

# CODE OF PRACTICE FOR CONTROL OF DANGEROUS GOODS ON LAND

# January 2025

[Published under Section 5A of the Dangerous Goods Ordinance (Cap. 295)]

Fire Services Department website: http://www.hkfsd.gov.hk/dg/

Published by Fire Services Department

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First issue : March 2022 This revision : January 2025

# **About the Code of Practice**

### Foreword

This Code of Practice shall be titled "The Code of Practice for Control of Dangerous Goods on Land" hereinafter referred to as "The Code".

The Code is a statutory document issued under section 5A of the Dangerous Goods Ordinance (Cap. 295), by the Director of Fire Services who reserves the right to revise the whole or any part of this document. It was first published in March 2022 and revised in January 2025 to provide practical guidance in respect of any one or more of the requirements of Cap. 295 or of regulations made under Cap. 295.

The Code has a special legal status, although failure to observe any guideline given in the Code is not of itself incur any criminal liability, that failure may be taken by a court in criminal proceedings as a relevant factor in determining whether or not a person has breached any of the provisions of the Dangerous Goods Ordinance and its subsidiary legislation to which the guideline relates.

# **Using the Code**

The Code shall be read in conjunction with the Dangerous Goods Ordinance and its subsidiary legislation and shall be effective from 1.1.2025.

The Code is an important technical resource to help the Dangerous Goods (DG) practitioners in Hong Kong to comply with the legal requirements of the Dangerous Goods Ordinance. It is important that all DG practitioners understand and comply with the requirements of the Code, including the consignors, packers, drivers and users, along with DG professionals and trainers.

Due to the inherent hazardous nature of DG, it is important to pay special care in the handling of these DG so as to minimise any danger to life and property.

# **Acknowledgements**

The Code is the beneficiary of the support of many stakeholders including trade organisations, industry players, advisory/consultative bodies and various Hong Kong Government's departments. Thus, we would like to express our sincere gratitude, listed in alphabetical order, to the following parties for their insightful suggestions and careful reading of the manuscript which finally bring the Code into completion:

# Advisory/Consultative Bodies

- Dangerous Goods Standing Committee (DGSC)
- FSD/Oil Industry Liaison Group
- Standing Advisory Committee (Oil Storage Installations)
- Tertiary Institutions Safety Advisory Group (TISAG)

# • Government Departments

- Buildings Department
- Civil Engineering and Development Department
- Department of Justice
- Environmental Protection Department
- Government Laboratory
- Labour Department
- Marine Department
- Trade and Industry Department

# **Enquiries**

Enquiries concerning the Code may be addressed to the following office:

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Email: hkfsd\_dg\_enq@hkfsd.gov.hk

# **Complaints**

Please call 2723 8787 (24 hours hotline) for making fire hazard complaints about DG.

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# Part I GENERAL PROVISIONS

# Chapter 1.1 <u>Scope and Application</u>

# 1.1.1 Structure

1.1.1.1 The Code consists of Parts I to VI. Each part is subdivided into chapters and each chapter into sections and sub-sections. Each paragraph is numbered with the numbers of the part, chapter, section and sub-section, for example, Part II, Chapter 1, Section 5 is numbered "2.1.5".

# 1.1.2 Scope

- 1.1.2.1 The Code provides detailed technical specifications and requirements for dangerous goods (DG) specified in Schedule 2 of the Dangerous Goods (Application and Exemption) Regulation 2012 (Cap. 295E) on land in Hong Kong covering:
  - (a) the definition and classification of DG as well as the mixed storage restriction;
  - (b) the packing, marking and labelling requirements for DG;
  - (c) the special packing requirements for Class 2 DG;
  - (d) the decommissioning of tank previously used for storing DG; and
  - (e) the safety precautions for conveyance of Classes 2, 3 and 3A DG.
- 1.1.2.2 The provisions in the Code will be taken into consideration in the enforcement of the Dangerous Goods Ordinance (Cap. 295), and its subsidiary legislation. The details of the legislation can be found on Hong Kong e-Legislation website at: https://www.elegislation.gov.hk.

# 1.1.3 Application

1.1.3.1 Where there is any conflict between the Dangerous Goods Ordinance and its subsidiary legislation and the provisions of the Code, the Ordinance and its subsidiary legislation take precedence.

- 1.1.3.2 Where the application of a standard is required and there is any conflict between the standard and the provisions of the Code, the Code takes precedence.
- 1.1.3.3 Regarding the classification of DG, reference has been made to the International Maritime Dangerous Goods Code (IMDG Code) for aligning with international DG classification. However, not all the chemicals or substances which are classified as DG under IMDG Code are regulated by the Fire Services Department (FSD). Generally, the following listed chemical types or substances are not subject to the regulation of FSD under the Dangerous Goods Ordinance:
  - Ammunition or bombs
  - Batteries or fuel cells
  - Elevated temperature substances
  - Environmentally / health hazardous substances
  - Fire extinguishers
  - Gases regulated under Cap. 51 (e.g. town gas, liquefied petroleum gas, natural gas etc.)
  - Infectious substances
  - Machine, equipment or articles containing DG
  - Medicines, plants, animals or food
  - Non-pressurized gases
  - Pesticides / insecticides
  - Radioactive materials
  - Substances giving off harmful substance when involved in fire
- 1.1.3.4 As the list in 1.1.3.3 is not exhaustive, further reference shall be made to the Schedule 2 of Cap. 295E for clarifications.
- 1.1.4 Discretionary Powers of the Director of Fire Services
- 1.1.4.1 Compliance with the prescriptive provisions in the Code may be regarded as a reliable way to satisfy the requirements of the Dangerous Goods Ordinance and its subsidiary legislation. However, due to the rapid technological development around the world, the Director of Fire Services may, in the case of any particular DG, vary any of the requirements of the Code (whether by adding to the Code, substituting

its provisions, relaxing any of the requirements in the Code or otherwise) where, in his opinion, such a variation is required.

# Chapter 1.2 <u>Units of Measurement</u>

# 1.2.1 Table for Units of Measurement

# 1.2.1.1 The following units of measurement\* are applicable in the Code:

Measurement of:	SI Unit <sup>a</sup>	Acceptable	Relationship
		alternative unit	between units
Length	m (metre)	_	_
Area	m <sup>2</sup> (square metre)	_	_
Volume	m <sup>3</sup> (cubic metre)	L <sup>b</sup> (litre)	$1 L = 10^{-3} m^3$
Time	s (second)	min (minute)	$1 \min = 60 \text{ s}$
		h (hour)	1  h = 3600  s
		d (day)	1 d = 86,400 s
Mass	kg (kilogram)	g (gram)	$1 g = 10^{-3} kg$
		t (tonne)	$1 t = 10^3 kg$
Mass density	kg/m <sup>3</sup>	kg/L	1 kg/L =
			$10^3 \text{ kg/m}^3$
Temperature	K (kelvin)	°C (degree Celsius)	$0^{\circ}$ C = 273.15 K
Difference of	K (kelvin)	°C (degree Celsius)	1°C = 1 K
temperature			
Force	N (newton)	_	$1 N = 1 kg \cdot m/s^2$
Pressure	Pa (pascal)	bar (bar)	$1 \text{ bar} = 10^5 \text{ Pa}$
			$1 \text{ Pa} = 1 \text{ N/m}^2$
Stress	N/m <sup>2</sup>	N/mm <sup>2</sup>	$1 \text{ N/mm}^2 = 1 \text{ MPa}$
Work	J (joule)	kWh (kilowatt	1  kWh = 3.6  MJ
		hour)	
Energy	J (joule)	-	1 J = 1 N·m =
			1 W·s
Quantity of heat	J (joule)	eV (electronvolt)	1  eV = 0.1602  x
			10 <sup>-18</sup> J
Power	W (watt)	_	1  W = 1  J/s =
			1 N·m/s
Electrical	Ω (ohm)	_	$1\Omega = 1 \text{ kg} \cdot \text{m}^2 \cdot$

resistance			s⁻³ • A⁻²
Kinematic	$m^2/s$	$mm^2/s$	$1 \text{ mm}^2/\text{s} =$
viscosity			$10^{-6}  \text{m}^2/\text{s}$
Dynamic viscosity	Pa·s	mPa·s	1 mPa·s =
			10 <sup>-3</sup> Pa·s
Conductivity	S/m	_	_
	(siemens/metre)		

<sup>\*</sup> The following round figures are applicable for the conversion of the units hitherto used into The International System of Units (SI).

<sup>&</sup>lt;sup>b</sup> The abbreviation "l" for litre may also be used in place of the abbreviation "L".

T.	G.		
Force	Stress		
1  kg = 9.807  N	$1 \text{ kg/mm}^2 = 9.807 \text{ N/mm}^2$		
1  N = 0.102  kg	$1 \text{ N/mm}^2 = 0.102 \text{ kg/mm}^2$		
Pressure			
$1 \text{ Pa} = 1 \text{ N/m}^2 = 10^{-5} \text{ bar}$	$= 1.02 \text{ x } 10^{-5} \text{ kg/cm}^2$	$= 0.75 \times 10^{-2} \text{ torr}$	
$1 \text{ bar} = 10^5 \text{ Pa}$	$= 1.02 \text{ kg/cm}^2$	= 750 torr	
$1 \text{ kg/cm}^2 = 9.807 \text{ x } 10^4 \text{ Pa}$	= 0.9807 bar	= 736 torr	
$1 \text{ torr} = 1.33 \times 10^2 \text{ Pa}$	$= 1.33 \times 10^{-3} \text{ bar}$	$= 1.36 \times 10^{-3} \text{kg/cm}^2$	
Work, Energy, Quantity	of heat		
1 J = 1 N m	$= 0.278 \times 10^{-6} \text{ kWh}$	$=0.102 \text{ kg} \cdot \text{m}$	= 0.239  x
			10 <sup>-3</sup> kcal
$1 \text{ kWh} = 3.6 \text{ x } 10^6 \text{ J}$	$= 367 \times 10^3 \text{ kg} \cdot \text{m}$	= 860 kcal	
$1 \text{ kg} \cdot \text{m} = 9.807 \text{ J}$	$= 2.72 \times 10^{-6} \text{ kWh}$	$= 2.34 \times 10^{-3} \text{ kcal}$	
$1 \text{ kcal} = 4.19 \text{ x } 10^3 \text{ J}$	$= 1.16 \times 10^{-3} \text{ kWh}$	= 427 kg·m	
Power		Kinematic	
		viscosity	
$1 \text{ W} = 0.102 \text{ kg} \cdot \text{m/s}$	= 0.86  kcal/h	$1 m^2/s = 10^4 St$	
		(Stokes)	
$1 \text{ kg} \cdot \text{m/s} = 9.807 \text{ W}$	= 8.43 kcal/h	$1 \text{ St} = 10^{-4} \text{ m}^2/\text{s}$	

<sup>&</sup>lt;sup>a</sup> SI is the result of decisions taken at the General Conference on Weights and Measures.

The decimal multiples and sub-multiples of a unit may be formed by prefixes or symbols, having the following meanings, placed before the name or symbol of the unit:

Multiplying Factor				Prefix	Symbol
1,000,000,000,000,000,000	=	1018	(quintillion)	exa	Е
1,000,000,000,000,000	=	$10^{15}$	(quadrillion)	peta	P
1,000,000,000,000	=	$10^{12}$	(trillion)	tera	T
1,000,000,000	=	109	(billion)	giga	G
1,000,000	=	$10^{6}$	(million)	mega	M
1,000	=	$10^{3}$	(thousand)	kilo	k
100	=	$10^{2}$	(hundred)	hecto	h
10	=	$10^{1}$	(ten)	deca	da
0.1	=	10-1	(tenth)	deci	d
0.01	=	10-2	(hundredth)	centi	c
0.001	=	10-3	(thousandth)	milli	m
0.000,001	=	10-6	(millionth)	micro	μ
0.000,000,001	=	10-9	(billionth)	nano	n
0.000,000,000,001	=	10 <sup>-12</sup>	(trillionth)	pico	p
0.000,000,000,000,001	=	10-15	(quadrillionth)	femto	f
0.000,000,000,000,000,001	=	10-18	(quintillionth)	atto	a
Note: $10^9 = 1$ billion is United	l Nation	s usage in I	English. By analogy	$\frac{1}{10^{-9}} = 11$	oillionth.

1.2.1.2 Whenever the mass of a package is mentioned, the gross mass is meant unless otherwise stated.

- 1.2.1.3 Unless expressly stated otherwise, the sign "%" represents:
  - (a) in the case of mixtures of solids or of liquids, and also in the case of solutions and of solids wetted by a liquid: a percentage mass based on the total mass of the mixture, the solution or the wetted solid;
  - (b) in the case of mixtures of compressed gases: when filled by pressure, the proportion of the volume indicated as a percentage of the total volume of the gaseous mixture, or, when filled by mass, the proportion of the mass indicated as a percentage of the total mass of the mixture;
  - (c) in the case of mixtures of liquefied gases and gases dissolved under pressure: the proportion of the mass indicated as a percentage of the total mass of the mixture.
- 1.2.1.4 Pressures of all kinds relating to pressure receptacles (such as test pressure, internal pressure, safety-valve opening pressure) are always indicated in gauge pressure (pressure in excess of atmospheric pressure); however, the vapour pressure of substances is always expressed in absolute pressure.

# Chapter 1.3 <u>Interpretations</u>

In the Code, unless otherwise specified:

"Aggregate EQ", in relation to the storage or conveyance of multiple types of DG, means the following quantities:

For storage of multiple types of DG:									
	General & Special	Industrial Premises							
	<u>Premises</u>								
Class 2 DG	300 L	450 L							
	(water capacity)	(water capacity)							
Class 3 DG	100 L	150 L							
Class 4, 5, 6.1, 8 or 9 DG	100 L (liquid) /kg	1000 L (liquid) /kg							
(except Special Class 5.1, 6.1	(solid)	(solid)							
or 8 DG)									
Special Class 5.1, 6.1 or 8 DG <sup>2</sup>	250 L (liquid) /kg	1000 L (liquid) /kg							
	(solid)	(solid)							
Paint Materials	250 L								
For conveyance of multiple type	es of DG:								
Class 2 DG	300 L (water capacity)								
Class 3 DG	100 L								
Class 4, 5, 6.1, 8 or 9 DG	100 L (liquid) /kg (solid)								
(except Special Class 5.1, 6.1 or									
8 DG)									
Special Class 5.1, 6.1 or 8 DG	250 L (liquid) /kg (solid)								
Paint Materials	250	) L							

"Box" means packaging with complete rectangular or polygonal faces, made of metal, wood, plywood, reconstituted wood, fibreboard, plastics, or other suitable materials. Small holes for purposes such as ease of the handling or opening of the box or to meet classification

<sup>&</sup>lt;sup>1</sup> Sections 10, 13, 17 and 22 of Cap. 295E.

Special Class 5.1 DG means: UN 1748, UN 2208, UN 2880, UN 3212, UN 3485, UN 3486 or UN 3487

Special Class 6.1 DG means: UN 1671, UN 2022, UN 2076, UN 2312, UN 2821, UN 3430 or UN 3455

Special Class 8 DG means: UN 1791 or UN 2693

provisions are permitted as long as they do not compromise the integrity of the packaging.

"Bag" means flexible packaging made of paper, plastic film, textiles, woven material, or other suitable materials.

"Cap. 295E" means the Dangerous Goods (Application and Exemption) Regulation 2012.

"Cap. 295G" means the Dangerous Goods (Control) Regulation.

"Combination packaging" means a combination of packagings consisting of one or more inner packagings secured in an outer packaging.

"Composite packaging" means packaging consisting of an outer packaging and an inner receptacle so constructed that the inner receptacle and the outer packaging form an integral packaging. Once assembled, it remains thereafter an integrated single unit; it is filled, stored, conveyed and emptied as such.

"Consumer packs", in relation to S2DG, means—

- (a) for pre-packed Schedule 2 dangerous goods—the capacity of the receptacle forming part of the pre-packed Schedule 2 dangerous goods does not exceed the maximum package size (if any) specified in column 9 of the table in Part 2, 3 or 4 of Schedule 2 of Cap. 295E in relation to the dangerous goods; or
- (b) for the dangerous goods that are contained directly without any form of intermediate containment in a receptacle—the capacity of the receptacle does not exceed the maximum package size (if any) specified in column 9 of the table in relation to the dangerous goods;

"Control temperature" means the maximum temperature at which certain substances (such as organic peroxides and self-reactive and related substances) can be safely handled during a prolonged period of time.

"Dangerous Goods" (DG) means DG specified in Schedule 2 of Cap. 295E.

"DG List" means the DG Lists in Appendices 1, 2 and 3 of the Code.

"Drum" means flat-ended or convex-ended cylindrical packaging made of metal, fibreboard, plastics, plywood or other suitable materials. This definition also includes packaging of other shapes, such as round taper-necked packagings, or pail-shaped packagings. Wooden barrel and jerrican are not covered by this definition.

"Effectively closed" means liquid-tight closure.

"Emergency temperature" means the temperature at which emergency procedures shall be implemented.

"Filling ratio" means:

- (a) For liquefied gases and dissolved gases, the ratio of the mass of gas to the mass of water at 15°C that would fill completely a pressure receptacle fitted ready for use; and
- (b) For compressed gases, the working pressure in a pressure receptacle.

"Flashpoint" is the lowest temperature of a liquid at which its vapour forms an ignitable mixture with air.

"General exempt quantity" (GEQ), in relation to S2DG, means the quantity specified in column 5 of the table in Part 2, 3 or 4 of Schedule 2 of Cap. 295E in relation to those dangerous goods.

"Hermetically sealed" means vapour-tight closure.

"High pressure liquefied gas" means a gas with a critical temperature between -50°C and +65°C.

"IMDG Code" means the International Maritime Dangerous Goods Code published by the International Maritime Organization, as amended or revised by the Organization from time to time.

"Industrial exempt quantity" (IEQ), in relation to S2DG, means the quantity specified in column 6 of the table in Part 2, 3 or 4 of Schedule 2 of Cap. 295E in relation to those dangerous goods.

"Jerrican" means metal or plastics packaging of rectangular or polygonal cross-section.

"Limited packs", in relation to S2DG, means—

- (a) for pre-packed Schedule 2 dangerous goods—the capacity of the receptacle forming part of the pre-packed Schedule 2 dangerous goods does not exceed the limited quantity (if any) specified in column 8 of the table in Part 2, 3 or 4 of Schedule 2 of Cap. 295E in relation to the dangerous goods; or
- (b) for the dangerous goods that are contained directly without any form of intermediate containment in a receptacle—the capacity of the receptacle does not exceed the limited quantity (if any) specified in column 8 of the table in relation to the dangerous goods.

"Low pressure liquefied gas" means a gas with a critical temperature above +65°C.

"Maximum capacity" means the maximum inner volume of receptacles or packagings expressed in litres.

"Maximum net mass" means the maximum net mass of contents in a single packaging or maximum combined mass of inner packagings and the contents thereof and is expressed in kilograms.

"Non-refillable pressure receptacle" means a pressure receptacle that:

- (a) contains or has contained Class 2 S2DG; and
- (b) is not constructed or intended to be refilled with Class 2 S2DG.

"Package" means the complete product of the packing operation, consisting of the packaging and its contents.

"Packaging" and "S2DG packaging" means any receptacle (including a receptacle that forms part of pre-packed S2DG), tank or material for receiving, holding or enclosing S2DG, but does not include any freight container, aircraft container or vehicle.

"Pressure receptacle" means a receptacle used for containing Class 2 S2DG under pressure, other than a boiler or a pressure vessel as defined by section 2(1) of the Boilers and Pressure Vessels Ordinance (Cap. 56).

"Proper shipping name" refers to the description of a DG in CAPITAL letters (plus any numbers, Greek letters, "sec", "tert", and the letters m, n, o, p, which form an integral part of the name) as stated in column 2 of the DG List.

"S2DG" means Schedule 2 dangerous goods which are DG specified in Schedule 2 of Cap. 295E.

"Securely closed" means so closed that dry contents cannot escape during normal handling.

"Service equipment" of a pressure receptacle means closure(s), manifold(s), piping, porous, absorbent or adsorbent material and any structural devices, e.g. for handling.

"Sift-proof packaging" means the packaging which is impermeable to dry contents, including fine solid material.

"Special exempt quantity" (SEQ), in relation to S2DG, means the quantity specified in column 7 of the table in Part 2, 3 or 4 of Schedule 2 of Cap. 295E in relation to those dangerous goods.

"Suitable", in relation to S2DG packaging, means the packaging is—

- (a) well constructed so as to prevent any loss of contents from the S2DG packaging, unless the packaging is designed to release some contents for safety reason;
- (b) in good condition;
- (c) of such a character and construction that any interior surface with which the contents may come into contact is not adversely

- affected by the contents;
- (d) capable of withstanding ordinary risks during storage, handling or conveyance; and
- (e) capable of withstanding any pressure likely to be generated in it in the course of normal use.

"Tank" means a static tank or a reservoir used to contain S2DG.

"Tank-container" means a movable freight container designed for containing S2DG directly without any form of intermediate containment.

"Test pressure" means the required pressure applied to a packaging during a pressure test for qualification or requalification.

"Type of DG" is identified by the combination of the following information of the DG:

- (a) the UN number / HK number;
- (b) the packing group (if any);
- (c) proper shipping name;
- (d) the class; and
- (e) the subsidiary hazard (if any).

"UN number" in relation to Schedule 2 dangerous goods, means the number specified in column 1 of the table in Part 2 or 3 of Schedule 2 in relation to the dangerous goods and preceded by the alphabets "UN".

"Working pressure" (i) for a compressed gas, means the settled pressure at a reference temperature of 15°C in a pressure receptacle; (ii) for UN1001 acetylene, dissolved, means the calculated settled pressure at a uniform reference temperature of 15°C in an acetylene cylinder containing the specified solvent content and the maximum acetylene content; and (iii) for UN3374 acetylene, solvent free, means the working pressure which was calculated for the equivalent cylinder for UN1001 acetylene, dissolved.

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<sup>&</sup>lt;sup>3</sup> Section 3 of Cap. 295E.

# Chapter 1.4 <u>Abbreviations</u>

BP - basic packing instruction

CG - compatibility group
CR - compatibility rule
DG - dangerous goods
EQ - exempt quantity

FSD - Fire Services Department
GEQ - general exempt quantity
IEQ - industrial exempt quantity

IMDG Code - International Maritime Dangerous Goods Code

LQ - limited quantity

MPS - maximum package size
 N.O.S. - not otherwise specified
 OSI - oil storage installation
 PFS - petrol filling station

PG - packing group

PML - packing, marking and labelling

PSN - proper shipping name

SADT - self-accelerating decomposition temperature
SAPT - self-accelerating polymerization temperature

SDA - static dissipative additive
 SEQ - special exempt quantity
 SN - supplementary note

SP - special packing instruction

# Part II <u>CLASSIFICATION AND COMPATIBILITY OF DG</u>

# Chapter 2.1 <u>General Provisions</u>

2.1.1 Classes, Proper Shipping Name and Packing Groups

DG presenting a danger of a particular class is assigned to that class and packing group, if applicable. For the purpose of the Ordinance, DG are substances listed in the Schedule 2 of Cap. 295E and are specifically listed and identified by UN number(s) / HK number(s) and proper shipping names (PSN) with their appropriate classes, subsidiary hazard(s) and, when applicable, packing groups, etc.

### 2.1.1.1 Classes

2.1.1.1.1 Substances (including mixtures and solutions) subject to Cap. 295E are assigned to different classes according to the hazard or the most predominant of the hazards they present. Those classes are:

# Class 2: Gases

- Class 2.1: Flammable gases

- Class 2.2: Non-flammable and non-toxic gases

- Class 2.3: Toxic gases

# Class 3: Flammable liquids

Class 3A: Diesel, fuel oil and furnace oil, having flashpoints exceeding 60°C (closed-cup test)

Class 4: Flammable solids; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases

- Class 4.1: Flammable solids, self-reactive substances, solid desensitized explosives and polymerizing substances

- Class 4.2: Substances liable to spontaneous combustion

- Class 4.3: Substances which in contact with water emit flammable gases

Class 5: Oxidizing substances and organic peroxides

- Class 5.1: Oxidizing substances

- Class 5.2: Organic peroxides

Class 6.1: Toxic substances

Class 8: Corrosive substances

Class 9: Miscellaneous dangerous substances or materials

# 2.1.1.2 Proper Shipping Name

- 2.1.1.2.1 DG are assigned with UN number(s) / HK number(s) and proper shipping name(s) (PSN) according to their hazard classification and their composition as listed in the DG List.
- Where a DG is specifically listed by name, it shall be identified by the proper shipping name in the DG List. Such DG may contain technical impurities (for example those deriving from the production process) or additives for stability or other purposes that do not affect their classification. However, a DG listed by name containing technical impurities or additives for stability or other purposes affecting its classification shall be considered a mixture or solution. For DG not specifically listed by name, "generic" or "not otherwise specified" (N.O.S.) entries are provided to identify the DG.
- 2.1.1.2.3 Proper shipping names are of the following four types:
  - (a) Single entries for well-defined substances:
    - e.g. UN 1090 ACETONE
      UN 1194 ETHYL NITRITE SOLUTION;

- (b) Generic entries for well-defined group of substances:
  - e.g. UN 1133 ADHESIVES
    UN 1266 PERFUMERY PRODUCT
    UN 3101 ORGANIC PEROXIDE, TYPE B, LIQUID;
- (c) Specific N.O.S. entries covering a group of substances of a particular chemical or technical nature:
  - e.g. UN 1477 NITRATES, INORGANIC, N.O.S. UN 1987 ALCOHOLS, N.O.S.
- (d) General N.O.S. entries covering a group of substances meeting the criteria of one or more hazard classes:
  - e.g. UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. UN 1993 FLAMMABLE LIQUID, N.O.S.
- 2.1.1.2.4 Substances, including mixture and solution, which are not specifically listed by name in the DG List shall be classified under a "generic" or "N.O.S." entry which most appropriately describes the substance. This means that a substance is only be assigned to an entry of type (c) if it cannot be assigned to an entry of type (b), and to an entry of type (d) if it cannot be assigned to an entry of type (b) or (c).
- 2.1.1.2.5 If test data showed that a substance listed by proper shipping name in the DG List does not meet the classification criteria for any hazard class or subsidiary hazard(s) identified in the DG List, the substance may be assigned:
  - (a) Under the most appropriate generic or N.O.S. entry reflecting all hazards; or
  - (b) Under the same UN number and proper shipping name but with additional hazard information as appropriate to reflect the additional subsidiary hazard(s) provided that the primary hazard class remains unchanged and that any other conditions (e.g. limited quantity, etc.) that would normally apply to substances possessing such a combination of hazards are the same as those applicable to the DG listed.

# 2.1.1.3 Packing Groups

2.1.1.3.1 Most substances other than those of Classes 2, 3A, 5.2 and self-reactive substances of Class 4.1 are assigned to three packing groups, which are indicated in the corresponding packing group entries in the DG List, in accordance with the degree of danger they present:

Packing group I (PG I): Substances presenting high danger; Packing group II (PG II): Substances presenting medium danger; and Packing group III (PG III): Substances presenting low danger.

- 2.1.1.3.2 The packing group to which a substance is assigned is indicated in Column 2 of the DG List.
- 2.1.1.3.3 When a substance is specifically listed by name in the DG List, its class, subsidiary hazard(s) and, when applicable, packing group are taken from that List.
- 2.1.1.3.4 DG meeting the defining criteria of more than one hazard class and which are not listed by name in the DG List, are assigned to a class and subsidiary hazard(s) on the basis of the precedence of hazards prescribed in 2.1.2.
- 2.1.2 Precedence of Hazard Characteristics
- 2.1.2.1 The table below should be used to determine the class of a substance, mixture or solution having more than one hazard, when it is not named in the DG List. For substance having multiple hazards which are not specifically listed by name in the DG List, the most stringent packing group denoted to the respective hazards of the substance takes precedence over other packing groups, irrespective of the Table for Precedence of Hazards in this Chapter. The precedence of hazard characteristics of the following has not been dealt with in the Table for Precedence of Hazards in 2.1.2.3, as these primary characteristics always take precedence:
  - (a) Gases of Class 2;
  - (b) Liquid desensitised explosives of Class 3;

- (c) Self-reactive substances and solid desensitised explosives of Class 4.1;
- (d) Pyrophoric substances of Class 4.2;
- (e) Substances of Class 5.2;
- (f) Substances of Class 6.1 with a packing group I inhalation toxicity (Except for substances or preparations meeting the criteria of Class 8 having an inhalation toxicity of dust and mists (LC<sub>50</sub>) in the range of packing group I, but toxicity through oral ingestion or dermal contact only in the range of packing group III or less, which shall be allocated to Class 8).
- 2.1.2.2 The Table for Precedence of Hazards indicates which of the hazards shall be regarded as the primary hazard. The class which appears at the intersection of the horizontal line and the vertical column is the primary hazard and the remaining class is the subsidiary hazard. The packing groups for each of the hazards associated with the substance, mixture or solution shall be determined by reference to the appropriate criteria. The most stringent of the groups so indicated shall then become the packing group of the substance, mixture or solution.

### Table for Precedence of Hazards 2.1.2.3

Clas	s and Packing	4.2	4.3	5.1, I	5.1, II	5.1, III	6.1, I	6.1, I	6.1, II	6.1, III	-	8, I	8, II	8, II	8, III	8, III
	Group						Dermal	Oral			Liquid	Solid	Liquid	Solid	Liquid	Solid
-	¥0		4.0				2		2	2	2		2		2	
3	$I^a$		4.3				3	3	3	3	3	_	3	_	3	_
3	$\mathrm{II}^{\mathrm{a}}$		4.3				3	3	3	3	8	_	3	_	3	_
3	III <sup>a</sup>		4.3				6.1	6.1	6.1	3	8	_	8	_	3	_
4.1	$II^a$	4.2	4.3	5.1	4.1	4.1	6.1	6.1	4.1	4.1	_	8	_	4.1	_	4.1
4.1	III <sup>a</sup>	4.2	4.3	5.1	4.1	4.1	6.1	6.1	6.1	4.1	_	8	_	8	_	4.1
4.2	II		4.3	5.1	4.2	4.2	6.1	6.1	4.2	4.2	8	8	4.2	4.2	4.2	4.2
4.2	III		4.3	5.1	5.1	4.2	6.1	6.1	6.1	4.2	8	8	8	8	4.2	4.2
4.3	I			5.1	4.3	4.3	6.1	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
4.3	II			5.1	4.3	4.3	6.1	4.3	4.3	4.3	8	8	4.3	4.3	4.3	4.3
4.3	III			5.1	5.1	4.3	6.1	6.1	6.1	4.3	8	8	8	8	4.3	4.3
5.1	I						5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
5.1	II						6.1	5.1	5.1	5.1	8	8	5.1	5.1	5.1	5.1
5.1	III						6.1	6.1	6.1	5.1	8	8	8	8	5.1	5.1
6.1	I Dermal										8	6.1	6.1	6.1	6.1	6.1
6.1	I Oral										8	6.1	6.1	6.1	6.1	6.1
6.1	II Inhalation										8	6.1	6.1	6.1	6.1	6.1
6.1	II Dermal										8	6.1	8	6.1	6.1	6.1
6.1	II Oral										8	8	8	6.1	6.1	6.1
6.1	III										8	8	8	8	8	8

Table notes: <sup>a</sup> Substances of Class 4.1 other than self-reactive substances and solid desensitised explosives and substances of Class 3 other than liquid desensitised explosives.

Denotes an impossible combination.
 For hazards not shown in this table, see 2.1.2.1.

- 2.1.3 Supplementary Notes
- 2.1.3.1 Supplementary notes (SN) of some DG are provided in column 6 of the DG List in Appendices 1 to 3. The meanings of those SN are listed in Appendix 4. The SN apply regardless of the quantity of that DG, unless otherwise specified.

# Chapter 2.2 <u>Class Specific Provisions</u>

- 2.2.1 (*Reserved*)
- 2.2.2 *Class 2 Gases*
- 2.2.2.1 Scope
- 2.2.2.1.1 Class 2 includes gas substance which at 50°C has a vapour pressure greater than 300 kPa or is completely gaseous at 20°C at a standard pressure of 101.3 kPa. It comprises compressed gases, liquefied gases, dissolved gases, refrigerated liquefied gases, adsorbed gases, mixtures of one or more gases with one or more vapours of substances of other classes, articles charged with a gas, aerosols and chemicals under pressure.

# 2.2.2.1.2 A gas is described according to its physical state as:

- (a) **Compressed gas**: a gas which when packaged under pressure is entirely gaseous at -50°C; this category includes all gases with a critical temperature less than or equal to -50°C;
- (b) **Liquefied gas**: a gas which when packaged under pressure is partially liquid at temperatures above -50°C;
- (c) **Refrigerated liquefied gas**: a gas which when packaged is made partially liquid because of its low temperature;
- (d) **Dissolved gas**: a gas which when packaged under pressure is dissolved in a liquid phase solvent; or
- (e) **Adsorbed gas**: a gas which when packaged is adsorbed onto a solid porous material resulting in an internal receptacle pressure of less than 101.3 kPa at 20°C and 300 kPa at 50°C.
- 2.2.2.1.3 According to their chemical properties or physiological effects, gases may be flammable; non-flammable; non-toxic; toxic; supporters of combustion; corrosive; or may possess two or more of these properties simultaneously.

## 2.2.2.2 Class subdivisions

Class 2 is subdivided according to the primary hazard of the gas:

## 2.2.2.2.1 Class 2.1 Flammable gases

Gases which at 20°C and a standard pressure of 101.3 kPa:

- (a) are ignitable when in a mixture of 13% or less by volume with air; or
- (b) have a flammable range with air of at least 12 percentage points regardless of the lower flammability limit.<sup>4</sup>

# 2.2.2.2.2 Class 2.2 Non-flammable, non-toxic gases

Gases which:

- (a) are asphyxiant: gases which dilute or replace the oxygen normally in the atmosphere; or
- (b) are oxidizing: gases which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does<sup>5</sup>; or
- (c) do not come under the other classes.

# 2.2.2.2.3 Class 2.3 Toxic gases<sup>6</sup>

Gases which:

(a) are known to be so toxic or corrosive to humans as to pose a hazard to health; or

<sup>&</sup>lt;sup>4</sup> Flammability shall be determined by tests or calculation in accordance with methods adopted by the International Organization for Standardization (see ISO 10156:2017). Where insufficient data are available to use these methods, tests by a comparable method recognised by a national competent authority may be used. In this regard, it is necessary to provide the test report as the proof upon request.

<sup>&</sup>lt;sup>5</sup> "Gases which may cause or contribute to the combustion of other material more than air does" means pure gases or gas mixtures with an oxidizing power greater than 23.5% as determined by a method specified in ISO 10156:2017.

<sup>&</sup>lt;sup>6</sup> Gases meeting the criteria 2.2.2.2.3 (a) or (b) owing to their corrosivity are to be classified as toxic with a subsidiary corrosive hazard.

- (b) are presumed to be toxic or corrosive to humans because they have a LC<sub>50</sub> value equal to or less than 5,000 ml/m<sup>3</sup> (ppm).
- 2.2.2.2.4 Gases and gas mixtures with hazards associated with more than one class take the following precedence:
  - (a) Class 2.3 takes precedence over all other classes;
  - (b) Class 2.1 takes precedence over Class 2.2.
- 2.2.2.2.5 Pursuant to Cap. 295E, the following Class 2 DG are not subject to Dangerous Goods Ordinance:
  - (a) Class 2 DG contained in inflated pneumatic tyres;
  - (b) Class 2 DG contained in inflated balls or balloons intended to be used for educational, recreational, scientific or other non-industrial purpose;
  - (c) Class 2 DG contained in lighting devices to enable the device to operate;
  - (d) Class 2 DG contained in inflated rubber cushions made of natural or synthetic rubber; and
  - (e) Class 2.2 DG compressed to the state of being not exceeding 200 kPa (2 bar) gauge pressure at 20°C.
- 2.2.2.2.6 As the list in 2.2.2.2.5 is not exhaustive, further reference shall be made to Cap. 295E for clarifications.

# 2.2.2.3 Mixtures of gases

Gas items having specific UN numbers shall be classified as stated in the DG List, including the packing groups, subsidiary hazards etc. For the classification of gas mixtures (including vapours of substances from other classes) or other gas items not specified in the DG List, the following principles shall be used:

- (a) Flammability shall be determined by tests or calculation in accordance with methods adopted by the International Organization for Standardization (see ISO Standard 10156:2017). Where insufficient data are available to use these methods, tests by a comparable method recognised by a national competent authority may be used. In this regard, it is necessary to provide the test report as the proof upon request; and
- (b) The level of toxicity is determined either by tests to measure the LC<sub>50</sub> value or by a calculation method in 2.2.3.2 in IMDG Code or 2.2.3(b) in Recommendations on the Transport of Dangerous Goods Model Regulations.
- 2.2.2.3.1 A gas mixture has a subsidiary hazard of corrosivity when the mixture is known by human experience to be destructive to the skin, eyes or mucous membranes or when the LC<sub>50</sub> value of the corrosive components of the mixture is equal to or less than 5,000 ml/m³ (ppm) by calculation in 2.2.3.2 in IMDG Code or 2.2.3(c) in Recommendations on the Transport of Dangerous Goods Model Regulations.
- 2.2.2.3.2 Oxidizing ability is determined either by tests or by calculation methods adopted by ISO (see the Note in 2.2.2.2.2(b) and ISO 10156:2017).
- 2.2.3 Class 3 Flammable Liquids
- 2.2.3.1 Scope
- 2.2.3.1.1 Class 3 includes flammable liquids and liquid desensitized explosives. Flammable liquid items/liquid desensitized explosives having specific UN numbers shall be classified as stated in the DG List, including the packing groups, subsidiary hazards etc. For the items which are not specified in DG List but possible to be classified as Class 3 DG, the flashpoint, initial boiling point and viscosity shall be determined. In general, flammable liquids are liquids, or mixture of liquids, or liquids containing solids in solution or suspension (such as paints, varnishes, lacquers, etc., but not including substances which, on account of their other dangerous characteristics, have been included in other classes)

which have a flashpoint at or below 60°C (closed-cup test). In countries where it is customary to determine flashpoints by the open-cup method, the temperatures given by that method would need to be reduced to correspond with those in the Code.

- 2.2.3.1.2 The flashpoint of a flammable liquid is the lowest temperature of the liquid at which its vapour forms an ignitable mixture with air. It gives a measure of the risk of formation of explosive or ignitable mixtures when the liquid escapes from its packing. A flammable liquid cannot be ignited so long as its temperature remains below the flashpoint.
- 2.2.3.1.3 The test methods of flashpoint determination can be divided into two groups, depending on the use in an apparatus of an open receptacle (open-cup methods) or a closed one which is only opened to admit the flame (closed-cup methods). As a rule, the flashpoints found in an open-cup test are a few degrees higher than in a closed-cup test. In general, reproducibility in closed-cup apparatus is better than in open-cup. It is therefore flashpoints shall be determined by means of closed-cup methods.
- 2.2.3.1.4 Liquid desensitized explosives are explosive substances (UN 1204, UN 2059, UN 3064, UN 3343, UN 3357 and UN 3379 in the DG List) which are dissolved or suspended in water or other liquid substances, to form a homogeneous liquid mixture to suppress their explosive properties.
- 2.2.3.1.5 Liquids meeting the definition in 2.2.3.1.1 with a flashpoint of more than 35°C which do not sustain combustion need not be considered as flammable liquid. Liquids are considered to be unable to sustain combustion for the purposes of the Code if:
  - (a) they have passed the suitable combustibility test<sup>7</sup>; or
  - (b) their fire point according to ISO 2592:2017 is greater than 100°C; or

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The Sustained Combustibility Test prescribed in Part III, sub-section 32.5.2 of the United Nations Manual of Tests and Criteria.

(c) they are water-miscible solutions with a water content of more than 90%, by mass.

### 2.2.3.2 Assignment of packing group of Class 3 DG

2.2.3.2.1 Flammable liquids are grouped for packing purposes according to their flashpoint, their initial boiling point, and their viscosity<sup>8</sup>. Table in 2.2.3.2.2 shows the packing group for the substance whose only hazard is flammability.

#### 2.2.3.2.2 Packing group based on flammability

Packing Group	Flashpoint in °C	Initial Boiling Point
	(closed-cup)	in °C
I	_	≤ 35
II	< 23	> 35
III	$\geq 23 \text{ to } \leq 60$	> 35

- 2.2.3.2.3 For a liquid with additional hazard(s), the packing group determined from 2.2.3.2.2 and the packing group based on the severity of the additional hazard(s) shall be considered, and the classification and packing group determined in accordance with the provisions in Chapter 2.1.
- 2.2.3.2.4 Viscous flammable liquids such as paints, enamels, lacquers, varnishes, adhesives and polishes with a flashpoint of less than 23°C may be placed in packing group III in conformity with the procedures prescribed in the United Nations Manual of Tests and Criteria, Part III sub-section 32.3, which provided that:
  - (a) less than 3% of the clear solvent layer separates in the solvent separation test;

Reference method for viscosity determination may be found in Part III, sub-section 32.4.3 of the United Nations Manual of Tests and Criteria. Where the substance concerned is non-Newtonian, or when a flow cup method of viscosity determination is unsuitable, a variable shear-rate viscometer shall be used to determine the dynamic viscosity coefficient of the substance, at 23°C, at a number of shear-rates. The values obtained are plotted against shear rate and then extrapolated to zero shear rate. The dynamic viscosity thus obtained, divided by the density, gives the apparent kinematic viscosity at near-zero shear rate.

- (b) the mixture or any separated solvent does not meet the criteria for Class 6.1 or Class 8;
- (c) the capacity of the receptacle used does not exceed 450 L; and
- (d) the viscosity and flashpoint are in accordance with the following table:

Kinematic Viscosity	Flow time (t)	Jet	Flashpoint in
(extrapolated) (υ)	in seconds	Diameter	°C (closed-
(at near-zero shear rate)		in mm	cup test)
mm <sup>2</sup> /s at 23°C			
$20 < \upsilon \le 80$	$20 < t \le 60$	4	above 17
$80 < v \le 135$	$60 < t \le 100$	4	above 10
$135 < v \le 220$	$20 < t \le 32$	6	above 5
$220 < v \le 300$	$32 < t \le 44$	6	above −1
$300 < v \le 700$	$44 < t \le 100$	6	above –5
700 < υ	100 < t	6	−5 and below

- 2.2.3.2.5 The flashpoint of a flammable liquid may be altered by the presence of an impurity. The substances listed in Class 3 DG in the DG List shall generally be regarded as chemically pure. Since commercial products may contain added substances or impurities, flashpoints may vary, and this may have an effect on classification or determination of the packing group for the product. In the event of doubt regarding the classification or packing group of a substance, the flashpoint of the substance shall be determined experimentally. The reference methods for determining the flashpoint of flammable liquids may be found in 2.3.3.6 in IMDG Code or 2.3.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- 2.2.3.2.6 The reference methods for determining the initial boiling point of flammable liquids may be found in 2.3.4 in IMDG Code or 2.3.4 in Recommendations on the Transport of Dangerous Goods Model Regulations.

- 2.2.3a Class 3A Diesel or Fuel Oil or Furnace Oil
- 2.2.3a.1 Scope
- 2.2.3a.1.1 For the purposes of the Ordinance, Class 3A DG include diesel oils (distillates and/or light residuals), furnace oils and other fuel oils having a flashpoint exceeding 60°C (closed-cup test). Class 3A DG are assigned with HK number H301 and listed in Part 4 of Schedule 2 of Cap. 295E.

HK No.	<b>Proper Shipping Name</b>	Packing Group
11201	DIESEL or FUEL OIL or	111
H301	FURNACE OIL	111

2.2.4 Class 4 – Flammable Solids; Substances Liable to Spontaneous Combustion; Substances which, in Contact with Water, Emit Flammable Gases

## 2.2.4.1 Scope

#### 2.2.4.1.1 Class 4 DG are subdivided as follows:

(a) Class 4.1 – Flammable solids

Solids which are readily combustible or may cause or contribute to fire through friction; self-reactive substances (solids and liquids) and polymerizing substances which are liable to undergo a strong exothermic reaction; solid desensitized explosives which may explode if not diluted sufficiently;

- (b) Class 4.2 Substances liable to spontaneous combustion Substances (solids and liquids) which are liable to spontaneous heating, or to heating up in contact with air, and being then liable to catch fire;
- (c) Class 4.3 Substances which, in contact with water, emit flammable gases Substances (solids and liquids) which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
- 2.2.4.1.2 Class 4 DG having specific UN numbers shall be classified as stated in the DG List, including the packing groups, subsidiary hazards etc. However, for following substances which are not specified in the DG List but have properties possible to be classified as Class 4 DG, the corresponding test methods and criteria including advice on application of the tests are given in the United Nations Manual of Tests and Criteria for the classification<sup>9</sup>:

<sup>&</sup>lt;sup>9</sup> Test methods and criteria for self-reactive substances and polymerizing substances are given in Part II of the United Nations Manual of Tests and Criteria, and test methods and criteria for the other types of substances of Class 4 DG are given in the United Nations Manual of Tests and Criteria, Part III, section 33.

- (a) flammable solids (Class 4.1);
- (b) self-reactive substances (Class 4.1);
- (c) polymerizing substances (Class 4.1);
- (d) pyrophoric solids (Class 4.2);
- (e) pyrophoric liquids (Class 4.2);
- (f) self-heating substances (Class 4.2); and
- (g) substances which, in contact with water, emit flammable gases (Class 4.3).

#### 2.2.4.1.3 Class 4.1 DG include the following:

- (a) flammable solids;
- (b) self-reactive substances;
- (c) solid desensitized explosives; and
- (d) polymerizing substances.

#### 2.2.4.1.4 Flammable solids under Class 4.1

- 2.2.4.1.4.1 Flammable solids mean readily combustible solids and solids which may cause fire through friction.
- 2.2.4.1.4.2 Readily combustible solids mean fibres, powdered, granular, or pasty substances which are dangerous if they can be easily ignited by brief contact with an ignition source, and if the flame spreads rapidly. The danger may come not only from the fire but also from toxic combustion products. Metal powders are especially dangerous because of the difficulty of extinguishing a fire, since normal extinguishing agents such as carbon dioxide or water can increase the hazard.
- 2.2.4.1.4.3 Powdered, granular or pasty substances shall be classified as readily combustible solids of Class 4.1 when the time of burning of one or more of the test runs, performed in accordance with the test method described in the United Nations Manual of Tests and Criteria, Part III, sub-section 33.2.1, is less than 45 s or the rate of burning is more than 2.2 mm/s. Powders of metals or metal alloys shall be classified as Class 4.1 when they can be ignited and the reaction spreads over the whole length of the sample in 10 minutes or less.

- 2.2.4.1.4.4 Solids which may cause fire through friction shall be classified as Class 4.1 by analogy with existing entries until definitive criteria are established.
- 2.2.4.1.4.5 Assignment of packing groups of flammable solids
- 2.2.4.1.4.5.1 Criteria for the packing group assignment of Class 4.1 flammable solids are specified in the test method described in the United Nations Manual of Tests and Criteria, Part III, sub-section 33.2.1. For readily combustible solids (other than metal powders), packing group II shall be assigned if the burning time is less than 45 s and the flame passes the wetted zone. Packing group II shall be assigned to powders of metal or metal alloys if the zone of reaction spreads over the whole length of the sample in five minutes or less.
- 2.2.4.1.4.5.2 For readily combustible solids (other than metal powders), packing group III shall be assigned if the burning time is less than 45 s and the wetted zone stops the flame propagation for at least four minutes. Packing group III shall be assigned to metal powders if the reaction spreads over the whole length of the sample in more than five minutes but not more than ten minutes.
- 2.2.4.1.4.5.3 For solids which may cause fire through friction, the packing group shall be assigned by analogy with existing entries or in accordance with any appropriate special provision.
- 2.2.4.1.4.5.4 Pyrophoric metal powders, if wetted with sufficient water to suppress their pyrophoric properties, may be classified as Class 4.1.
- 2.2.4.1.5 Self-reactive substances under Class 4.1
- 2.2.4.1.5.1 Self-reactive substances<sup>10</sup> are thermally unstable substances liable to undergo a strong exothermic decomposition even without participation of oxygen (air). Substances are not considered to be self-reactive substances of Class 4.1, if:

Any substance which shows the properties of a self-reactive substance shall be classified as such, even if this substance gives a positive test result according to 2.2.4.2.3 - 2.2.4.2.7 for inclusion in Class 4.2.

- (a) they are Class 1 explosives;
- (b) they are Class 5.1 oxidizing substances except that mixtures of oxidizing substances which contain 5.0% or more of combustible organic substances<sup>11</sup>;
- (c) they are Class 5.2 organic peroxides;
- (d) their heat of decomposition 12 is less than 300 J/g; or
- (e) their self-accelerating decomposition temperature (SADT) (see 2.2.4.1.5.11) is greater than 75°C for a 50 kg package.
- 2.2.4.1.5.2 A mixture showing the properties of a self-reactive substance, type B to F, shall be classified as a self-reactive substance of Class 4.1.
- 2.2.4.1.5.3 A mixture showing the properties of a self-reactive substance, type G, but not listed in 2.2.4.5 shall be considered for classification as a substance of Class 5.1 (see 2.2.5.2).
- The decomposition of self-reactive substances can be initiated by heat, 2.2.4.1.5.4 contact with catalytic impurities (such as acids, heavy-metal compounds, bases), friction or impact. The rate of decomposition increases with temperature and varies with the substance. Decomposition, particularly if no ignition occurs, may result in the For certain self-reactive evolution of toxic gases or vapours. substances, the temperature shall be controlled. Some self-reactive substances may decompose explosively, particularly if confined. This characteristic may be modified by the addition of diluents or by the use of appropriate packagings. Some self-reactive substances burn Self-reactive substances are, for example, some vigorously. compounds of the types listed below:
  - (a) aliphatic azo compounds (-C-N=N-C-);
  - (b) organic azides  $(-C-N_3)$ ;
  - (c) diazonium salts  $(-CN_2^+Z^-)$ ;

Mixtures of oxidizing substances meeting the criteria of Class 5.1 which contain 5.0% or more of combustible organic substances, which do not meet the criteria mentioned in 2.2.4.1.5.1 (a), (c), (d) or (e) above, shall be subject to the self-reactive substance classification procedure.

The heat of decomposition may be determined using any internationally recognised method such as differential scanning calorimetry and adiabatic calorimetry.

- (d) N-nitroso compounds (-N-N=O); and
- (e) aromatic sulphonylhydrazides (–SO<sub>2</sub>–NH–NH<sub>2</sub>).

This list is not exhaustive and substances with other reactive groups and some mixtures of substances may have similar properties.

- 2.2.4.1.5.5 Self-reactive substances are classified into seven types according to the degree of danger they present. The types of self-reactive substance range from type A, which is prohibited goods, to type G, which is not subject to the provisions for self-reactive substances of Class 4.1. The classification of types B to F is directly related to the maximum quantity allowed in one packaging.
- 2.2.4.1.5.6 Permitted self-reactive substances are listed in 2.2.4.5. For each permitted substance listed, the appropriate generic entry of the DG List (UN 3221 to UN 3240) is assigned, and appropriate subsidiary risks and remarks are given. <sup>13</sup> In 2.2.4.5, the permitted substances are classified as technically pure substances (except where the concentration of less than 100% is specified).
- 2.2.4.1.5.7 For other concentrations, the substances may be classified differently. Classification of these self-reactive substances shall be made by the competent authority of the country of origin on the basis of a test report. The applicable classification procedures, test methods and criteria, and an example of a suitable test report, are given in the United Nations Manual of Tests and Criteria, Part II. The statement of approval shall contain the classification and other relevant conditions. Such statement of approval and the corresponding test report shall be provided as proof upon request.
- 2.2.4.1.5.8 Activators, such as zinc compounds, may be added to some self-reactive substances to change their reactivity. Depending on both the type and the concentration of the activator, this may result in a decrease in thermal stability and a change in explosive properties. If the thermal stability or explosive properties of self-reactive substances are

<sup>&</sup>lt;sup>13</sup> Generic entries specify self-reactive substance type (B to F); physical state (liquid or solid); and temperature control, when required.

altered by adding activators, the new formulation shall be assessed in accordance with this classification procedure.

- 2.2.4.1.5.9 Samples of self-reactive substances or formulations of self-reactive substances not listed in 2.2.4.5, for which a complete set of test results is not available and which is required for further testing or evaluation, may be assigned to one of the appropriate entries for self-reactive substances type C provided the following conditions are met:
  - (a) the available data indicate that the sample would be no more dangerous than self-reactive substances type B;
  - (b) the sample is appropriately packaged and the quantity is limited to 10 kg; and
  - (c) the available data indicate that the control temperature, if any, is sufficiently low to prevent any dangerous decomposition and sufficiently high to prevent any dangerous phase separation.
- 2.2.4.1.5.10 A self-reactive substance is regarded as possessing explosive properties when, in laboratory testing, the formulation is liable to detonate, to deflagrate rapidly or to show a violent effect when heated under confinement. These properties shall be determined experimentally.<sup>14</sup>
- 2.2.4.1.5.11 Self-reactive substances are subject to temperature control if their SADT is less than or equal to 55°C. Test methods for determining the SADT are given in the Manual of Tests and Criteria, Part II, Chapter 28. For currently assigned self-reactive substances, the control and emergency temperatures are shown in 2.2.4.5. Self-reactive substances requiring temperature control shall refer to 7.3.7.2 in IMDG Code or 7.1.5.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- 2.2.4.1.5.12 Self-reactive substances may be desensitized through the use of a diluent. If a diluent is used, the self-reactive substance shall be tested with the diluent present in the concentration and form used.

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Suitable test methods with pertinent evaluation criteria are given in the United Nations Manual of Tests and Criteria, Part II.

- 2.2.4.1.5.13 Diluents which may allow a self-reactive substance to concentrate to a dangerous extent in the event of leakage from a package shall not be used.
- 2.2.4.1.5.14 The diluent shall be compatible with the self-reactive substance. In this regard, compatible diluents are those solids or liquids which have no detrimental influence on the thermal stability and hazard type of the self-reactive substance.
- 2.2.4.1.5.15 Liquid diluents in liquid formulations requiring temperature control shall have a boiling point of at least 60°C and a flashpoint not less than 5°C. The boiling point of the liquid shall be at least 50°C higher than the control temperature of the self-reactive substance.
- 2.2.4.1.6 Solid desensitized explosives under Class 4.1
- Solid desensitized explosives are explosive substances which are 2.2.4.1.6.1 wetted with water or alcohols or are diluted with other substances to form a homogeneous solid mixture to suppress their explosive properties. Suitable and compatible solvent, such as alcohol, may have to be added to lower the freezing point of the liquid. Some of these substances, when in a dry state, are classified as explosives. Where reference is made to a substance which is wetted with water, or some other liquid, it shall be assigned as a Class 4.1 substance only when in the wetted condition specified. Entries in the DG List for solid desensitized explosives are UN 1310, UN 1320, UN 1321, UN 1322, UN 1336, UN 1337, UN 1344, UN 1347, UN 1348, UN 1349, UN 1354, UN 1355, UN 1356, UN 1357, UN 1517, UN 1571, UN 2555, UN 2556, UN 2557, UN 2852, UN 2907, UN 3317, UN 3319, UN 3344, UN 3364, UN 3365, UN 3366, UN 3367, UN 3368, UN 3369, UN 3370, UN 3376, UN 3380 and UN 3474.

#### 2.2.4.1.6.2 Substances that:

- (a) have been provisionally accepted into Class 1 according to Test Series 1 and 2 but exempted from Class 1 by Test Series 6;
- (b) are not self-reactive substances of Class 4.1; and
- (c) are not substances of Class 5;

are also assigned to Class 4.1. UN 2956, UN 3241, UN 3242 and UN 3251 are such entries.

- 2.2.4.1.7 Polymerzing substances and mixture (stabilized) under Class 4.1
- 2.2.4.1.7.1 Polymerizing substances are substances which, without stabilization, are liable to undergo a strong exothermic reaction resulting in the formation of larger molecules or resulting the formation of polymers under conditions normally encountered. Such substances are considered to be polymerizing substances of Class 4.1 when:
  - (a) their self-accelerating polymerization temperature (SAPT) is 75°C or less under the conditions (with or without chemical stabilization) and in appropriate packaging;
  - (b) they exhibit a heat of reaction of more than 300 J/g; and
  - (c) they do not meet any other criteria for inclusion in Classes 1 to 8.
- 2.2.4.1.7.2 A mixture meeting the criteria of a polymerizing substance shall be classified as a polymerizing substance of Class 4.1.
- 2.2.4.1.7.3 Polymerizing substances requiring temperature control shall refer to 7.3.7.2 in IMDG Code or 7.1.5.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- 2.2.4.2 Class 4.2 Substances liable to spontaneous combustion
- 2.2.4.2.1 Class 4.2 DG comprises:
  - (a) Pyrophoric substances, which are substances, including mixtures and solutions (liquid or solid), which, even in small quantities, ignite within 5 minutes of coming into contact with air. These substances are the most liable to spontaneous combustion; and
  - (b) Self-heating substances, which are substances, other than pyrophoric substances, which, in contact with air without energy supply, are liable to self-heating. These substances will ignite only when in large amounts (kilograms) and after long periods of time (hours or days).

- 2.2.4.2.2 Self-heating of a substance is a process where the gradual reaction of that substance with oxygen (in air) generates heat. If the rate of heat production exceeds the rate of heat loss, then the temperature of the substance will rise which, after an induction time, may lead to self-ignition and combustion.
- 2.2.4.2.3 Solids are considered pyrophoric solids which shall be classified in Class 4.2 if, in tests performed in accordance with the test method given in the United Nations Manual of Tests and Criteria, Part III, Section 33 Test N.2, the sample ignites in one of the tests.
- 2.2.4.2.4 Liquids are considered pyrophoric liquids which shall be classified in Class 4.2 if, in tests performed in accordance with the test method given in the United Nations Manual of Tests and Criteria, Part III, Section 33 Test N.3, the liquid ignites in the first part of the test, or if it ignites or chars the filter paper.
- 2.2.4.2.5 A substance shall be classified as a self-heating substance of Class 4.2 if, in tests performed in accordance with the test method given in the United Nations Manual of Tests and Criteria, Part III, Section 33 Test N.4:
  - (a) a positive result is obtained using a 25 mm cube sample at 140°C;
  - (b) a positive result is obtained in a test using a 100 mm cube sample at 140°C and a negative result is obtained in a test using a 100 mm cube sample at 120°C and the substance is in packages with a volume of more than 3 m<sup>3</sup>;
  - (c) a positive result is obtained in a test using a 100 mm cube sample at 140°C and a negative result is obtained in a test using a 100 mm cube sample at 100°C and the substance is in packages with a volume of more than 450 L;
  - (d) a positive result is obtained in a test using a 100 mm cube sample at 140°C and a positive result is obtained using a 100 mm cube sample at 100°C.

2.2.4.2.6 Self-reactive substances, giving also a positive result with this test method shall not be classified in Class 4.2 but in Class 4.1 (see 2.2.4.1.5).

#### 2,2,4,2,7 A substance shall not be classified in Class 4.2 if:

- (a) a negative result is obtained in a test using a 100 mm cube sample at 140°C:
- (b) a positive result is obtained in a test using a 100 mm cube sample at 140°C and a negative result is obtained in a test using a 25 mm cube sample at 140°C, a negative result is obtained in a test using a 100 mm cube sample at 120°C and the substance is in packages with a volume not more than 3 m<sup>3</sup>;
- (c) a positive result is obtained in a test using a 100 mm cube sample at 140°C and a negative result is obtained in a test using a 25 mm cube sample at 140°C, a negative result is obtained in a test using a 100 mm cube sample at 100°C and the substance is in packages with a volume not more than 450 L.
- 2.2.4.3 Class 4.3 Substances which, in contact with water, emit flammable gases
- 2.2.4.3.1 Class 4.3 substances are either liquids or solids which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
- 2.2.4.3.2 Certain substances, in contact with water, may emit flammable gases that can form explosive mixtures with air. Such mixtures are easily ignited by all ordinary sources of ignition and the resulting blast wave and flames may endanger people and the environment.
- 2.2.4.3.3 Substances which, in contact with water, emit flammable gases shall be classified in Class 4.3 if, in tests performed in accordance with the test method given in the United Nations Manual of Tests and Criteria, Part III, Section 33 Test N.5<sup>15</sup>:

ethod shall not be applied to pyrophoric substances.

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<sup>&</sup>lt;sup>15</sup> This test method shall not be applied to pyrophoric substances.

- (a) spontaneous ignition takes place in any step of the test procedure; or
- (b) evolution of flammable gas at a rate greater than 1 litre per kilogram of the substance per hour.

# 2.2.4.3.4 Assignment of packing groups of substances which, in contact with water, emit flammable gases

<b>Packing</b>	<u>Criteria</u>
<u>Group</u>	
I	(i) any substance which reacts vigorously with water
	at ambient temperatures and demonstrates
	generally a tendency for the gas produced to
	ignite spontaneously, or
	(ii) reacts readily with water at ambient temperatures
	such that the rate of evolution of flammable gas $\geq$
	10 litres per kilogram of substances over any one
	minute.
II	(i) any substance which reacts readily with water at
	ambient temperatures such that the maximum rate
	of evolution of flammable gas ≥ 20 litres per
	kilogram of substances per hour, and
	(ii) does not meet the criteria for packing group I.
III	(i) any substance which reacts slowly with water at
	ambient temperatures such that the maximum rate
	of evolution of flammable gas >1 litre per
	kilogram of substances per hour, and
	(ii) does not meet the criteria for packing group I or
	II.

## 2.2.4.4 Organometallic Substances

2.2.4.4.1 Depending on their properties, organometallic substances can be classified in Class 4.2 or Class 4.3 (UN 3391 to UN 3400) with additional subsidiary hazards. The required tests methods (N1 to N5) can be found in the Manual of Tests and Criteria, Part III, Section 33.

## 2.2.4.5 List of currently assigned self-reactive substances

**Note 1:** The classification given in this table is based on the technically pure substance (except where a concentration of less than 100% is specified). For other concentrations, the substances may be classified differently following the procedures in 2.2.4.1.5.10 to 2.2.4.1.5.11.

Note 2: In the column "Packing Method", codes "OP1" to "OP8" refer to packing methods in basic packing instruction BP520.

SELF-REACTIVE SUBSTANCE	Concentration (%)	Packing method (BP520)	Control temperature (°C)	Emergency temperature (°C)	UN	Remarks
ACETONE-PYROGALLOL COPOLYMER 2- DIAZO- 1-NAPHTHOL-5-SULPHONATE	100	OP8			3228	
AZODICARBONAMIDE FORMULATION TYPE B, TEMPERATURE CONTROLLED	< 100	OP5			3232	(1)
AZODICARBONAMIDE FORMULATION TYPE C	< 100	OP6			3224	(3)
AZODICARBONAMIDE FORMULATION TYPE C, TEMPERATURE CONTROLLED	< 100	OP6			3234	(4)
AZODICARBONAMIDE FORMULATION TYPE D	< 100	OP7			3226	(5)
AZODICARBONAMIDE FORMULATION TYPE D, TEMPERATURE CONTROLLED	< 100	OP7			3236	(6)
2,2' -AZODI(2,4-DIMETHYL-4- METHOXYVALERONITRILE)	100	OP7	-5	+5	3236	
2,2' -AZODI(2,4-DIMETHYLVALERONITRILE)	100	OP7	+10	+15	3236	
2,2' -AZODI(ETHYL-2-METHYLPROPIONATE)	100	OP7	+20	+25	3235	
1,1' -AZODI(HEXAHYDROBENZONITRILE)	100	OP7			3226	

SELF-REACTIVE SUBSTANCE	Concentration (%)	Packing method (BP520)	Control temperature (°C)	Emergency temperature (°C)	UN	Remarks
2,2'-AZODI(ISOBUTYRONITRILE)	100	OP6	+40	+45	3234	
2,2'-AZODI(ISOBUTYRONITRILE) as a water-based paste	≤ 50	OP6			3224	
2,2'-AZODI(2-METHYLBUTYRONITRILE)	100	OP7	+35	+40	3236	
BENZENE-1,3-DISULPHONYL HYDRAZIDE, as a paste	52	OP7			3226	
BENZENESULPHONYL HYDRAZIDE	100	OP7			3226	
4-(BENZYL(ETHYL)AMINO)-3-ETHOXY- BENZENEDIAZONIUM ZINC CHLORIDE	100	OP7			3226	
4-(BENZYL(METHYL)AMINO)-3- ETHOXYBENZENEDIAZONIUM ZINC CHLORIDE	100	OP7	+40	+45	3236	
3-CHLORO-4- DIETHYLAMINOBENZENEDIAZONIUM ZINC CHLORIDE	100	OP7			3226	
2-DIAZO-1-NAPHTHOL-4-SULPHONYL CHLORIDE	100	OP5			3222	
2-DIAZO-1-NAPHTHOL-5-SULPHONYL CHLORIDE	100	OP5			3222	
2-DIAZO-1-NAPHTHOLSULPHONIC ACID ESTER MIXTURE TYPE D	<100	OP7			3226	(9)
2,5-DIBUTOXY-4-(4- MORPHOLINYL)BENZENEDIAZONIUM TETRACHLOROZINCATE (2:1)	100	OP8			3228	
2,5-DIETHOXY-4-MORPHOLINO- BENZENEDIAZONIUM ZINC CHLORIDE	67-100	OP7	+35	+40	3236	
2,5-DIETHOXY-4-MORPHOLINO- BENZENEDIAZONIUM ZINC CHLORIDE	66	OP7	+40	+45	3236	
2,5-DIETHOXY-4-MORPHOLINO- BENZENEDIAZONIUM TETRAFLUOROBORATE	100	OP7	+30	+35	3236	

SELF-REACTIVE SUBSTANCE	Concentration (%)	Packing method (BP520)	Control temperature (°C)	Emergency temperature (°C)	UN	Remarks
2,5-DIETHOXY-4-(4-MORPHOLINYL)- BENZENEDIAZONIUM SULPHATE	100	OP7			3226	
2,5-DIETHOXY-4-(PHENYLSULPHONYL)- BENZENEDIAZONIUM ZINC CHLORIDE	67	OP7	+40	+45	3236	
DIETHYLENEGLYCOL BIS(ALLYLCARBONATE) + DI-ISOPROPYL PEROXYDICARBONATE	≥ 88 + ≤ 12	OP8	-10	0	3237	
2,5-DIMETHOXY-4-(4-METHYLPHENYL- SULPHONYL)BENZENEDIAZONIUM ZINC CHLORIDE	79	OP7	+40	+45	3236	
4-(DIMETHYLAMINO)-BENZENEDIAZONIUM TRICHLOROZINCATE(-1)	100	OP8			3228	
4-DIMETHYLAMINO-6-(2- DIMETHYLAMINOETHOXY)TOLUENE-2- DIAZONIUM ZINC CHLORIDE	100	OP7	+40	+45	3236	
N,N'-DINITROSO-N,N'-DIMETHYL TEREPHTHALAMIDE, as a paste	72	OP6			3224	
<i>N,N'</i> -DINITROSOPENTAMETHYLENE- TETRAMINE	82	OP6			3224	(7)
DIPHENYLOXIDE-4,4'-DISULPHONYL HYDRAZIDE	100	OP7			3226	
4-DIPROPYLAMINOBENZENE- DIAZONIUM ZINC CHLORIDE	100	OP7			3226	
2-( <i>N</i> , <i>N</i> -ETHOXYCARBONYL- PHENYLAMINO)-3- METHOXY-4-( <i>N</i> -METHYL- <i>N</i> - CYCLOHEXYLAMINO)BENZENE-DIAZONIM ZINC CHLORIDE	63-92	OP7	+40	+45	3236	
2-(N,N-ETHOXYCARBONYL- PHENYLAMINO)-3- METHOXY-4-(N-METHYL-N- CYCLOHEXYLAMINO)BENZENE-DIAZONIUM ZINC CHLORIDE	62	OP7	+35	+40	3236	

SELF-REACTIVE SUBSTANCE	Concentration (%)	Packing method (BP520)	Control temperature (°C)	Emergency temperature (°C)	UN	Remarks
<i>N</i> -FORMYL-2-(NITROMETHYLENE)-1,3- PERHYDROTHIAZINE	100	OP7	+45	+50	3236	
2-(2-HYDROXYETHOXY)-1- (PYRROLIDIN-1-YL)BENZENE-4- DIAZONIUM ZINC CHLORIDE	100	OP7	+45	+50	3236	
3-(2-HYDROXYETHOXY)-4- (PYRROLIDIN-1-YL)BENZENE-DIAZONIUM ZINC CHLORIDE	100	OP7	+40	+45	3236	
(7-METHOXY-5-METHYL-BENZOTHIOPHEN-2-YL) BORNIC ACID	88-100	OP7			3230	(11)
2-( <i>N</i> , <i>N</i> -METHYLAMINOETHYL-CARBONYL)-4- (3,4-DIMETHYL-PHENYLSULPHONYL)BENZENE- DIAZONIUM HYDROGEN SULPHATE	96	OP7	+45	+50	3236	
4-METHYLBENZENESULPHONYL- HYDRAZIDE	100	OP7			3226	
3-METHYL-4-(PYRROLIDIN-1-YL) BENZENEDIAZONIUM TETRAFLUOROBORATE	95	OP6	+45	+50	3234	
4-NITROSOPHENOL	100	OP7	+35	+40	3236	
PHOSPHOROTHIOIC ACID, <i>O</i> - [(CYANOPHENYLMETHYLENE)- AZANYL]- <i>O</i> , <i>O</i> - DIETHYL ESTER	82-91 (Z isomer)	OP8			3227	(10)
SELF-REACTIVE LIQUID, SAMPLE		OP2			3223	(8)
SELF-REACTIVE LIQUID, SAMPLE, TEMPERATURE CONTROLLED		OP2			3233	(8)
SELF-REACTIVE SOLID, SAMPLE		OP2			3224	(8)
SELF-REACTIVE SOLID, SAMPLE, TEMPERATURE CONTROLLED		OP2			3234	(8)
SODIUM 2-DIAZO-1-NAPHTHOL-4-SULPHONATE	100	OP7			3226	
SODIUM 2-DIAZO-1-NAPHTHOL-5-SULPHONATE	100	OP7			3226	
TETRAMINEPALLADIUM(II) NITRATE	100	OP6	+30	+35	3234	

#### **Remarks:**

- (1) Azodicarbonamide formulations which fulfill the criteria of 20.4.2(b) of the Manual of Tests and Criteria. The control and emergency temperatures depend on their SADT determined by the Manual of Tests and Criteria, Part II, Section 20 and Section 28.4 and if required, it shall refer to the control requirements in 7.3.7.2 in IMDG Code or 7.1.5.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- (2) (reserved)
- (3) Azodicarbonamide formulations which fulfil the criteria of 20.4.2(c) of the Manual of Tests and Criteria.
- (4) Azodicarbonamide formulations which fulfil the criteria of 20.4.2(c) of the Manual of Tests and Criteria. The control and emergency temperatures depend on their SADT determined by the Manual of Tests and Criteria, Part II, Section 20 and Section 28.4 and if required, it shall refer to the control requirements in 7.3.7.2 in IMDG Code or 7.1.5.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- (5) Azodicarbonamide formulations which fulfil the criteria of 20.4.2(d) of the Manual of Tests and Criteria.
- (6) Azodicarbonamide formulations which fulfil the criteria of 20.4.2(d) of the Manual of Tests and Criteria. The control and emergency temperatures depend on their SADT determined by the Manual of Tests and Criteria, Part II, Section 20 and Section 28.4 and if required, it shall refer to the control requirements in 7.3.7.2 in IMDG Code or 7.1.5.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- (7) With compatible diluent having a boiling point of not less than 150°C.
- (8) See 2.2.4.1.5.9.
- (9) This entry applies to mixtures of esters of 2-diazo-1-naphthol-4-sulphonic acid and 2-diazo-1-naphthol-5-sulphonic acid meeting the criteria of 20.4.2(d) of the Manual of Tests and Criteria.
- (10) This entry applies to the technical mixture in n-butanol within the specified concentration limits of the (Z) isomer.
- (11) The technical compound with the specified concentration limits may contain up to 12% water and up to 1% organic impurities.

- 2.2.5 Class 5 Oxidizing Substances and Organic Peroxides
- 2.2.5.1 Scope
- 2.2.5.1.1 Class 5 substances include oxidizing substances (Class 5.1) and organic peroxides (Class 5.2). Oxidizing substances are themselves not necessarily combustible. However, they may generally yield oxygen to support combustion of other materials. Organic peroxides are substances containing the bivalent –O–O– structure and may be considered derivatives of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals. Organic peroxides are thermally unstable substances which may undergo exothermic self-accelerating decomposition.
- 2.2.5.2 Oxidizing substances under Class 5.1
- 2.2.5.2.1 Classification of Class 5.1 oxidizing substances
- 2.2.5.2.1.1 Class 5.1 substances with specific UN numbers shall be classified as stated in the DG List, including the packing groups, subsidiary hazards etc. However, for other substances which are not specified in the DG List but have properties possible to be classified as Class 5.1 DG, the corresponding test methods and criteria including advice on application of the tests are given in the United Nations Manual of Tests and Criteria for the classification. For solid substances, tests are performed to measure the potential for the substance to increase the burning rate or burning intensity of a combustible substance when the two are thoroughly mixed. Classification is based on the test results whether the mixture of substance and cellulose ignites and burns and the mean burning time (for the test O.1) or burning rate (for the test O.3) comparing with those of the reference mixtures.
- 2.2.5.2.1.2 A solid substance is classified in Class 5.1 if the 4:1 or 1:1 sample-to-cellulose ratio (by mass) tested ignites and burns, and exhibits a mean burning time equal to or less than the mean burning time of a 3:7

<sup>&</sup>lt;sup>16</sup> The procedure is given in the United Nations Manual of Tests and Criteria, Part III, section 34.4.1 (test O.1) or alternatively in the section 34.4.3 (test O.3). Tests are conducted on the substance to be evaluated mixed with dry fibrous cellulose in mixing ratios of 1:1 and 4:1, by mass, of sample to cellulose, and compare with the burning characteristics of the mixtures.

mixture (by mass) of potassium bromate and cellulose in the test O.1, or a mean burning rate equal to or greater than the mean burning rate of a 1:2 mixture (by mass) of calcium peroxide and cellulose in the test O.3.

- 2.2.5.2.1.3 For liquid substances, a test is performed to determine the potential for a liquid substance to increase the burning rate or burning intensity of a combustible substance or for spontaneous ignition to occur when the two are thoroughly mixed.<sup>17</sup> Classification is based on test results whether the mixture of substance and cellulose spontaneously ignites, and the mean time taken for the pressure to rise from 690 kPa to 2070 kPa gauge (test O.2) comparing with those of the reference substances.
- 2.2.5.2.1.4 A liquid substance is classified in Class 5.1 if the 1:1 mixture, by mass, of substance and cellulose tested exhibits a mean pressure rise time less than or equal to the mean pressure rise time of a 1:1 mixture, by mass, of 65% aqueous nitric acid and cellulose.
- 2.2.5.2.2 Assignment of packing groups for Class 5.1 DG (oxidizing substances)
- 2.2.5.2.2.1 Solid oxidizing substances are assigned to a packing group according to the criteria based on the test results of the methods in the United Nations Manual of Tests and Criteria, Part III, Section 34 (test O.1) or alternatively (test O.3).
- 2.2.5.2.2.2 Liquid oxidizing substances are assigned to a packing group according to the criteria based on the test results of the method in the United Nations Manual of Tests and Criteria, Part III, Section 34 (test O.2).
- 2.2.5.3 Organic peroxides under Class 5.2
- 2.2.5.3.1 Organic peroxides are liable to exothermic decomposition at normal or elevated temperatures. The decomposition can be initiated by heat, contact with impurities, friction or impact. The rate of decomposition increases with temperature and varies with the organic peroxide

The procedure is given in the United Nations Manual of Tests and Criteria, Part III, 34.4.2 (test O.2). It measures the pressure rise time during combustion. Whether a liquid is an oxidizing substance of Class 5.1 and, if so, whether packing group I, II or III shall be assigned, is decided on the basis of the test result (see also Precedence of hazard characteristics in 2.1.2).

formulation. For certain organic peroxides the temperature shall be controlled. Some organic peroxides may decompose explosively, particularly if confined. This characteristic may be modified by the addition of diluents or by the use of appropriate packagings. Many organic peroxides burn vigorously.

## 2.2.5.3.2 Classification of organic peroxides

- 2.2.5.3.2.1 Any organic peroxide shall be considered for classification in Class 5.2, unless the organic peroxide formulation contains:
  - (a) not more than 1.0% available oxygen from the organic peroxides when containing not more than 1.0% hydrogen peroxide; or
  - (b) not more than 0.5% available oxygen from the organic peroxides when containing more than 1.0% but not more than 7.0% hydrogen peroxide.

The available oxygen content (%) of an organic peroxide formulation is given by the formula:

$$16 \times \sum (n_i \times c_i / m_i)$$

where:

 $n_i$  = number of peroxygen groups per molecule of organic peroxide i

 $c_i$  = concentration (mass %) of organic peroxide i

 $m_i$  = molecular mass of organic peroxide i

- 2.2.5.3.2.2 Organic peroxides are classified into seven types according to the degree of danger they present. The types of organic peroxide range from type A, which is prohibited goods, to type G, which is not subject to the provisions for organic peroxides of Class 5.2. The classification of types B to F is directly related to the maximum quantity allowed in one packaging.
- 2.2.5.3.2.3 Organic peroxides permitted in packagings are listed in 2.2.5.4 of the

Code. For each permitted substance listed, the generic entry of the DG List (UN 3101 to UN 3120) is assigned, appropriate subsidiary hazards and remarks providing relevant information are given.<sup>18</sup>

2.2.5.3.2.4 Mixtures of the listed formulations may be classified as the same type of organic peroxide as that of the most dangerous component under the conditions given for this type. However, as two stable components can form a thermally less stable mixture, the SADT of the mixture shall be determined <sup>19</sup> and, if necessary, temperature control applied as required. For currently assigned organic peroxides, control and emergency temperatures are shown in the list in 2.2.5.4. Peroxide substances requiring temperature control shall refer to 7.3.7.2 in IMDG Code or 7.1.5.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.

## 2.2.5.3.2.4.1 The following organic peroxides shall be subject to temperature control:

- (a) organic peroxides types B and C with an SADT  $\leq 50^{\circ}$ C;
- (b) organic peroxides type D showing a medium effect when heated under confinement<sup>20</sup> with an SADT ≤ 50°C or showing a low or no effect when heated under confinement with an SADT ≤ 45°C; and
- (c) organic peroxides types E and F with an SADT  $\leq 45$  °C.
- 2.2.5.3.2.4.2 The actual temperature during handling may be lower than the control temperature but shall be selected so as to avoid dangerous separation of phases.
- 2.2.5.3.2.5 Samples of new organic peroxides or new formulations of currently assigned organic peroxides for which complete test data are not available and which are needed for further testing or evaluation may be assigned to one of the appropriate entries for ORGANIC PEROXIDE TYPE C provided the following conditions are met:

<sup>&</sup>lt;sup>18</sup> Generic entries specify organic peroxide type (B to F); physical state (liquid or solid); and temperature control, when required.

Test methods for determining the SADT are given in the United Nations Manual of Tests and Criteria, Part II, chapter 28. The test selected shall be conducted in a manner which is representative, both in size and material, of the package to be transported.

Provisions for the determination of the effects of heating under confinement are given in the Manual of Tests and Criteria, Part II, Section 20 and Sub-section 28.4.

- (a) the available data indicate that the sample would be no more dangerous than ORGANIC PEROXIDE TYPE B;
- (b) the sample is appropriately packaged; and
- (c) the available data indicate that the control temperature, if any, is sufficiently low to prevent any dangerous decomposition and sufficiently high to prevent any dangerous phase separation.

## 2.2.5.3.2.6 Principles for classification of organic peroxides

2.2.5.3.2.6.1 Any organic peroxide formulation shall be regarded as possessing explosive properties when, in laboratory testing, the formulation is liable to detonate, to deflagrate rapidly or to show a violent effect when heated under confinement. These decisive properties shall be determined experimentally<sup>21</sup> by the competent authority of the country of origin on the basis of a test report. The applicable classification procedures, test methods and criteria, and an example of a suitable test report, are given in the United Nations Manual of Tests and Criteria, Part II. The statement of approval shall contain the classification and other relevant conditions. Such statement of approval and the corresponding test report shall be provided as proof upon request.

## 2.2.5.3.2.7 Desensitization of organic peroxides

2.2.5.3.2.7.1 For safety reason, organic peroxides are in many cases desensitized by organic liquids or solids, inorganic solids or water. Where a percentage of a substance is stipulated, this refers to the percentage by mass, rounded to the nearest whole number. In general, desensitization shall be such that, in case of spillage, the organic peroxide will not concentrate to a dangerous extent.

2.2.5.3.2.7.2 Unless otherwise stated for the individual organic peroxide formulation, the following definition(s) shall apply to diluents used for desensitization:

(a) diluents type A are organic liquids which are compatible with the

Suitable test methods with pertinent evaluation criteria are given in the United Nations Manual of Tests and Criteria, Part II.

- organic peroxide and which have a boiling point of not less than 150°C. Type A diluents may be used for desensitizing all organic peroxides.
- (b) diluents type B are organic liquids which are compatible with the organic peroxide and which have a boiling point of less than 150°C but not less than 60°C and a flash-point of not less than 5°C. Type B diluents may be used for desensitization of all organic peroxides provided that the boiling point of the liquid is at least 60°C higher than the SADT in a 50 kg package.
- 2.2.5.3.2.7.3 Diluents, other than type A or type B, may be added to organic peroxide formulations as listed in 2.2.5.4 provided that they are compatible. However, replacement of all or part of a type A or type B diluent by another diluent with differing properties requires that the organic peroxide formulation be re-assessed in accordance with the normal acceptance procedure for Class 5.2.
- 2.2.5.3.2.7.4 Water may only be used for the desensitization of organic peroxides which are listed in 2.2.5.4 or in the competent authority decision according to 2.2.5.3.2.6.1 as being "with water" or "as a stable dispersion in water".
- 2.2.5.3.2.7.5 Organic and inorganic solids may be used for desensitization of organic peroxides provided that they are compatible.
- 2.2.5.3.2.7.6 Compatible liquids and solids are those which have no detrimental influence on the thermal stability and hazard type of the organic peroxide formulation.

## 2.2.5.4 List of currently assigned organic peroxides

Note 1: In the column "Packing Method", codes "OP1" to "OP8" refer to packing methods in basic packing instruction BP520.

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
ACETYL ACETONE PEROXIDE	≤ 42	≥ 48			≥8	OP7			3105	(2)
ACETYL ACETONE PEROXIDE	≤ 35	≥ 57			≥8	OP8			3107	(32)
ACETYL ACETONE PEROXIDE	≤ 32 as a paste					OP7			3106	(20)
ACETYL CYCLOHEXANESULPHONYL PEROXIDE	≤ 82				≥ 12	OP4	-10	0	3112	
ACETYL CYCLOHEXANESULPHONYL PEROXIDE	≤ 32		≥ 68			OP7	-10	0	3115	
tert-AMYL HYDROPEROXIDE	≤ 88	≥ 6			≥ 6	OP8			3107	
tert-AMYL PEROXYACETATE	≤ 62	≥ 38				OP7			3105	
tert-AMYL PEROXYBENZOATE	≤ 100					OP5			3103	
tert-AMYL PEROXY-2-ETHYLHEXANOATE	≤ 100					OP7	+20	+25	3115	
tert-AMYL PEROXY-2-ETHYLHEXYL CARBONATE	≤ 100					OP7			3105	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
tert-AMYL PEROXY ISOPROPYL CARBONATE	≤ 77	≥ 23				OP5			3103	
tert-AMYL PEROXYNEODECANOATE	≤ 77		≥ 23			OP7	0	+10	3115	
tert-AMYL PEROXYNEODECANOATE	≤ 47	≥ 53				OP8	0	+10	3119	
tert-AMYL PEROXYPIVALATE	≤ 77		≥ 23			OP5	+10	+5	3113	
tert-AMYL PEROXY-3,5,5- TRIMETHYLHEXANOATE	≤ 100					OP7			3105	
tert-BUTYL CUMYL PEROXIDE	> 42 - 100					OP8			3109	
tert-BUTYL CUMYL PEROXIDE	≤ 52			≥ 48		OP8			3108	
<i>n</i> -BUTYL 4,4-DI-( <i>tert</i> -BUTYLPEROXY)VALERATE	> 52 – 100					OP5			3103	
<i>n</i> -BUTYL 4,4-DI-( <i>tert</i> -BUTYLPEROXY)VALERATE	≤ 52			≥ 48		OP8			3108	
tert-BUTYL HYDROPEROXIDE	>79 – 90				≥ 10	OP5			3103	(13)
tert-BUTYL HYDROPEROXIDE	≤ 80	≥ 20				OP7			3105	(4) (13)
tert-BUTYL HYDROPEROXIDE	≤ 79				> 14	OP8			3107	(13) (23)

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
tert-BUTYL HYDROPEROXIDE	≤ 72				≥ 28	OP8			3109	(13)
tert-BUTYL HYDROPEROXIDE + DI-tert- BUTYLPEROXIDE	< 82 +> 9				≥ 7	OP5			3103	(13)
tert-BUTYL MONOPEROXYMALEATE	> 52 - 100					OP5			3102	
tert-BUTYL MONOPEROXYMALEATE	≤ 52	≥ 48				OP6			3103	
tert-BUTYL MONOPEROXYMALEATE	≤ 52			≥ 48		OP8			3108	
tert-BUTYL MONOPEROXYMALEATE	≤ 52 as a paste					OP8			3108	
tert-BUTYL PEROXYACETATE	> 52 – 77	≥ 23				OP5			3101	
tert-BUTYL PEROXYACETATE	> 32 - 52	≥ 48				OP6			3103	
tert-BUTYL PEROXYACETATE	≤ 32		≥ 68			OP8			3109	
tert-BUTYL PEROXYBENZOATE	> 77 – 100					OP5			3103	
tert-BUTYL PEROXYBENZOATE	> 52 – 77	≥ 23				OP7			3105	
tert-BUTYL PEROXYBENZOATE	≤ 52			≥ 48		OP7			3106	
tert-BUTYL PEROXYBUTYL FUMARATE	≤ 52	≥ 48				OP7			3105	
tert-BUTYL PEROXYCROTONATE	≤ 77	≥ 23				OP7			3105	
tert-BUTYL PEROXYDIETHYLACETATE	≤ 100					OP5	+20	+25	3113	
tert-BUTYL PEROXY-2-	> 52 – 100					OP6	+20	+25	3113	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
ETHYLHEXANOATE										
tert-BUTYL PEROXY-2- ETHYLHEXANOATE	> 32 - 52		≥ 48			OP8	+30	+35	3117	
tert-BUTYL PEROXY-2- ETHYLHEXANOATE	≤ 52			≥ 48		OP8	+20	+25	3118	
tert-BUTYL PEROXY-2- ETHYLHEXANOATE	≤ 32		≥ 68			OP8	+40	+45	3119	
tert-BUTYL PEROXY-2- ETHYLHEXANOATE + 2,2-DI-(tert- BUTYLPEROXY)BUTANE	≤ 12 + ≤ 14	≥ 14		≥ 60		OP7			3106	
tert-BUTYL PEROXY-2- ETHYLHEXANOATE + 2,2-DI-(tert- BUTYLPEROXY)BUTANE	≤ 31 + ≤ 36		≥ 33			OP7	+35	+40	3115	
tert-BUTYL PEROXY-2- ETHYLHEXYLCARBONATE	≤ 100					OP7			3105	
tert-BUTYL PEROXYISOBUTYRATE	> 52 – 77		≥ 23			OP5	+15	+20	3111	
tert-BUTYL PEROXYISOBUTYRATE	≤ 52		≥ 48			OP7	+15	+20	3115	
tert-BUTYL PEROXY	≤ 77	≥ 23				OP5			3103	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
ISOPROPYLCARBONATE										
tert-BUTYL PEROXY ISOPROPYLCARBONATE	≤ 62		≥ 38			OP7			3105	
1-(2-tert-BUTYLPEROXYISOPROPYL)-3- ISOPROPENYLBENZENE	≤ 77	≥ 23				OP7			3105	
1-(2-tert-BUTYLPEROXYISOPROPYL)-3- ISOPROPENYLBENZENE	≤ 42			≥ 58		OP8			3108	
tert-BUTYL PEROXY-2- METHYLBENZOATE	≤ 100					OP5			3103	
tert-BUTYL PEROXYNEODECANOATE	> 77 – 100					OP7	-5	+5	3115	
tert-BUTYL PEROXYNEODECANOATE	≤ 77		≥ 23			OP7	0	+10	3115	
tert-BUTYL PEROXYNEODECANOATE	≤ 52 as a stable dispersion in water					OP8	0	+10	3119	
tert-BUTYL PEROXYNEODECANOATE	≤ 42 as a stable dispersion in water (frozen)					OP8	0	+10	3118	
tert-BUTYL PEROXYNEODECANOATE	≤ 32	≥ 68				OP8	0	+10	3119	
tert-BUTYL PEROXYNEOHEPTANOATE	≤ 77	≥ 23				OP7	0	+10	3115	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
tert-BUTYL PEROXYNEOHEPTANOATE	≤ 42 as a stable dispersion in water					OP8	0	+10	3117	
tert-BUTYL PEROXYPIVALATE	> 67 – 77	≥ 23				OP5	0	+10	3113	
tert-BUTYL PEROXYPIVALATE	> 27 – 67		≥ 33			OP7	0	+10	3115	
tert-BUTYL PEROXYPIVALATE	≤ 27		≥ 73			OP8	+30	+35	3119	
tert-BUTYL PEROXY STEARYLCARBONATE	≤ 100					OP7			3106	
tert-BUTYL PEROXY-3,5,5- TRIMETHYLHEXANOATE	> 37 – 100					OP7			3105	
tert-BUTYL PEROXY-3,5,5- TRIMETHYLHEXANOATE	≤ 42			≥ 58		OP7			3106	
tert-BUTYL PEROXY-3,5,5- TRIMETHYLHEXANOATE	≤ 37		≥ 63			OP8			3109	
3-CHLOROPEROXYBENZOIC ACID	> 57 – 86			≥ 14		OP1			3102	
3-CHLOROPEROXYBENZOIC ACID	≤ 57			≥ 3	≥ 40	OP7			3106	
3-CHLOROPEROXYBENZOIC ACID	≤ 77			≥6	≥ 17	OP7			3106	
CUMYL HYDROPEROXIDE	> 90 - 98	≤ 10				OP8			3107	(13)

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
CUMYL HYDROPEROXIDE	≤ 90	≥ 10				OP8			3109	(13) (18)
CUMYL PEROXYNEODECANOATE	≤ 87	≥ 13				OP7	- 10	0	3115	
CUMYL PEROXYNEODECANOATE	≤ 77		≥ 23			OP7	-10	0	3115	
CUMYL PEROXYNEODECANOATE	≤ 52 as a stable dispersion in water					OP8	-10	0	3119	
CUMYL PEROXYNEOHEPTANOATE	≤ 77	≥ 23				OP7	-10	0	3115	
CUMYL PEROXYPIVALATE	≤ 77		≥ 23			OP7	-5	+5	3115	
CYCLOHEXANONE PEROXIDE(S)	≤91				≥ 9	OP6			3104	(13)
CYCLOHEXANONE PEROXIDE(S)	≤ 72	≥ 28				OP7			3105	(5)
CYCLOHEXANONE PEROXIDE(S)	≤ 72 as a paste					OP7			3106	(5) (20)
CYCLOHEXANONE PEROXIDE(S)	≤ 32			≥ 68					Exempt	(29)
([3R-(3R,5aS,6S,8aS,9R,10R,12S,12aR**)]- DECAHYDRO-10-METHOXY-3,6,9- TRIMETHYL-3,12-EPOXY-12H- PYRANO[4,3-j]-1,2-BENZODIOXEPIN)	≤ 100					OP7			3106	
DIACETONE ALCOHOL PEROXIDES	≤ 57		≥ 26		≥ 8	OP7	+40	+45	3115	(6)
DIACETYL PEROXIDE	≤ 27		≥ 73			OP7	+20	+25	3115	(7) (13)

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
DI-tert-AMYL PEROXIDE	≤ 100					OP8			3107	
2,2-DI-(tert-AMYLPEROXY)BUTANE	≤ 57	≥ 43				OP7			3105	
1,1-DI-( <i>tert</i> - AMYLPEROXY)CYCLOHEXANE	≤ 82	≥ 18				OP6			3103	
DIBENZOYL PEROXIDE	> 52 - 100			≤ 48		OP2			3102	
DIBENZOYL PEROXIDE	> 77 – 94				≥ 6	OP4			3102	
DIBENZOYL PEROXIDE	≤ 77				≥ 23	OP6			3104	
DIBENZOYL PEROXIDE	≤ 62			≥ 28	≥ 10	OP7			3106	
DIBENZOYL PEROXIDE	> 52 – 62 as a paste					OP7			3106	(20)
DIBENZOYL PEROXIDE	> 35 - 52			≥ 48		OP7			3106	
DIBENZOYL PEROXIDE	> 36 – 42	≥ 18			≤ 40	OP8			3107	
DIBENZOYL PEROXIDE	≤ 56.5 as a paste				≥ 15	OP8			3108	
DIBENZOYL PEROXIDE	≤ 52 as a paste					OP8			3108	(20)
DIBENZOYL PEROXIDE	≤ 42 as a stable dispersion in water					OP8			3109	
DIBENZOYL PEROXIDE	≤ 35			≥ 65					Exempt	(29)
DI-(4-tert-BUTYLCYCLOHEXYL)	≤ 100					OP6	+30	+35	3114	

ORGANIC PEROXIDE  PEROXYDICARBONATE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
TEROATDICARBONATE										
DI-(4- <i>tert</i> -BUTYLCYCLOHEXYL) PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+30	+35	3119	
DI-(4-tert-BUTYLCYCLOHEXYL) PEROXYDICARBONATE	≤ 42 as a paste					OP8	+35	+40	3118	
DI-tert-BUTYL PEROXIDE	> 52 – 100					OP8			3107	
DI-tert-BUTYL PEROXIDE	≤ 52		≥ 48			OP8			3109	(25)
DI-tert-BUTYL PEROXYAZELATE	≤ 52	≥ 48				OP7			3105	
2,2-DI-(tert-BUTYLPEROXY)BUTANE	≤ 52	≥ 48				OP6			3103	
1,6-DI-( <i>tert</i> -BUTYLPEROXYCARBONYLOXY) HEXANE	≤ 72	≥ 28				OP5			3103	
1,1-DI-( <i>tert</i> -BUTYLPEROXY)CYCLOHEXANE	> 80 - 100					OP5			3101	
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	≤ 72		≥ 28			OP5			3103	(30)

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	> 52 - 80	≥ 20				OP5			3103	
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	> 42 – 52	≥ 48				OP7			3105	
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	≤ 42	≥ 13		≥ 45		OP7			3106	
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	≤ 42	≥ 58				OP8			3109	
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	≤ 27	≥ 25				OP8			3107	(21)
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	≤ 13	≥ 13	≥ 74			OP8			3109	
1,1-DI-(tert- BUTYLPEROXY)CYCLOHEXANE + tert-BUTYL PEROXY-2- ETHYLHEXANOATE	≤ 43 + ≤ 16	≥ 41				OP7			3105	
DI-n-BUTYL PEROXYDICARBONATE	> 27 – 52		≥ 48			OP7	-15	-5	3115	
DI-n-BUTYL PEROXYDICARBONATE	≤ 42 as a stable					OP8	-15	-5	3118	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
	dispersion in water (frozen)									
1,1-DI-( <i>tert</i> -BUTYLPEROXY)CYCLOHEXANE	≤ 42 as a stable dispersion in water (frozen)					OP8	-15	-5	3118	
1,1-DI-( <i>tert</i> - BUTYLPEROXY)CYCLOHEXANE	≤ 27		≥ 73			OP8	-10	0	3117	
DI-sec-BUTYL PEROXYDICARBONATE	> 52 – 100					OP4	-20	-10	3113	
DI-sec-BUTYL PEROXYDICARBONATE	≤ 52		≥ 48			OP7	-15	-5	3115	
DI-( <i>tert</i> - BUTYLPEROXYISOPROPYL)BENZENE(S)	> 42 – 100			≤ 57		OP7			3106	
DI-( <i>tert</i> - BUTYLPEROXYISOPROPYL)BENZENE(S)	≤ 42			≥ 58					Exempt	(29)
DI-(tert-BUTYLPEROXY)PHTHALATE	> 42 – 52	≥ 48				OP7			3105	
DI-(tert-BUTYLPEROXY)PHTHALATE	≤ 52 as a paste					OP7			3106	(20)
DI-(tert-BUTYLPEROXY)PHTHALATE	≤ 42	≥ 58				OP8			3107	
2,2-DI-( <i>tert</i> -BUTYLPEROXY)PROPANE	≤ 52	≥48				OP7			3105	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
2,2-DI-(tert-BUTYLPEROXY)PROPANE	≤ 42	≥ 13		≥ 45		OP7			3106	
1,1-DI-( <i>tert</i> -BUTYLPEROXY)-3,3,5- TRIMETHYLCYCLOHEXANE	> 90 – 100					OP5			3101	
1,1-DI-( <i>tert</i> -BUTYLPEROXY)-3,3,5- TRIMETHYLCYCLOHEXANE	≤ 90		≥ 10			OP5			3103	(30)
1,1-DI-( <i>tert</i> -BUTYLPEROXY)-3,3,5- TRIMETHYLCYCLOHEXANE	> 57 – 90	≥ 10				OP5			3103	
1,1-DI-( <i>tert</i> -BUTYLPEROXY)-3,3,5- TRIMETHYLCYCLOHEXANE	≤ 77		≥ 23			OP5			3103	
1,1-DI-( <i>tert</i> -BUTYLPEROXY)-3,3,5- TRIMETHYLCYCLOHEXANE	≤ 57			≥ 43		OP8			3110	
1,1-DI-( <i>tert</i> -BUTYLPEROXY)-3,3,5- TRIMETHYLCYCLOHEXANE	≤ 57	≥ 43				OP8			3107	
1,1-DI-( <i>tert</i> -BUTYLPEROXY)-3,3,5- TRIMETHYLCYCLOHEXANE	≤ 32	≥ 26	≥ 42			OP8			3107	
DICETYL PEROXYDICARBONATE	≤ 100					OP8	+30	+35	3120	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
DICETYL PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+30	+35	3119	
DI-4-CHLOROBENZOYL PEROXIDE	≤ 77				≥ 23	OP5			3102	
DI-4-CHLOROBENZOYL PEROXIDE	≤ 52 as a paste					OP7			3106	(20)
DI-4-CHLOROBENZOYL PEROXIDE	≤ 32			≥ 68					Exempt	(29)
DICUMYL PEROXIDE	> 52 - 100					OP8			3110	(12)
DICUMYL PEROXIDE	≤ 52			≥ 48					Exempt	(29)
DICYCLOHEXYL PEROXYDICARBONATE	> 91 – 100					OP3	+10	+15	3112	
DICYCLOHEXYL PEROXYDICARBONATE	≤ 91				≥ 9	OP5	+10	+15	3114	
DICYCLOHEXYL PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+15	+20	3119	
DIDECANOYL PEROXIDE	≤ 100					OP6	+30	+35	3114	
2,2-DI-(4,4-DI-( <i>tert</i> -BUTYLPEROXY)CYCLOHEXYL)-PROPANE	≤ 42			≥ 58		OP7			3106	
2,2-DI-(4,4-DI-( <i>tert</i> -BUTYLPEROXY)CYCLOHEXYL)-	≤ 22		≥ 78			OP8			3107	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
PROPANE										
DI-2,4-DICHLOROBENZOYL PEROXIDE	≤ 77				≥ 23	OP5			3102	
DI-2,4-DICHLOROBENZOYL PEROXIDE	≤ 52 as a paste					OP8	+ 20	+ 25	3118	
DI-2,4-DICHLOROBENZOYL PEROXIDE	≤ 52 as a paste with silicon oil					OP7			3106	
DI-(2-ETHOXYETHYL) PEROXYDICARBONATE	≤ 52		≥ 48			OP7	-10	0	3115	
DI-(2-ETHYLHEXYL) PEROXYDICARBONATE	> 77 – 100					OP5	-20	-10	3113	
DI-(2-ETHYLHEXYL) PEROXYDICARBONATE	≤77		≥ 23			OP7	-15	-5	3115	
DI-(2-ETHYLHEXYL) PEROXYDICARBONATE	≤ 62 as a stable dispersion in water					OP8	-15	-5	3119	
DI-(2-ETHYLHEXYL) PEROXYDICARBONATE	≤ 52 as a stable dispersion in water (frozen)					OP8	-15	-5	3120	
2,2-DIHYDROPEROXYPROPANE	≤ 27			≥ 73		OP5			3102	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
DI-(1-HYDROXYCYCLOHEXYL) PEROXIDE	≤ 100					OP7			3106	
DIISOBUTYRYL PEROXIDE	> 32 - 52		≥ 48			OP5	-20	-10	3111	
DIISOBUTYRYL PEROXIDE	≤ 42 (as a stable dispersion in water)					OP8	-20	-10	3119	
DIISOBUTYRYL PEROXIDE	≤ 32		≥ 68			OP7	-20	-10	3115	
DIISOPROPYLBENZENE DIHYDROPEROXIDE	≤ 82	≥ 5			≥ 5	OP7			3106	(24)
DIISOPROPYL PEROXYDICARBONATE	> 52 - 100					OP2	-15	-5	3112	
DIISOPROPYL PEROXYDICARBONATE	≤ 52		≥ 48			OP7	-20	-10	3115	
DIISOPROPYL PEROXYDICARBONATE	≤ 32	≥ 68				OP7	-15	-5	3115	
DILAUROYL PEROXIDE	≤ 100					OP7			3106	
DILAUROYL PEROXIDE	≤ 42 as a stable dispersion in water					OP8			3109	
DI-(3-METHOXYBUTYL) PEROXYDICARBONATE	≤ 52		≥ 48			OP7	-5	+5	3115	
DI-(2-METHYLBENZOYL) PEROXIDE	≤ 87				≥ 13	OP5	+30	+35	3112	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
DI-(3-METHYLBENZOYL) PEROXIDE + BENZOYL (3- METHYLBENZOYL) PEROXIDE + DIBENZOYL PEROXIDE	≤ 20 + ≤ 18 + ≤ 4		≥ 58			OP7	+35	+40	3115	
DI-(4-METHYLBENZOYL) PEROXIDE	≤ 52 as a paste with silicon oil					OP7			3106	
2,5-DIMETHYL-2,5-DI- (BENZOYLPEROXY)HEXANE	> 82-100					OP5			3102	
2,5-DIMETHYL-2,5-DI- (BENZOYLPEROXY)HEXANE	≤ 82			≥ 18		OP7			3106	
2,5-DIMETHYL-2,5-DI- (BENZOYLPEROXY)HEXANE	≤ 82				≥ 18	OP5			3104	
2,5-DIMETHYL-2,5-DI-( <i>tert</i> -BUTYLPEROXY)HEXANE	> 90 - 100					OP5			3103	
2,5-DIMETHYL-2,5-DI-( <i>tert</i> -BUTYLPEROXY)HEXANE	> 52 – 90	≥ 10				OP7			3105	
2,5-DIMETHYL-2,5-DI-( <i>tert</i> -BUTYLPEROXY)HEXANE	≤ 77			≥ 23		OP8			3108	
2,5-DIMETHYL-2,5-DI-(tert-	≤ 52	≥48				OP8		_	3109	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
BUTYLPEROXY)HEXANE										
2,5-DIMETHYL-2,5-DI-( <i>tert</i> -BUTYLPEROXY)HEXANE	≤ 47 as a paste					OP8			3108	
2,5-DIMETHYL-2,5-DI-( <i>tert</i> -BUTYLPEROXY)HEXYNE-3	> 86 - 100					OP5			3101	
2,5-DIMETHYL-2,5-DI-( <i>tert</i> -BUTYLPEROXY)HEXYNE-3	>52 - 86	≥ 14				OP5			3103	(26)
2,5-DIMETHYL-2,5-DI-( <i>tert</i> -BUTYLPEROXY)HEXYNE-3	≤ 52			≥ 48		OP7			3106	
2,5-DIMETHYL-2,5-DI-(2- ETHYLHEXANOYLPEROXY)HEXANE	≤ 100					OP5	+20	+25	3113	
2,5-DIMETHYL-2,5- DIHYDROPEROXYHEXANE	≤ 82				≥ 18	OP6			3104	
2,5-DIMETHYL-2,5-DI-(3,5,5- TRIMETHYLHEXANOYLPEROXY) HEXANE	≤ 77	≥ 23				OP7			3105	
1,1-DIMETHYL-3-HYDROXYBUTYL PEROXYNEOHEPTANOATE	≤ 52	≥48				OP8	0	+10	3117	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
DIMYRISTYL PEROXYDICARBONATE	≤ 100					OP7	+20	+25	3116	
DIMYRISTYL PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+20	+25	3119	
DI-(2- NEODECANOYLPEROXYISOPROPYL)BEN ZENE	≤ 52	≥ 48				OP7	-10	0	3115	
DI-n-NONANOYL PEROXIDE	≤ 100					OP7	0	+10	3116	
DI-n-OCTANOYL PEROXIDE	≤ 100					OP5	+10	+15	3114	
DI-(2-PHENOXYETHYL) PEROXYDICARBONATE	> 85 – 100					OP5			3102	
DI-(2-PHENOXYETHYL) PEROXYDICARBONATE	≤ 85				≥ 15	OP7			3106	
DIPROPIONYL PEROXIDE	≤ 27		≥ 73			OP8	+15	+20	3117	
DI-n-PROPYL PEROXYDICARBONATE	≤ 100					OP3	-25	-15	3113	
DI-n-PROPYL PEROXYDICARBONATE	≤ 77		≥ 23			OP5	-20	-10	3113	
DISUCCINIC ACID PEROXIDE	> 72 – 100					OP4			3102	(17)
DISUCCINIC ACID PEROXIDE	≤ 72				≥ 28	OP7	+10	+15	3116	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	> 52 - 82	≥ 18				OP7	0	+10	3115	
DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	≤ 52 as a stable dispersion in water					OP8	+10	+15	3119	
DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	> 38 - 52	≥ 48				OP8	+10	+15	3119	
DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	≤ 38	≥ 62				OP8	+20	+25	3119	
ETHYL 3,3-DI-( <i>tert</i> -AMYLPEROXY)BUTYRATE	≤ 67	≥ 33				OP7			3105	
ETHYL 3,3-DI-( <i>tert</i> - BUTYLPEROXY)BUTYRATE	> 77 – 100					OP5			3103	
ETHYL 3,3-DI-( <i>tert</i> - BUTYLPEROXY)BUTYRATE	≤ 77	≥ 23				OP7			3105	
ETHYL 3,3-DI-( <i>tert</i> - BUTYLPEROXY)BUTYRATE	≤ 52			≥ 48		OP7			3106	
1-(2-ETHYLHEXANOYLPEROXY)-1,3-	≤ 52	≥ 45	≥10			OP7	-20	-10	3115	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
DIMETHYLBUTYL PEROXYPIVALATE										
tert-HEXYL PEROXYNEODECANOATE	≤ 71	≥ 29				OP7	0	+10	3115	
tert-HEXYL PEROXYPIVALATE	≤ 72		≥ 28			OP7	+10	+15	3115	
tert-HEXYL PEROXYPIVALATE	≤52 as a stable dispersion in water					OP8	+15	+20	3117	
3-HYDROXY-1,1-DIMETHYLBUTYL PEROXYNEODECANOATE	≤ 77	≥ 23				OP7	-5	+ 5	3115	
3-HYDROXY-1,1-DIMETHYLBUTYL PEROXYNEODECANOATE	≤ 52	≥ 48				OP8	-5	+ 5	3117	
3-HYDROXY-1,1-DIMETHYLBUTYL PEROXYNEODECANOATE	≤ 52 as a stable dispersion in water					OP8	-5	+ 5	3119	
ISOPROPYL sec-BUTYL PEROXYDICARBONATE + DI-sec-BUTYL PEROXYDICARBONATE + DI-ISOPROPYL PEROXYDICARBONATE	$\leq 32$ $+ \leq 15 - 18$ $+ \leq 12 - 15$	≥ 38				OP7	-20	-10	3115	
ISOPROPYL sec-BUTYL PEROXYDICARBONATE + DI-sec-BUTYL PEROXYDICARBONATE	$\leq 52$ $+ \leq 28$ $+ \leq 22$					OP5	-20	-10	3111	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
+ DI-ISOPROPYL PEROXYDICARBONATE										
ISOPROPYLCUMYL HYDROPEROXIDE	≤ 72	≥ 28				OP8			3109	(13)
p-MENTHYL HYDROPEROXIDE	> 72 - 100					OP7			3105	(13)
p-MENTHYL HYDROPEROXIDE	≤ 72	≥ 28				OP8			3109	(27)
METHYLCYCLOHEXANONE PEROXIDE(S)	≤ 67		≥ 33			OP7	+35	+40	3115	
METHYL ETHYL KETONE PEROXIDE(S)	See remark (8)	≥ 48				OP5			3101	(8) (13)
METHYL ETHYL KETONE PEROXIDE(S)	See remark (9)	≥ 55				OP7			3105	(9)
METHYL ETHYL KETONE PEROXIDE(S)	See remark (10)	≥ 60				OP8			3107	(10)
METHYL ISOBUTYL KETONE PEROXIDE(S)	≤ 62	≥ 19				OP7			3105	(22)
METHYL ISOPROPYL KETONE PEROXIDE(S)	See remark (31)	≥ 70				OP8			3109	(31)
ORGANIC PEROXIDE, LIQUID, SAMPLE						OP2			3103	(11)
ORGANIC PEROXIDE, LIQUID, SAMPLE, TEMPERATURE CONTROLLED						OP2			3113	(11)

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
ORGANIC PEROXIDE, SOLID, SAMPLE						OP2			3104	(11)
ORGANIC PEROXIDE, SOLID, SAMPLE, TEMPERATURE CONTROLLED						OP2			3114	(11)
3,3,5,7,7-PENTAMETHYL-1,2,4- TRIOXEPANE	≤ 100					OP8			3107	
PEROXYACETIC ACID, TYPE D, stabilized	≤ 43					OP7			3105	(13) (14) (19)
PEROXYACETIC ACID, TYPE E, stabilized	≤ 43					OP8			3107	(13) (15) (19)
PEROXYACETIC ACID, TYPE F, stabilized	≤ 43					OP8			3109	(13) (16) (19)
PEROXYLAURIC ACID	≤ 100					OP8	+35	+40	3118	
1-PHENYLETHYL HYDROPEROXIDE	≤ 38		≥62			OP8			3109	
PINANYL HYDROPEROXIDE	> 56 - 100					OP7			3105	(13)
PINANYL HYDROPEROXIDE	≤ 56	≥ 44				OP8			3109	
POLYETHER POLY- <i>tert</i> - BUTYLPEROXYCARBONATE	≤ 52		≥ 48			OP8			3107	
1,1,3,3-TETRAMETHYLBUTYL HYDROPEROXIDE	≤ 100					OP7			3105	
1,1,3,3-TETRAMETHYLBUTYL PEROXY-2	≤ 100					OP7	+15	+20	3115	

ORGANIC PEROXIDE	Concentration (%)	Diluent Type A (%)	Diluent Type B (%)	Inert Solid (%)	Water (%)	Packing Method (BP520)	Control Temperature (°C)	Emergency Temperature (°C)	UN	Subsidiary Hazards and Remarks
ETHYLHEXANOATE										
1,1,3,3- TETRAMETHYLBUTYL PEROXYNEODECANOATE	≤ 72		≥ 28			OP7	-5	+5	3115	
1,1,3,3- TETRAMETHYLBUTYL PEROXYNEODECANOATE	≤ 52 as a stable dispersion in water					OP8	-5	+5	3119	
1,1,3,3-TETRAMETHYLBUTYL PEROXYPIVALATE	≤ 77	≥ 23				OP7	0	+10	3115	
3,6,9-TRIETHYL-3,6,9-TRIMETHYL-1,4,7 TRIPEROXONANE	≤ 42	≥ 58				OP7			3105	(28)
3,6,9-TRIETHYL-3,6,9-TRIMETHYL-1,4,7 TRIPEROXONANE	≤ 17	≥ 18		≥ 65		OP8			3110	

#### Remarks:

- (1) Diluent type B may always be replaced by diluent type A. The boiling point of diluent type B shall be at least 60°C higher than the SADT of the organic peroxide.
- (2) Available oxygen  $\leq 4.7\%$
- (3) (reserved)
- (4) Diluent may be replaced by di-tert-butyl peroxide.
- (5) Available oxygen  $\leq 9\%$
- (6) With  $\leq 9\%$  hydrogen peroxide; available oxygen  $\leq 10\%$
- (7) Only non-metallic packagings are allowed
- (8) Available oxygen > 10% and  $\le 10.7\%$ , with or without water
- (9) Available oxygen  $\leq 10\%$ , with or without water
- (10) Available oxygen  $\leq 8.2\%$ , with or without water
- (11) See 2.2.5.3.2.5
- (12) Up to 2000 kg per receptacle assigned to ORGANIC PEROXIDE TYPE F on the basis of large-scale trials
- (13) Having "CORROSIVE" subsidiary hazard
- (14) Peroxyacetic acid formulations which fulfil the criteria of 20.4.3(d) of the Manual of Tests and Criteria.
- (15) Peroxyacetic acid formulations which fulfil the criteria of 20.4.3(e) of the Manual of Tests and Criteria.
- (16) Peroxyacetic acid formulations which fulfil the criteria of 20.4.3(f) of the Manual of Tests and Criteria.
- (17) Addition of water to this organic peroxide will decrease its thermal stability.
- (18) No "CORROSIVE" subsidiary hazard for concentrations below 80%
- (19) Mixtures with hydrogen peroxide, water and acid(s)
- (20) With diluent type A, with or without water

- (21) With  $\geq$  25% diluent type A by mass, and in addition ethylbenzene
- (22) With ≥ 19% diluent type A by mass, and in addition methyl isobutyl ketone
- (23) With < 6% di-tert-butyl peroxide
- (24) With ≤ 8% 1-isopropylhydroperoxy-4-isopropylhydroxybenzene
- (25) Diluent type B with boiling point  $> 110^{\circ}$ C
- (26) With < 0.5% hydroperoxides content
- (27) For concentrations more than 56%, having "CORROSIVE" subsidiary hazard
- (28) Available active oxygen  $\leq 7.6\%$  in diluent type A having a 95% boil-off point in the range 200-260°C
- (29) Not subject to the provisions for peroxide, class 5.2
- (30) Diluent type B with boiling point > 130°C
- (31) Active oxygen  $\leq 6.7\%$
- (32) Active oxygen  $\leq 4.15\%$

- 2.2.6 Class 6.1 Toxic Substances
- 2.2.6.1 Scope
- 2.2.6.1.1 Class 6.1 are toxic substances liable either to cause death or serious injury or to harm human health if swallowed or inhaled, or by skin contact.
- 2.2.6.1.2 In general, toxic substances having specific UN numbers shall be classified as stated in the DG List, including the packing groups, subsidiary hazards etc. For the substances which are not specified in the DG List but possible to be classified as Class 6.1 DG, the three possible exposure routes of toxic substances i.e. are oral ingestion, dermal contact and inhalation of dusts, mists or vapours; the LD<sub>50</sub> (median lethal dose) for acute oral toxicity, the LD<sub>50</sub> for acute dermal toxicity, or the LC<sub>50</sub> for acute toxicity on inhalation of the substances are examined for the classification of the substances under Class 6.1.
- 2.2.6.1.3 When a substance exhibits a different order of toxicity by two or more routes of administration, the highest degree of danger indicated by the tests shall be assigned.
- 2.2.6.1.4 The LD<sub>50</sub> for the oral and dermal routes as well as LC<sub>50</sub> for inhalation of dusts and mists are considered as the criteria for the three packing groups assignment as shown in the following table:

# Grouping criteria for administration through oral ingestion, dermal contact and inhalation of dusts and mists

Packing	Oral Toxicity	Dermal Toxicity	Inhalation
Group	$LD_{50}$ (mg/kg)	$LD_{50}$ (mg/kg)	Toxicity
			by Dusts and
			Mists
			$LC_{50} (mg/L)^{22}$
I	≤ 5.0	≤ 50	≤ 0.2
II	$> 5.0 \text{ and} \le 50$	$> 50 \text{ and} \le 200$	$> 0.2 \text{ and} \le 2.0$
III	$> 50 \text{ and} \le 300$	$> 200 \text{ and} \le 1000$	$> 2.0 \text{ and} \le 4.0$

- 2.2.6.1.5 For liquids having toxic vapours of saturated vapour concentration "V" in ml/m³ air at 20°C and standard atmospheric pressure <sup>23</sup>, the assignment of their packing groups shall refer to 2.6.2.2.4.3 to 2.6.2.2.4.5 in IMDG Code or 2.6.2.2.4.3 to 2.6.2.2.4.5 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- 2.2.6.1.6 For mixtures of liquids that are toxic by inhalation, the following two cases can be considered in the packing group determination.
- 2.2.6.1.6.1 If the LC<sub>50</sub> data are available for each of the toxic substances comprising the mixture, 2.6.2.2.4.6 to 2.6.2.2.4.7 in IMDG Code or 2.6.2.2.4.6 to 2.6.2.2.4.7 in Recommendations on the Transport of Dangerous Goods Model Regulations may be applied for the calculation of the packing group.
- 2.2.6.1.6.2 If the LC<sub>50</sub> data on the toxic constituent substances of the mixtures of liquids that are toxic by inhalation are absence, the mixture may be assigned a packing group based on the simplified threshold toxicity

The criteria for inhalation toxicity of dusts and mists are based on  $LC_{50}$  data relating to one-hour exposures, and where such information is available it shall be used. However, where only  $LC_{50}$  data relating to four-hour exposures to dusts and mists are available, such figures can be multiplied by four and the product substituted in the above criteria, i.e.  $LC_{50}$  (four-hours)  $\times$  4 is considered the equivalent of  $LC_{50}$  (one-hour).

The criteria for inhalation toxicity of vapours are based on  $LC_{50}$  data relating to one-hour exposures, and where such information is available, it shall be used. However, where only  $LC_{50}$  data relating to four-hour exposures to the vapours are available, such figures can be multiplied by two and the product substituted in the above criteria, i.e.  $LC_{50}$  (four-hours)  $\times$  2 is considered the equivalent of  $LC_{50}$  (one-hour).

tests in 2.6.2.2.4.8 in IMDG Code or 2.6.2.2.4.8 in Recommendations on the Transport of Dangerous Goods Model Regulations. It is noted that when these threshold tests are used, the most restrictive packing group shall be determined and used.

- 2.2.6.2 Methods for determining oral and dermal toxicity of mixtures
- 2.2.6.2.1 When classifying and assigning the appropriate packing group to mixtures in Class 6.1, it is necessary to determine the LD<sub>50</sub> for acute oral and dermal toxicities of the mixture following 2.6.2.3.1 to 2.6.2.3.3 in IMDG Code or 2.6.2.3.1 to 2.6.2.3.3 in Recommendations on the Transport of Dangerous Goods Model Regulations.
- 2.2.6.2.1.1 LD<sub>50</sub> (median lethal dose) for acute oral toxicity is the statistically derived single dose of a substance that can be expected to cause death within 14 days in 50% of both male and female young adult albino rats when administered by the oral route. The LD<sub>50</sub> value is expressed in terms of mass of test substance per mass of test animal (milligrams per kilogram).
- 2.2.6.2.1.2 LD<sub>50</sub> for acute dermal toxicity is that dose of the substance which, administered by continuous contact for 24 hours with the bare skin of the albino rabbit, is most likely to cause death within 14 days in one half of the animals tested. The number of animals tested shall be sufficient to give a statistically significant result and be in conformity with good pharmacological practices. The result is expressed in milligrams per kilogram body mass.
- 2.2.6.2.1.3 LC<sub>50</sub> for acute toxicity on inhalation is that concentration of vapour, mist or dust which, administered by continuous inhalation to both male and female young adult albino rats for one hour, is most likely to cause death within 14 days in one half of the animals tested. A solid substance shall be tested if at least 10% (by mass) of its total mass is likely to be dust in the respirable range, such as the aerodynamic diameter of that particle fraction is 10 microns or less. A liquid substance shall be tested if a mist is likely to be generated in a leakage of the containment. For both solid and liquid substances, more than 90% (by mass) of a specimen prepared for inhalation toxicity testing

shall be in the respirable range as defined above. The result is expressed in milligrams per litre of air for dusts and mists or in millilitres per cubic metre of air (parts per million) for vapours.

# 2.2.7 (*Reserved*)

- 2.2.8 Class 8 Corrosive Substances
- 2.2.8.1 Scope
- 2.2.8.1.1 Corrosive substances are substances which, by chemical action, will cause irreversible damage to the skin, or, in the case of leakage, will materially damage, or even destroy other goods.
- 2.2.8.1.2 Class 8 substances with specific UN numbers shall be classified as stated in the DG List, including the packing groups, subsidiary hazards etc.
- 2.2.8.1.3 For new substances and mixtures which are not specified in the DG List but having properties possible to be classified as Class 8 DG, classification as Class 8 DG and packing group assignments are done on the basis of the length of time of contact necessary to produce irreversible damage to intact skin tissue in accordance with criteria in 2.2.8.2.3 and 2.2.8.2.6 are applied. Alternatively, for mixtures, the criteria in 2.2.8.3 can be used.
- 2.2.8.2 Assignment of packing groups of Class 8 DG
- 2.2.8.2.1 Substances and mixtures of Class 8 are divided among the three packing groups according to their degree of hazard:

(a) Packing Group I: very dangerous substances and mixtures;

(b) Packing Group II: substances and mixtures presenting

medium danger; and

(c) Packing Group III: substances and mixtures presenting minor

danger.

- 2.2.8.2.2 Existing human and animal data including information from single or repeated exposure shall be the first line of evaluation, as they give information directly relevant to effects on the skin.
- 2.2.8.2.3 In assigning the packing group, account shall be taken of human experience in instances of accidental exposure. In the absence of

human experience, the grouping shall be based on data obtained from experiments in accordance with OECD Test Guidelines Nos. 404, 435, 431 or 430 <sup>24</sup>. A substance which is determined not to be corrosive by experiments in accordance with the aforementioned OECD Test Guidelines or non-classified in accordance with OECD Test Guideline No. 439 <sup>25</sup> may be considered not to be corrosive to skin for the purposes of the Code without further testing.

- 2.2.8.2.4 Allocation of substances listed in the DG List to the packing groups in Class 8 has been made on the basis of experience, taking into account such additional factors as inhalation hazard and reactivity with water; a substance or mixture meeting the criteria of Class 8 and having an inhalation toxicity of dusts and mists (LC<sub>50</sub>) in the range of packing group I, but toxicity through oral ingestion or dermal contact only in the range of packing group III or less, shall be allocated to Class 8 (see 2.1.2.1).
- 2.2.8.2.5 The reactivity of the substance with water (including the formation of dangerous decomposition products) shall also be considered.
- 2.2.8.2.6 Packing groups of Class 8 corrosive substances are assigned in accordance with the following criteria:
  - (a) Packing Group I: substances that cause irreversible damage to intact skin tissue within an observation period up to 60 minutes starting after the exposure time of three minutes or less;
  - (b) Packing Group II: substances that cause irreversible damage to intact skin tissue within an observation period up to 14 days starting after the exposure time of more than three minutes but not more than 60 minutes; and

OECD Guideline for the testing of chemicals No. 404 Acute Dermal Irritation/ Corrosion 2015.
OECD Guideline for testing of chemicals No. 435 in Vitro Membrane Barrier Test Method for Skin Corrosion 2015.

OECD Guideline for the testing of chemicals No. 431 in Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method 2016.

OECD Guideline for the testing of chemicals No. 430 in Vitro Skin Corrosion: Transcutaneous Electrical Resistance Test Method (TER) 2015.

OECD Guideline for the testing of chemicals No. 439 in Vitro Skin Irritation: Reconstructed Human Epidermis Test Method 2015

- (c) Packing Group III: (i) substantial dama
- substances that cause irreversible damage to intact skin tissue within an observation period up to 14 days starting after the exposure time of more than 60 minutes but not more than four hours; or
  - (ii) substances that are judged not to cause irreversible damage to intact skin tissue but which exhibit a corrosion rate <sup>26</sup> on either steel or aluminium surfaces exceeding 6.25 mm a year at a test temperature of 55°C when tested on both materials.

### 2.2.8.2.7 Table summarising the criteria in 2.2.8.2.6

Packing	Exposure	Observation	Effect
Group	Time	Period	
Ι	≤ 3 min	≤ 60 min	Irreversible damage of
			intact skin
II	$> 3 \min \le 1 h$	≤ 14 d	Irreversible damage of
			intact skin
III	$> 1 \text{ h} \leq 4 \text{ h}$	≤ 14 d	Irreversible damage of
			intact skin
III	_	_	Corrosion rate on either
			steel or aluminium
			surfaces exceeding
			6.25 mm a year at a test
			temperature of 55°C when
			tested on both materials

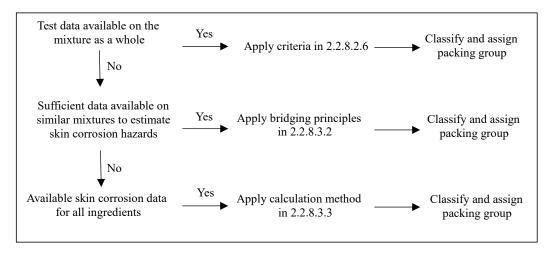
# 2.2.8.3 Alternative packing group assignment methods for mixtures: Step-wise approach

## 2.2.8.3.1 General provisions

Acceptable test for corrosion rate on steel or aluminium is prescribed in the Manual of Tests and Criteria, Part III, section 37. Where an initial test on either steel or aluminium indicates the substance being tested is corrosive, the follow-up test on other metal is not required.

2.2.8.3.1.1 For mixtures it is necessary to obtain or derive information that allows the criteria to be applied to the mixture for the purpose of classification and assignment of packing groups. Depending on the amount of information available for the mixture itself, for similar mixtures and/or for its ingredients, the flow chart of Figure below outlines the process to be followed:

Figure - Step-wise approach to classify and assign packing group of corrosive mixtures



## 2.2.8.3.2 Bridging principles

2.2.8.3.2.1 Where a mixture has not been tested to determine its skin corrosion potential, but there are sufficient data on both the individual ingredients and similar tested mixtures to adequately classify and assign a packing group for the mixture, these data will be used in accordance with the following bridging principles:

- (a) **Dilution**<sup>27</sup>: if a tested mixture is diluted with a diluent which does not meet the criteria for Class 8 and does not affect the packing group of other ingredients, then the new diluted mixture may be assigned to the same packing group as the original tested mixture.
- (b) **Batching**: the skin corrosion potential of a tested production batch of a mixture can be assumed to be substantially equivalent

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In certain cases, diluting a mixture or substance may lead to an increase in the corrosive properties. If this is the case, this bridging principle cannot be used.

to that of another untested production batch of the same commercial product when produced by or under the control of the same manufacturer, unless there is reason to believe there is significant variation such that the skin corrosion potential of the untested batch has changed. If the latter occurs, a new classification is necessary.

- (c) Concentration of mixtures of packing group I: if a tested mixture meeting the criteria for inclusion in packing group I is concentrated, the more concentrated untested mixture may be assigned to packing group I without additional testing.
- (d) Interpolation within one packing group: for three mixtures (A, B and C) with identical ingredients, where mixtures A and B have been tested and are in the same skin corrosion packing group, and where untested mixture C has the same Class 8 ingredients as mixtures A and B but has concentrations of Class 8 ingredients intermediate to the concentrations in mixtures A and B, then mixture C is assumed to be in the same skin corrosion packing group as A and B.
- (e) Substantially similar mixtures: given the following:
  - (i) Two mixtures: (A+B) and (C+B);
  - (ii) The concentration of ingredient B is the same in both mixtures;
  - (iii) The concentration of ingredient A in mixture (A+B) equals the concentration of ingredient C in mixture (C+B);
  - (iv) Data on skin corrosion for ingredients A and C are available and substantially equivalent, i.e. they are the same skin corrosion packing group and do not affect the skin corrosion potential of B.

If mixture (A+B) or (C+B) is already classified based on test data, then the other mixture may be assigned to the same packing group.

- 2.2.8.3.3 Calculation method based on the classification of the substances
- 2.2.8.3.3.1 Where a mixture has not been tested to determine its skin corrosion potential, nor is sufficient data available on similar mixtures, the corrosive properties of the substances in the mixture shall be considered to classify and assign a packing group.
- 2.2.8.3.3.2 The calculation method stated in 2.8.4.3 in IMDG Code or 2.8.4.3 in Recommendations on the Transport of Dangerous Goods Model Regulations shall be applied. It should be noted that applying the calculation method is only allowed if there are no synergistic effects that make the mixture more corrosive than the sum of its substances. This restriction applies only if packing group II or III would be assigned to the mixture.
- 2.2.8.3.3.3 When using the calculation method, all Class 8 ingredients present at a concentration of  $\geq$  1% shall be taken into account, or < 1% if these ingredients are still relevant for classifying the mixture to be corrosive to skin.

- 2.2.9 Class 9 Miscellaneous Dangerous Substances or Materials
- 2.2.9.1 Scope
- 2.2.9.1.1 For the purposes of the Ordinance, Class 9 DG are substances which present a danger not covered by other classes. Class 9 DG are listed in Part 2 of Schedule 2 of Cap. 295E which includes DG in the following table.

UN No.	Proper Shipping Name	Packing
		Group
1841	ACETALDEHYDE AMMONIA	III
1941	DIBROMODIFLUOROMETHANE	III
1990	BENZALDEHYDE	III
2211	POLYMERIC BEADS,	III
	EXPANDABLE, evolving	
	flammable vapour	

#### Chapter 2.3 <u>Compatibility of DG</u>

#### 2.3.1 Legal Requirements

#### 2.3.1.1 Pursuant to section 110 of Cap. 295G:

- (1) A person must not store, or cause or permit to be stored, 2 or more types of S2DG (whether or not of the same class) that are incompatible in a licensed store.
- (2) For subsection (1), 2 or more types of S2DG are incompatible if, when they come into contact with each other or all others—
  - (a) a combustion occurs or is likely to occur;
  - (b) considerable heat is, or is likely to be, generated;
  - (c) a flammable, asphyxiant, oxidizing or toxic gas is, or is likely to be, generated;
  - (d) a corrosive substance is, or is likely to be, formed; or
  - (e) a chemically unstable substance is, or is likely to be, formed.
- (3) Without limiting subsection (1)—
  - (a) Class 2 S2DG must not be stored with S2DG of a different class;
  - (b) Class 3 S2DG must not be stored with S2DG of a different class, except Class 3A S2DG or paint materials that are Class 3 S2DG or Class 8 S2DG;
  - (c) Class 3A S2DG must not be stored with S2DG of a different class, except Class 3 S2DG or paint materials that are Class 3 S2DG or Class 8 S2DG; and
  - (d) Class 4 S2DG, Class 5 S2DG, Class 6.1 S2DG, Class 8 S2DG or Class 9 S2DG must not be stored with Class 2 S2DG, Class 3 S2DG or Class 3A S2DG, or S2DG of any other class so specified for the purposes of this paragraph in the code of practice.
- (4) A person who contravenes subsection (1) commits an offence and is liable on conviction to a fine at level 4 and to imprisonment for 2 months.

#### 2.3.2 General Application

2.3.2.1 Multiple types of DG shall not be stored together in a licensed store if they are incompatible. This chapter provides a practical guidance on how to determine the compatibility of DG to facilitate the application

for a licensed store. To determine the compatibility of multiple types of DG, relevant compatibility tables at 2.3.3.2 and the compatibility groups and rules at column 10 of the DG List shall be observed.

- 2.3.2.2 Considering the dangerous consequences and restrictions pursuant to section 110(2)&(3) of Cap. 295G as well as the packing requirements for the DG being complied with during storage of DG, the compatibility tables in 2.3.3.2 are prepared and compatibility groups and rules are assigned to DG at column 10 of the DG List for the purpose of determining the compatibility of different DG.
- 2.3.2.3 The compatibility rules stated in this chapter do not apply to the storage of multiple types of DG when each type of DG does not exceed the GEQ / IEQ / SEQ (as the case may be) and the aggregate quantity does not exceed the aggregate EQ.
- 2.3.3 Determining the Compatibility
- 2.3.3.1 The methods on determining the compatibility of DG are as below and a flowchart is provided at 2.3.6 of this Chapter for easy reference:
  - (1) Identify the classes of DG by referring to the DG List;
  - (2) Check the relevant compatibility tables in 2.3.3.2 for respective classes of DG. If it appears that the DG are incompatible, they are not allowed to be stored together in a licensed store. Otherwise, step (3) shall be followed; and
  - (3) Check if there is any compatibility groups and compatibility rules for each DG at column 10 of the DG List:
    - if no, they are compatible; or
    - if yes, check the compatibility groups (CG) and compatibility rules (CR) for each DG at column 10 by making reference to the descriptions of CG and CR in tables in 2.3.3.3.1 to determine the compatibility.

#### 2.3.3.2 Compatibility Tables

The general provisions for incompatibility between various classes of DG are shown in the "compatibility tables" below. In using the compatibility tables, the class of DG only denotes the primary hazard. Since the properties of different DG within each class may vary greatly, the column 10 of the DG List shall always be referred beforehand. Pursuant to section 110(3) of Cap. 295G, 3 compatibility tables are provided for the following 3 groups of DG classes respectively:

- (1) Class 2.1, 2.2 & 2.3 DG (para. 2.3.3.2.1);
- (2) Class 3, 3A DG and paint materials that are Class 8 DG (para. 2.3.3.2.3); and
- (3) Class 4, 5, 6.1, 8 & 9 DG (para. 2.3.3.2.5).

#### 2.3.3.2.1 Compatibility Table for Class 2.1, 2.2 & 2.3 DG

CLASS	2.1#	2.2#	2.3#
Flammable gases (2.1)	О	О	X
Non-flammable, non-toxic gases (2.2)	О	О	O
Toxic gases (2.3)	X	О	О

- O Column 10 of the DG List shall be referred
- X Incompatible
- # Class 2 DG in limited packs are compatible with each other regardless of the table in 2.3.3.2.1 above and their CG & CR.
- 2,3,3,2,2 Class 2 DG can be divided into 3 classes:
  - (1) Class 2.1 DG flammable gases;
  - (2) Class 2.2 DG non-flammable, non-toxic gases which include inert gases and oxidizing gases (compatibility groups shall be referred for oxidizing gases); and
  - (3) Class 2.3 DG toxic gases.

The compatibility of Class 2 DG are as follows:

(1) Class 2 DG is incompatible with any other classes of DG;

- (2) Flammable gases, oxidizing gases and toxic gases are incompatible with each other;
- (3) Inert gases are compatible with flammable gases, toxic gases and oxidizing gases (CG19 & CR7 shall be referred); and
- (4) Class 2 DG in limited packs are compatible with each other regardless of (2) and (3) above and their CG & CR.

# 2.3.3.2.3 Compatibility Table for Class 3, 3A DG and paint materials that are Class 8 DG

CLASS	<u>3#</u>	<u>3A#</u>	<u>8*#</u>
Flammable liquids (3)	O	O	O
Diesel oils, furnace oils and other fuel oils (3A)	O	O	O
Paint materials (8*)	O	O	O

- O Column 10 of the DG List shall be referred and Class 3 or 3A DG, which are immiscible<sup>28</sup> with water, are incompatible with any such DG, which are miscible with water.
- \* Only for paint materials that are Class 8 DG.
- # Class 3, 3A DG in limited packs and paint materials in limited packs are compatible with each other regardless of their miscibility and any CG & CR.

#### 2.3.3.2.4 The compatibility of Class 3 or 3A DG are as follows:

- (1) Class 3 DG is incompatible with any other classes of DG except Class 3A DG or paint materials that are Class 3 or 8 DG;
- (2) Class 3A DG is incompatible with any other classes of DG except Class 3 DG or paint materials that are Class 3 or 8 DG;
- (3) Class 3 or 3A DG, which are immiscible with water, are incompatible with any such DG, which are miscible with water; and
- (4) Class 3, 3A DG in limited packs and paint materials in limited packs are compatible with each other regardless of their miscibility and any CG & CR.

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<sup>&</sup>lt;sup>28</sup> Miscibility of Class 3 / 3A DG are determined by methods stated in ASTM D1722-09 or relevant recognised national or international standards.

#### 2.3.3.2.5 Compatibility Table of Class 4, 5, 6.1, 8 & 9 DG

Class	4.1#	4.2#	4.3#	<u>5.1#</u>	<u>5.2#</u>	<u>6.1#</u>	<u>8#</u>	<u>9#</u>
Flammable solids (4.1)	О	О	О	О	X	О	О	О
Substances liable to	О	О	О	X	X	О	О	О
spontaneous								
combustion (4.2)								
Substances which, in	О	O	О	X	X	О	О	О
contact with water, emit								
flammable gases (4.3)								
Oxidizing substances	O	X	X	О	X*	О	X	О
(5.1)								
Organic peroxides (5.2)	X	X	X	X*	О	О	X	О
Toxic substances (6.1)	О	О	О	О	О	О	О	О
Corrosive substances	O	O	О	X	X	О	О	О
(8)								
Miscellaneous	О	О	О	О	О	О	О	О
dangerous substances or								
materials (9)								

- O Column 10 of the DG List shall be referred
- X Incompatible
- \* Class 5.1 or 5.2 DG in table 2.3.3.2.6 below are compatible with each other.
- # Regardless of the table in 2.3.3.2.5 above and CG & CR of the DG:
  - (a) Class 4, 5, 6.1, 8 & 9 DG in limited packs are compatible with each other; and
  - (b) Class 4, 5, 6.1, 8 & 9 DG which comprise the same substance but vary only in their water content are compatible with each other.

	<u>Table 2.3.3.2.6</u>		_	
<u>UN</u>	Proper shipping name	Class	<u>Subsidiary</u>	<b>Packing</b>
			hazard(s)	<u>Group</u>
2014	HYDROGEN PEROXIDE, AQUEOUS	5.1	8	II
	SOLUTION			
2984	HYDROGEN PEROXIDE, AQUEOUS	5.1	-	III
	SOLUTION			
3105	ORGANIC PEROXIDE TYPE D,	5.2	8	-
	LIQUID			
3107	ORGANIC PEROXIDE TYPE E,	5.2	8	-
	LIQUID			
3109	ORGANIC PEROXIDE TYPE F,	5.2	8	-
	LIQUID			
3149	HYDROGEN PEROXIDE AND	5.1	8	II
	PEROXYACETIC ACID, MIXTURE,			
	STABILIZED			

## 2.3.3.3 Compatibility Group (CG) and Compatibility Rule (CR)

# 2.3.3.3.1 For the purpose of determining compatibility, some DG are assigned with CG describing their chemical properties and CR describing their rules of compatibility. CG and CR are not applicable to DG in limited packs. The descriptions of various CG and CR are listed below and the CG and CR of different DG are provided in column 10 of the DG List. In utilizing the CG and CR, the class of DG only denotes the primary hazard regardless of their subsidiary hazards.

Table - List of Compatibility Groups			
Compatibility Group	<u>Description</u>		
CG1	Acids		
CG2	Ammonium compounds		
CG3	Bromates		
CG4	Chlorates		
CG5	Chlorites		
CG6	Cyanides		
CG7	Heavy metals and their salts		
	(including their organometallic compounds)		
CG8	Hypochlorites		
CG9	Lead and its compounds		
CG10	Liquid halogenated hydrocarbons		
CG11	Mercury and mercury compounds		
CG12	Nitrites and their mixtures		
CG13	Perchlorates		
CG14	Permanganates		
CG15	Powdered metals		
CG16	Peroxides		
CG17	Azides		
CG18	Alkalis		
CG19	Oxidizing gases (non-flammable & non-toxic)		

Table - List of Compatibility Rules			
Compatibility Rule	<u>Description</u>		
CR1	For arsenic sulphides, incompatible with CG1 – acids		
CR3	Incompatible with Class 5.1 DG		
CR4	Incompatible with Class 4.1 DG		
CR5	Incompatible with CG1 – acids		
CR6	Incompatible with CG18 – alkalis		
CR7	Incompatible with CG19 – oxidizing gases		
CR8	Incompatible with CG15 – powdered metals		
CR9	Incompatible with ammonia		
CR10	Incompatible with CG2 – ammonium compounds		
CR11	Incompatible with CG2 – ammonium compounds		
	other than AMMONIUM PERSULPHATE (UN		
	1444)		

CR12	Incompatible with CG2 – ammonium compounds
	other than mixtures of ammonium persulphates
	and/or potassium persulphates and/or sodium
	persulphates
CR13	Incompatible with CG3 – bromates
CR14	Incompatible with bromine
CR15	Incompatible with CG4 – chlorates
CR16	Incompatible with chlorine
CR17	Incompatible with CG5 – chlorites
CR18	Incompatible with CARBON TETRACHLORIDE
	(UN 1846)
CR19	Incompatible with CG6 – cyanides
CR20	Incompatible with CG8 – hypochlorites
CR21	Incompatible with iron oxide
CR22	If flashpoint is 60°C or below, incompatible with
	Class 4.2, 4.3, 5.1 & 5.2 DG
CR23	Incompatible with CG11 - mercury and mercury
	compounds
CR24	Incompatible with mercury salts
CR25	Incompatible with CG12 – nitrites
CR26	Incompatible with CG13 – perchlorates
CR27	Incompatible with CG14 – permanganates
CR28	Incompatible with CG16 – peroxides
CR29	Incompatible with sulphur
CR30	Incompatible with Class 4.2, 4.3, 5.1 & 5.2 DG except
	DG of same class
CR31	Incompatible with Class 4.2, 4.3, 5.2 & 8 DG except
	DG of same class

#### 2.3.4 Final Scrutiny of the Application for Licensed Store

2.3.4.1 The application for licensed store shall be subject to the final scrutiny by FSD with the assistance of the Government Laboratory. Test reports or documents issued by recognised laboratories verifying that the DG do not react dangerously with each other can be provided for further consideration.

#### 2.3.5 Examples of Determining Compatibility

The following examples illustrate how to determine compatibility of DG not in limited packs:

### Example I

Compatibility of PIPERAZINE (UN 2579) and ALUMINIUM CHLORIDE SOLUTION (UN 2581)

#### **UN 2579 PIPERAZINE**

<u>Information</u>	<u>Meaning</u>
Class 8	Incompatible with Classes 2, 3 and 5.1 and 5.2
	DG according to Compatibility Table
CG18	Chemical property: alkalis
CR5	Incompatible with CG1 – acids

#### **UN 2581 ALUMINIUM CHLORIDE SOLUTION**

<u>Information</u>	<u>Meaning</u>
Class 8	Incompatible with Classes 2, 3 and 5.1 and 5.2
	DG according to Compatibility Table
CG1	Chemical property: acids
CR6	Incompatible with CG18 – alkalis
CR19	Incompatible with CG6 – cyanides

- 1. According to the DG List, UN 2579 and UN 2581 are Class 8 DG.
- 2. According to the compatibility table in 2.3.3.2.5, Class 8 DG are mutually compatible. Therefore, column 10 of the DG List shall be checked.
- 3. For UN 2579, column 10 of the DG List states "CG18" (Alkalis) and "CR5" (Incompatible with CG1 acids).

- 4. For UN 2581, column 10 of the DG List states "CG1" (Acids), "CR6" (incompatible with CG18 alkalis) and "CR19" (Incompatible with CG6 cyanides).
- 5. According to CG18 of UN 2579 and CR6 of UN 2581, UN 2579 and UN 2581 are incompatible.

#### Example II

Compatibility of SODIUM NITRATE (UN 1498) and MORPHOLINE (UN 2054)

#### **UN 1498 SODIUM NITRATE**

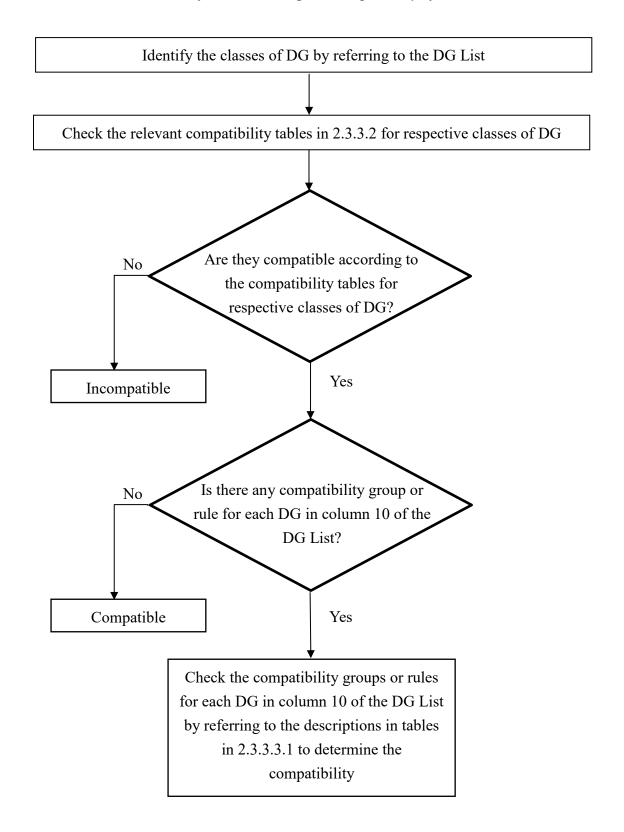
<u>Information</u>	<u>Meaning</u>
Class 5.1	Incompatible with Class 2, 3, 4.2, 4.3, 5.2 and 8
	DG according to Compatibility Table

#### UN 2054 MORPHOLINE

<b>Information</b>	<u>Meaning</u>
Class 8	Incompatible with Classes 2, 3 and 5.1 and 5.2
	DG according to Compatibility Table

- 1. According to the DG List, UN 1498 is Class 5.1 DG and UN 2054 is Class 8 DG.
- 2. According to the compatibility table in 2.3.3.2.5, Class 5.1 DG is incompatible with Class 8 DG.
- 3. Therefore, UN 1498 and UN 2054 are incompatible.

#### 2.3.6 Flowchart for Determining the Compatibility of DG



# Part III PACKING, MARKING AND LABELLING

### Chapter 3.1 General Provisions of Packing, Marking and Labelling

### 3.1.1 Background

3.1.1.1 Pursuant to section 142(1) of Cap. 295G, DG being stored or conveyed are required to comply with the packing, marking and labelling (PML) requirements stipulated in Schedule 6 of Cap. 295G. This Part provides PML requirements for all DG, except for packing requirements for Class 2 DG which are stipulated in Part IV of the Code.

#### 3.1.2 Legal Requirements

#### 3.1.2.1 Pursuant to section 142 of Cap. 295G:

- (1) A person must not store or convey, or cause or permit to be stored or conveyed, S2DG unless the packing, marking and labelling requirements specified in Schedule 6 are complied with in relation to the S2DG.
- (2) If 2 labels prescribed in Division 2 of Part 3 of Schedule 6 bear the same figure number but are followed by different letters, the reference to "a label" in section 13 of Schedule 6 is to be read as a reference to either of those labels.
- (3) A person who contravenes subsection (1) commits an offence and is liable on conviction to a fine at level 6 and to imprisonment for 6 months.

#### 3.1.3 General Application and Exemptions

- 3.1.3.1 The packing, marking and labelling requirements for DG are provided in Chapter 3.2, 3.3 and 3.4 of this Part respectively.
- 3.1.3.2 The PML requirements under section 142 do not apply to DG in consumer packs, UN 3065 ALCOHOLIC BEVERAGES, Class 3A DG

in an approved tank and DG forming part of machinery.<sup>29</sup> For the purpose of identifying DG in consumer packs, the maximum package size (MPS) in relation to a DG is specified in column 9 of the DG List.

- 3.1.3.3 The marking and labelling requirements under section 142 do not apply to DG in limited packs.<sup>30</sup> For the purpose of identifying DG in limited packs, the limited quantity (LQ) in relation to a DG is specified in column 8 of the DG List.
- 3.1.3.4 DG packed, marked and labelled in conformity with the IMDG Code are regarded as complying with the PML requirements of Cap. 295G. Nevertheless, the special packing requirements (i.e. approval and periodic testing of pressure receptacles) for Class 2 DG as stipulated in section 145 of Cap. 295G are still required. In addition, Class 3A DG is required to comply with the PML requirements of Cap. 295G as there is no Class 3A DG in the IMDG Code.

<sup>&</sup>lt;sup>29</sup> Section 140 of Cap. 295G - PML requirements do not apply to:

<sup>(</sup>a) S2DG in consumer packs;

<sup>(</sup>b) S2DG with UN number UN 3065 specified in Part 2 of Schedule 2 to Cap. 295E;

<sup>(</sup>c) Class 3A S2DG in an approved tank; or

<sup>(</sup>d) S2DG that are—

<sup>(</sup>i) contained in a receptacle that is permanently installed in and forming part of a machinery; and

<sup>(</sup>ii) used or intended to be used for the proper functioning of the machinery.

<sup>&</sup>lt;sup>30</sup> Section 141 of Cap. 295G -

#### Chapter 3.2 <u>Packing</u>

# 3.2.1 Legal Requirements

- 3.2.1.1 The packing requirements are stipulated in sections 2 to 7 of Schedule 6 of Cap. 295G which are replicated below:
  - 2. S2DG must not be packed together with any other S2DG that is specified as incompatible in the code of practice.
  - 3. S2DG packaging must be—
    - (a) designed, made of appropriate materials and of a size, so as to be—
      - (i) suitable for the packaging, having regard to the nature of the S2DG contained in it and the capability of withstanding ordinary risks during storage or conveyance; and
      - (ii) able to protect the S2DG against inadvertent or accidental ignition or initiation during storage or conveyance; and
    - (b) maintained in good condition and repair and free from corrosion, contamination or any other defect which may impair its performance.
  - 4. S2DG packaging must be of a size specified in the code of practice, if applicable.
  - 5. S2DG packaging must be filled in conformity with the filling ratio specified in the code of practice, if applicable.
  - 6. S2DG packaging must be filled with S2DG to the extent as to leave within the packaging air space or ullage that is not less than the minimum air space or ullage specified in the code of practice, if applicable.
  - 7. S2DG packaging must be tested according to a method specified in the code of practice, if applicable.

- 3.2.2 General Application
- 3.2.2.1 This chapter provides standards and guidelines on the packing of DG, except for Class 2 DG, as required in Schedule 6 of Cap. 295G.
- 3.2.2.2 It is important to note that the packing requirement of DG is independent from the licensing requirement of DG. Packing requirement regulates how the DG shall be packed, e.g. the size and material of the packaging, whilst licensing requirement refers to when a DG licence is required, e.g. quantity of DG exceeds EQ. Thus, packing requirement shall be observed for the storage or conveyance of DG independently from the licensing requirement of DG.
- 3.2.2.3 The requirements in this chapter should not be regarded as exhausting those matters which need to be covered by the relevant legal requirements.
- 3.2.3 Packing Requirements
- 3.2.3.1 Basic Packing Instructions (BP)
- 3.2.3.1.1 The appropriate Basic Packing Instruction (BP) and the Special Packing Instruction (SP) under the BP, if any, for the specific DG provided at column 7 of the DG List shall be met. Details of BP with SP are provided at Appendix 5 of the Code.
- 3.2.3.1.2 The BP provides the suitable type of packaging [i.e. combination packaging (inner packaging together with outer packaging), single packaging, composite packaging and cylinder (in BP209 only)] with details, including appropriate material, size limit and other requirements, for storage and conveyance of the respective DG. Under BP, SP is also specified for some DG which provides additional packing requirements for the specific DG.
- 3.2.3.1.3 If combination packaging is suitable according to the corresponding BP of the DG, the individual use of an inner packaging (without the outer packaging of a combination packaging) is also considered as suitable during:

- (a) conveyance of DG with each type of DG does not exceed their respective GEQ and the aggregate quantity of DG does not exceed the aggregate EQ; and
- (b) storage of DG.
- 3.2.3.1.4 Tanks licensed / approved by FSD are also suitable for storage of DG.
- 3.2.3.2 General Provisions
- 3.2.3.2.1 The packaging shall be strong enough to withstand the shocks and loadings normally encountered during normal conditions of handling.
- 3.2.3.2.2 No dangerous residue shall adhere to the outside of packaging.
- 3.2.3.2.3 The interior surface of the packaging with which the DG may come into contact:
  - (a) shall not be affected or significantly weakened by those DG;
  - (b) shall not cause a dangerous effect (e.g. catalysing a reaction or reacting with the DG);
  - (c) shall not allow permeation of the DG that could constitute a danger under normal conditions of storage or conveyance; and
  - (d) where necessary to comply with (a) to (c) above, they shall be provided with a suitable inner coating or treatment.
- 3.2.3.2.4 When DG are conveyed exceeding the GEQ or aggregate EQ, as the case may be, and combination packaging is used, the inner packagings shall be packed in the outer packaging in such a way that the inner packagings cannot break or leak their contents into the outer packaging or they cannot be punctured. Inner packagings that are susceptible to physical damage, such as those made of glass, porcelain or of certain plastic materials etc., shall be secured in outer packaging with suitable cushioning materials. The protective properties of the cushioning materials or of the outer packaging shall not be substantially impaired by any leakage of the contents.

- 3.2.3.2.5 Cushioning and absorbent materials used shall be inert and suited to the nature of the contents.
- 3.2.3.2.6 The nature and the thickness of the outer packagings shall be such that friction during conveyance does not generate any heating likely to alter dangerously the chemical stability of the contents.
- 3.2.3.2.7 Liquids shall be filled only into packagings which have appropriate resistances to the internal pressure that may develop under normal conditions of storage and conveyance. As the vapour pressure of low-boiling-point liquids is usually high, the strength of receptacles for these liquids shall be sufficient to withstand, with an ample factor of safety, the internal pressure likely to be generated.
- 3.2.3.2.8 Packagings for solids that may become liquid at temperatures likely to be encountered during storage and conveyance shall also be capable of containing the substances in the liquid state.
- 3.2.3.2.9 Packagings for powdery or granular substances shall be sift-proof or shall be provided with a liner.
- 3.2.3.2.10 The integrity of the packaging shall not be affected if ice is used as a coolant.
- 3.2.3.2.11 The table below listed all the suitable types of outer packagings of combination packagings, single packagings and composite packagings with the maximum capacity or maximum net mass for the DG with the Basic Packing Instructions of BP003, BP302, BP406, BP412, BP601, BP602 & BP804, when there is no maximum net mass or capacity specified in the BP.

Kind	Material	Category	Maximum Capacity	Maximum Net Mass
			(L)	(kg)
Drums	Steel	Non-removable	450	400
		Removable		
	Aluminium	Non-removable		
		Removable		
	Metal, other than steel	Non-removable		
	or aluminium	Removable		
	Fibre	N.A.	450	_
	Plastics	Non-removable		
		Removable		
	Plywood	N.A.	250	
Jerricans	Steel	Non-removable	60	120
		Removable		
	Aluminium	Non-removable		
		Removable		
	Plastics	Non-removable		
		Removable		
	_			
Boxes	Natural wood	Ordinary	N.A.	400
		With sift-proof walls		
	Plywood	N.A.		
	Reconstituted wood	N.A.		
	Fibreboard wood	N.A.		
	Plastics	Expanded plastics		60
		Solid plastics		400
	Steel, Aluminium or	N.A.		400
	other metal			
Bags	Textile	Without inner lining or coating	N.A.	50
		Sift-proof		

		Water-resistant	_	
	Woven plastics	Without inner lining or		
		coating	_	
		Sift-proof		
		Water-resistant	_	
	Plastics film	N.A.		
	Paper	Multiwall		
		Multiwall, water-		
		resistant		
Composite	Packaging (Plastics ma	terial)		
Plastics rec	eptacle with outer steel d	rum	250	400
Plastics rec	eptacle with outer alumin	nium drum		
Plastics rec	eptacle with outer plywo	od drum		
Plastics rec	eptacle with outer fibre d	rum		
Plastics rec	eptacle with outer plastic	s drum		
Plastics rec	eptacle with outer steel ca	rate or box	60	75
Plastics receptacle with outer aluminium crate or box				
Plastics receptacle with outer wooden box				
Plastics receptacle with outer plywood box				
Plastics receptacle with outer fibreboard box				
Plastics receptacle with outer solid plastics box				
Composite	Packaging (Glass or Po	orcelain)	1	
Receptacle	with outer steel drum		60	75
Receptacle with outer steel crate or box				
Receptacle with outer aluminium drum				
Receptacle with outer aluminium crate or box				
Receptacle with outer wooden box				
Receptacle with outer plywood drum				
Receptacle with outer wickerwork hamper				
Receptacle	Receptacle with outer fibre drum		1	
Receptacle with outer fibreboard box				
Receptacle with outer expanded plastics packaging				
Receptacle with outer solid plastics packaging		1		
	•		I	

- 3.2.3.3 Closure
- 3.2.3.3.1 The packaging shall be constructed and closed so as to prevent any loss of contents which may be caused under normal conditions of handling, by vibration, or by changes in temperature, humidity or pressure. The packaging shall be closed in accordance with the information provided by the manufacturer, if any.
- 3.2.3.3.2 The closures of packagings containing wetted or diluted substances shall be such that the percentage of liquid (water, solvent or phlegmatizer) does not fall below the prescribed limits, as stated in Cap. 295E and Chapter 2.2 of the Code, during storage and conveyance.
- 3.2.3.3.3 Unless otherwise specified in the BP, packages containing following DG shall be hermetically sealed:
  - (a) evolve flammable gases or vapour;
  - (b) may become explosive if allowed to dry;
  - (c) evolve toxic gases or vapour;
  - (d) evolve corrosive gases or vapour; or
  - (e) may react dangerously with the atmosphere.
- 3.2.3.4 Vent
- 3.2.3.4.1 A venting device shall be fitted if dangerous overpressure may develop due to normal decomposition of substances or the emission of gas from the contents (as a result of temperature increase or other causes) provided that the gas emitted will not cause danger on account of its toxicity, its flammability, the quantity released, etc. The vent shall be so designed that leakages of liquid and the penetration of foreign substances are prevented under normal conditions of handling.
- 3.2.3.5 Filling
- 3.2.3.5.1 Packaging being filled shall be maintained in good condition and repair and free from corrosion, contamination or other defects.
- 3.2.3.5.2 When filling packagings with liquids, sufficient ullage shall be left to

ensure that neither leakage nor permanent distortion of the packaging occurs as a result of an expansion of the liquid caused by temperatures. For a filling temperature of 15°C, the minimum ullage shall be determined as follows, unless otherwise provided in BP:

Initial boiling	< 60	≥ 60	≥ 100	≥ 200	≥ 300
point of DG in °C		< 100	< 200	< 300	
Minimum ullage	10%	8%	6%	4%	2%

- 3.2.3.6 Mixed Packing Provisions
- 3.2.3.6.1 Multiple types of DG shall not be packed together if they are determined as incompatible according to 2.3.3 of the Code, except for the following situations:
  - (a) during storage, each type of DG does not exceed their respective GEQ / IEQ / SEQ (as the case may be) and the aggregate quantity of DG does not exceed the aggregate EQ; or
  - (b) during conveyance, each type of DG does not exceed their respective GEQ and the aggregate quantity of DG does not exceed the aggregate EQ.
- 3.2.3.6.2 In principle, DG shall not be packed together in the same outer packaging with other DG or other goods which may react dangerously with each other and cause:
  - (a) combustion and / or evolution of considerable heat;
  - (b) evolution of flammable, toxic or asphyxiant gases;
  - (c) formation of corrosive substances; or
  - (d) formation of unstable substances.

#### Chapter 3.3 <u>Marking</u>

# 3.3.1 Legal Requirements

- 3.3.1.1 The marking requirements are stipulated in sections 10 to 12 of Schedule 6 of Cap. 295G which are replicated below:
  - 10. The outer surface of an outermost S2DG packaging must be legibly marked with all of the following information—
    - (a) the UN number of each type of S2DG contained in the S2DG packaging and, in the case of Class 3A S2DG, the HK number;
    - (b) the proper shipping name or true name of each type of S2DG contained in the S2DG packaging, in either English or Chinese, as specified in the code of practice.
  - 11. The information specified in section 10 of this Schedule must be marked in such a manner that the information is clearly identifiable despite any exposure to open air and water.
  - 12. Section 10 of this Schedule does not apply to an outermost S2DG packaging if—
    - (a) the outermost S2DG packaging is transparent; and
    - (b) the S2DG packaging immediately inside the outermost S2DG packaging is—
      - (i) marked in compliance with section 10 of this Schedule; and
      - (ii) visible from outside.

#### 3.3.2 General Application

3.3.2.1 This chapter provides standards and guidelines on the marking of DG as required in Schedule 6 of Cap. 295G. The UN number(s) / HK number(s) and the proper shipping name(s) of different DG are provided at column 1 and column 2 of the DG List respectively.

- 3.3.3 Marking Requirements
- 3.3.3.1 Contents of Marks
- 3.3.3.1.1 The marking on a DG package shall be comprised of the following information:
  - (a) For Class 3A DG, the HK number (i.e. H301) and the name of the DG (i.e. proper shipping name or true name) in either English or Chinese; or
  - (b) For other DG, the corresponding UN number (i.e. the 4-digit number specified in column 1 of the DG List and preceded by the letter "UN") and the name of the DG (i.e. proper shipping name or true name) in either English or Chinese.
- 3.3.3.1.2 If multiple types of DG are packed in the same packaging, the information of each type of DG shall be displayed, except for duplicate UN number / HK number or name.
- 3.3.3.1.3 In marking the name of the DG, the following shall be observed:
  - (a) Proper Shipping Name (PSN) refers to the description of a DG in CAPITAL letters (plus any numbers, Greek letters, "sec", "tert", and the letters m, n, o, p, which form an integral part of the name) as stated in column 2 of the DG List. An alternative PSN may be shown in brackets following the main PSN (e.g., UN 1982 TETRAFLUOROMETHANE (also known as REFRIGERANT GAS R14)). In this case, marking either the main or alternative PSN is acceptable.
    - e.g. UN 1982 TETRAFLUOROMETHANE or UN 1982 REFRIGERANT GAS R14;
  - (b) Whenever the PSN in column 2 of the DG List is a combination of several distinct names separated by "or" (e.g. UN 1381 PHOSPHORUS, WHITE or YELLOW, DRY or UNDER WATER or IN SOLUTION), it means that this entry may consist of more than one substance. In this situation, only the most

appropriate name, which the DG actually is, shall be marked.

e.g. marking of the most appropriate name among:
UN 1381 PHOSPHORUS, WHITE, DRY
UN 1381 PHOSPHORUS, WHITE, UNDER WATER
UN 1381 PHOSPHORUS, WHITE, IN SOLUTION
UN 1381 PHOSPHORUS, YELLOW, DRY
UN 1381 PHOSPHORUS, YELLOW, UNDER WATER
UN 1381 PHOSPHORUS, YELLOW, IN SOLUTION;

Another example: UN 2793 FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS marking of the most appropriate name among:

UN 2793 FERROUS METAL BORINGS UN 2793 FERROUS METAL SHAVINGS UN 2793 FERROUS METAL TURNINGS UN 2793 FERROUS METAL CUTTINGS;

(c) Apart from PSN, marking of "true name" of a DG is also acceptable. "True name" can be a recognised chemical or other name currently used in scientific and technical handbooks, journals and texts or a name commonly used and understood by the trade and public having regard to the usage of the DG. Examples of "true name" were tabulated below:

Proper Shipping Name	UN number	True Name
HYPOCHLORITE	UN 1791	BLEACH
SOLUTION		
PAINT RELATED	UN 3066	THINNER
MATERIAL		
SODIUM HYDROXIDE	UN 1824	DRAIN
SOLUTION		CLEANER
SULPHURIC ACID	UN 1830	DRAIN
		CLEANER

# 3.3.3.2 Display of Marks

#### 3.3.3.2.1 All marks shall:

- (a) be readily visible and legible from the outside;
- (b) be clearly identifiable despite any exposure to open air and water;
- (c) be displayed on a background of contrasting colour on the outer surface of the packaging;
- (d) be displayed in an upright position or a flat position;
- (e) be so placed on the packaging that they are not covered or obscured by any part or attachment to the packaging or any other label or mark; and
- (f) not be located with other labels or marks that could substantially reduce their effectiveness.
- 3.3.3.2.2 All marks shall be displayed at the outer surface of the outermost packaging, unless the outermost packaging is transparent and the marks are displayed at the packaging immediately inside and fulfilling 3.3.3.2.1 above.

# 3.3.3.3 Specifications of Marks

3.3.3.3.1 The letters / characters of the marks (i.e. UN number, HK number and the name of the DG) in respect of different package sizes shall be at least of the following height:

Type of Package	Size of the Package	Min. Height of the
		<u>Letter / Character</u>
Pressure receptacles	More than 60L	12 mm
/ cylinders	60L or less	6 mm
(water capacity)	5L or less	appropriate size
		which is visible and
		legible
Packages other than	More than 30L/30	12 mm
pressure receptacles	kg	
/ cylinders	30L / 30 kg or less	6 mm
(capacity / net mass)	5L/5 kg or less	appropriate size
		which is visible and
		legible

#### Chapter 3.4 <u>Labelling</u>

### 3.4.1 Legal Requirements

3.4.1.1 The requirements of how to display a DG label and the size of a DG label are stipulated in sections 14, 17, 20, 21, 22 and 23 of Schedule 6 of Cap. 295G which are replicated below:

#### 14. The label must—

- (a) be properly attached or affixed to the outer surface of the S2DG packaging in an upright position or a flat position;
- (b) be displayed on a background of contrasting colour on the outer surface of the packaging or, if a background of contrasting colour cannot be provided, have a dotted or solid outer boundary line; and
- (c) be clearly identifiable despite any exposure to open air and water.
- 17. Sections 13, 15 and 16 of this Schedule do not apply to an outermost S2DG packaging if—
  - (a) the outermost S2DG packaging is transparent; and
  - (b) the S2DG packaging immediately inside the outermost S2DG packaging is—
    - (i) labelled in compliance with section 13, 15 or 16 (as may be appropriate) of this Schedule; and
    - (ii) visible from outside.
- 20. A label must be displayed in an upright position or a flat position.

#### 21. A label—

- (a) must be square-shaped, with the minimum length of each side measuring 100 mm (minimum dimensions); and
- (b) if it is not feasible to display a label of the minimum dimensions due to the size or shape of the S2DG packaging—must be of reasonable dimensions that are, having regard to the size or shape of the packaging, appropriate for the packaging and must remain clearly visible and legible.

- 22. If no specific dimensions are indicated for a feature of a label in this Division or in the relevant Figure in Division 2 of this Part, the feature must be in the appropriate scale as shown in the Figure. If a label is of dimensions different from the minimum dimensions, the dimensions of every feature in the label must be adjusted proportionally.
- 23. The correct textual description in the middle of the label of the S2DG as specified in the code of practice is optional.
- 3.4.1.2 The requirements of which DG labels to be displayed are stipulated in sections 13, 15, 16, 18 and 19 of Schedule 6 of Cap. 295G with the form of DG labels prescribed at Division 2 of Part 3 of the Schedule  $6.^{31}$

<sup>&</sup>lt;sup>31</sup> The prescribed DG labels stipulated in Division 2 of Part 3 of Schedule 6 of Cap. 295G shall prevail in the event of any conflict between the prescribed DG labels and the specimen labels in 3.4.3.4. For avoidance of doubt, it is clarified that no DG label is required for Class 9A DG under Cap. 295G. The relevant sections in Schedule 6 for which labels to be displayed are replicated below:

<sup>13.</sup> For S2DG contained in an S2DG packaging, the outer surface of the outermost S2DG packaging must bear a label that is in the form of the following Figure and meets the specifications specified in Division 3 of this Part—

for Class 2.1 S2DG—Figure No. 1a or 1b;

for Class 2.2 S2DG—Figure No. 2a or 2b;

for Class 2.3 S2DG—Figure No. 3; (c)

for Class 3 S2DG or Class 3A S2DG—Figure No. 4a or 4b; (d)

for Class 4.1 S2DG—Figure No. 5; (e)

for Class 4.2 S2DG—Figure No. 6; *(f)* 

for Class 4.3 S2DG—Figure No. 7a or 7b; for Class 5.1 S2DG—Figure No. 8; (g)

<sup>(</sup>h)

for Class 5.2 S2DG—Figure No. 9a or 9b; (i)

for Class 6.1 S2DG—Figure No. 10; (j)

for Class 8 S2DG—Figure No. 11; (k)

for Class 9 S2DG—Figure No. 12.

<sup>15.</sup> If subsidiary hazard is specified for 1 type of S2DG by way of only one number, the number specified for the subsidiary hazard is regarded as the class number of the S2DG, and the outer surface of the outermost S2DG packaging must also bear the label that conforms to the relevant Figure of that class number under section 13 of this Schedule.

<sup>16.</sup> If subsidiary hazard is specified for 1 type of S2DG by way of more than one number, the numbers specified for the subsidiary hazard are regarded as the class numbers of the S2DG, and the outer surface of the outermost S2DG packaging must also bear all the labels that conform to the relevant Figures of those class numbers under section 13 of this Schedule.

<sup>18.</sup> Subject to section 19 of this Schedule, if 2 or more types of S2DG are packed in the same outermost S2DG packaging, the outer surface of the outermost S2DG packaging must bear the labels in relation to each type of the S2DG in compliance with section 13, 15 or 16 (as may be appropriate) of this Schedule.

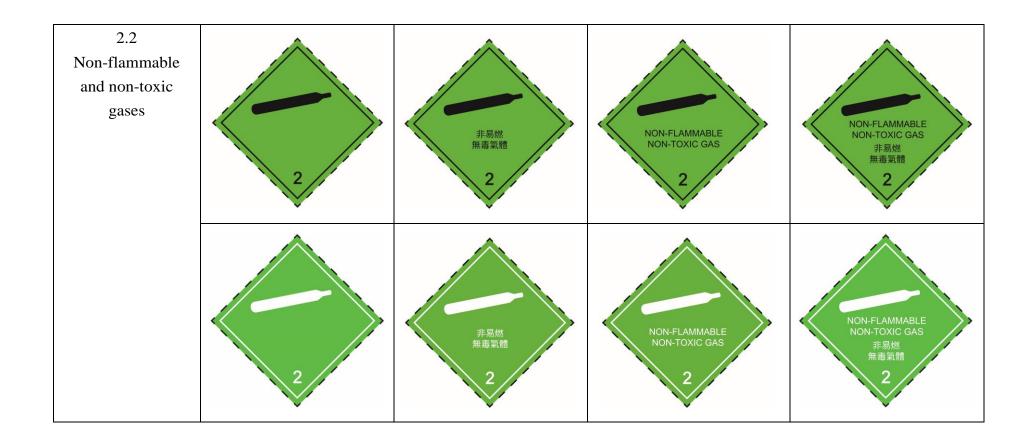
<sup>19.</sup> If 2 or more types of S2DG are packed in the same outermost S2DG packaging and the application of sections 13, 15, 16 and 18 of this Schedule lead to any overlapping of the class numbers, the outer surface of the outermost S2DG packaging must only bear the labels for different class numbers among those types of S2DG.

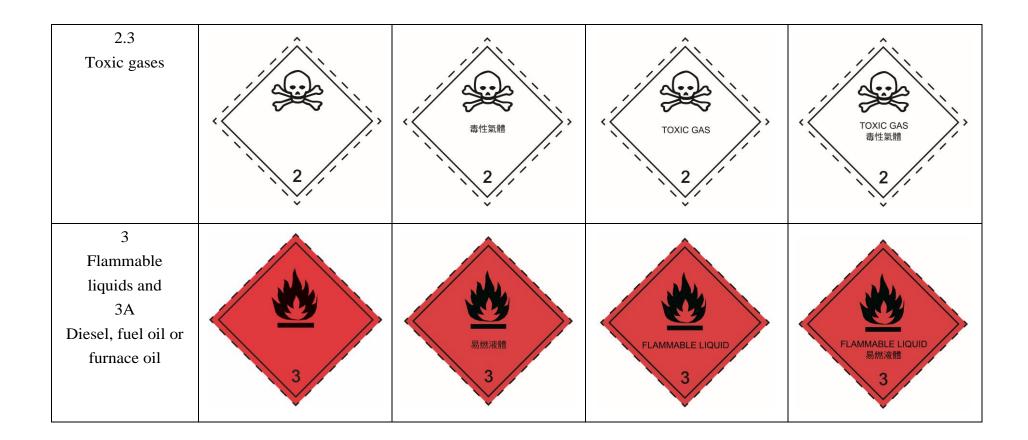
- 3.4.2 General Application
- 3.4.2.1 This chapter provides standards and guidelines on the labelling of DG as required in Schedule 6 of Cap. 295G.
- 3.4.3 Labelling Requirements
- 3.4.3.1 Selection of DG Labels
- 3.4.3.1.1 DG label(s) corresponding to the class and all subsidiary hazard(s), if any, specified in column 3 and column 4 of the DG List respectively for DG inside a packaging shall be affixed to the DG package.
- 3.4.3.1.2 If multiple types of DG are packed in the same packaging, the DG labels for the class and all subsidiary hazard(s), if any, of each type of DG shall be displayed, except for duplicate label(s), e.g. the DG concerned are of the same class or bearing the same subsidiary hazard(s).
- 3.4.3.2 Display of DG Labels
- 3.4.3.2.1 In order to properly display the labels, each label shall:
  - (a) be readily visible from outside;
  - (b) be clearly identifiable despite any exposure to open air and water;
  - (c) be displayed on a background of contrasting colour on the outer surface of the packaging or, if a background of contrasting colour cannot be provided, have a dotted or solid outer boundary line;
  - (d) be displayed in an upright position or a flat position;
  - (e) be so placed on the packaging that they are not covered or obscured by any part or attachment to the packaging or any other label or mark; and
  - (f) not be located with other labels or marks that could substantially reduce their effectiveness.

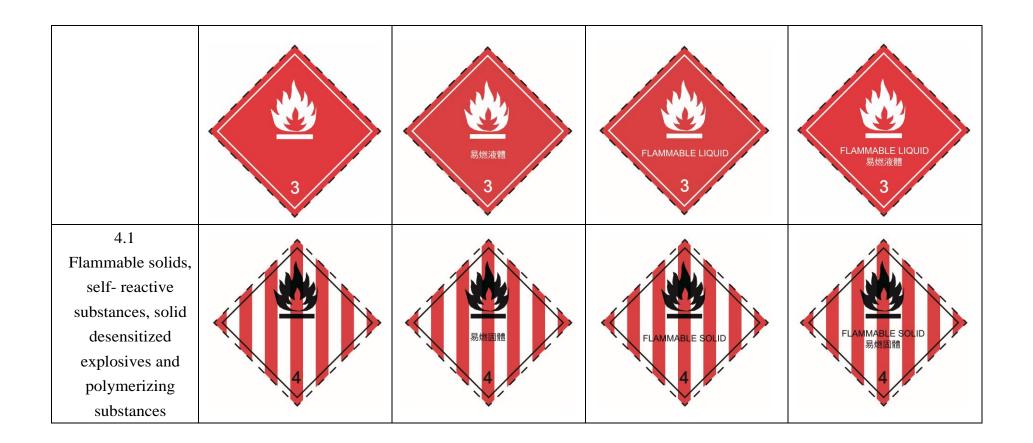
- 3.4.3.2.2 All labels shall be displayed at the outer surface of the outermost packaging, unless the outermost packaging is transparent and the labels are displayed at the packaging immediately inside and fulfilling 3.4.3.2.1 above.
- 3.4.3.2.3 Where a package is of such an irregular shape or small size that a label cannot be satisfactorily affixed, the labels can be attached to the packaging by a securely affixed tag or other suitable means.
- 3.4.3.3 Specifications and Form of DG Labels
- 3.4.3.3.1 Each label shall be square-shaped, with the minimum length of each side measuring 100 mm (minimum dimensions). If it is not feasible to display a label of the minimum dimensions due to the size and shape of the packaging, it shall be of reasonable dimensions that are, having regard to the size or shape of the packaging, appropriate for the packaging and remain clearly visible and legible. If a label is of dimensions different from the minimum dimensions, the dimensions of every feature in the label shall be adjusted proportionally.
- 3.4.3.3.2 The form of labels, including the colour, symbols, numbers and general format, for different DG classes are stipulated in Part 3 of Schedule 6 of Cap. 295G and all features in the labels shall be of appropriate scale as shown unless specific dimensions are indicated. The form of labels shall be conformed to Cap. 295G or specimen labels with correct English and/or Chinese description indicating the hazard for various classes and subsidiary hazards of DG provided at 3.4.3.4.

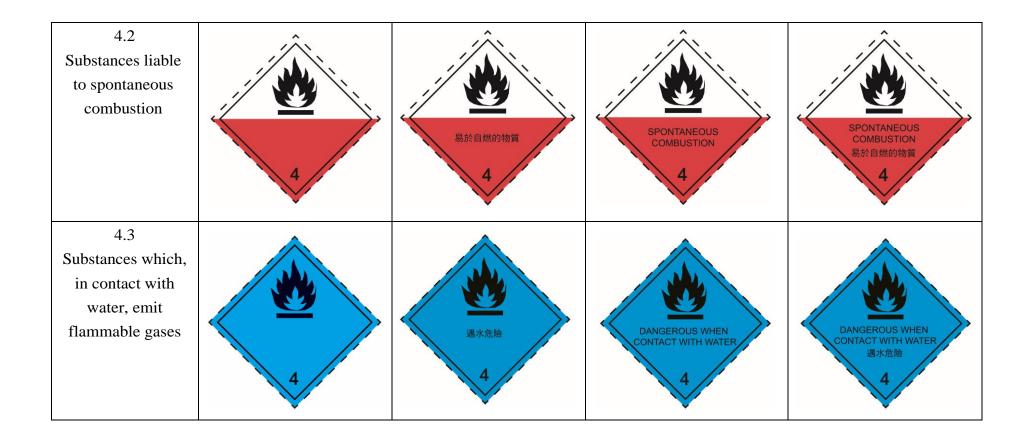
# 3.4.3.4 Specimen Labels

Class / Subsidiary	Labels in	Specimen labels		
Hazard	Schedule 6	with Chinese description	with English description	with English and Chinese
	of Cap. 295G			description
2.1 Flammable gases	2	易燃氣體	FLAMMABLE GAS  2	FLAMMABLE GAS 易燃氣體 2
	2	易燃氣體	FLAMMABLE GAS 2	FLAMMABLE GAS 易燃氣體 2

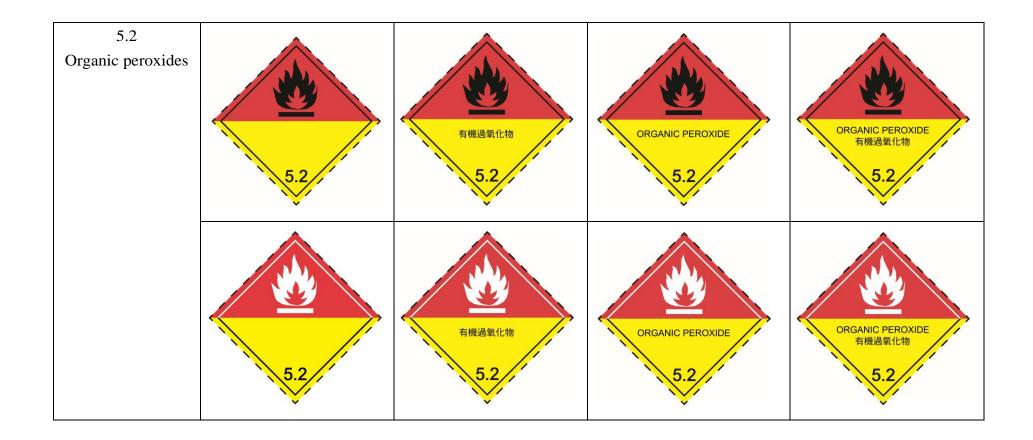


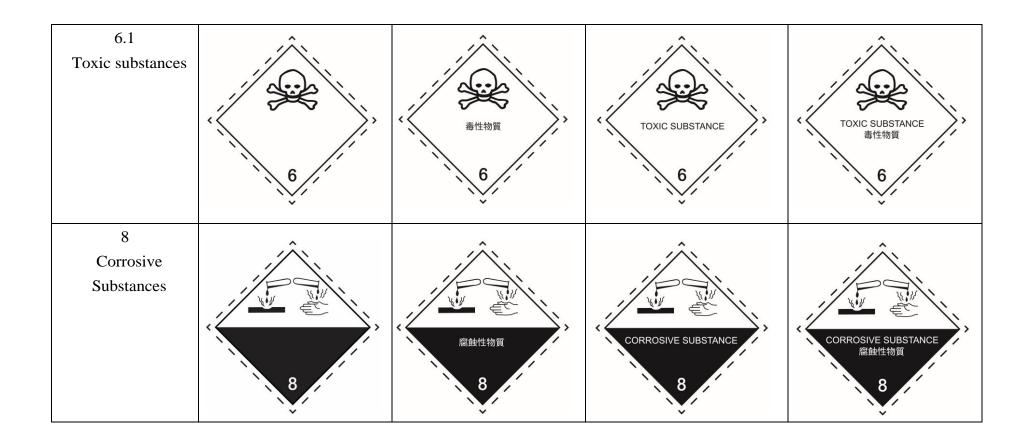


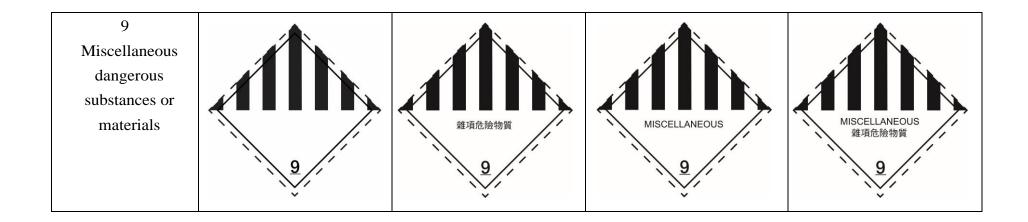












# Part IV PACKING AND SPECIAL PACKING REQUIREMENTS FOR PRESSURE RECEPTACLE CONTAINING CLASS 2 DANGEROUS GOODS

#### Chapter 4.1 <u>Packing for Pressure Receptacle</u>

## 4.1.1 Background

- 4.1.1.1 Pressure receptacles containing Class 2 DG are required to comply with the requirements for packing, marking and labelling stipulated in section 142 of Cap. 295G as well as the special packing requirements stipulated in section 145 of Cap. 295G. This Part provides practice guidance to facilitate the compliance of packing requirements, including the filling ratio requirements, and special packing requirements for pressure receptacles containing Class 2 DG.
- 4.1.1.2 Apart from above, it is reminded that the owner of the pressure receptacle(s) shall keep records of the testing and inspection as long as they are in use in Hong Kong pursuant to section 146 of Cap. 295G.
- 4.1.2 Legal Requirements
- 4.1.2.1 Pursuant to section 142(1) of Cap. 295G:

A person must not store or convey, or cause or permit to be stored or conveyed, S2DG unless the packing, marking and labelling requirements specified in Schedule 6 are complied with in relation to the S2DG.

#### 4.1.2.2 Pursuant to section 142(3) of Cap. 295G:

A person who contravenes subsection (1) commits an offence and is liable on conviction to a fine at level 6 and to imprisonment for 6 months.

# 4.1.3 General Application

4.1.3.1 This chapter provides the packing requirements of pressure receptacle for containing Class 2 DG for the purpose of section 142(1) of Cap. 295G. This chapter is not applicable to DG in consumer packs and DG contained in receptacle(s) forming part of machinery pursuant to section 140 of Cap. 295G.

#### 4.1.4 Packing Requirements

- 4.1.4.1 Basic Packing Instructions (BP)
- 4.1.4.1.1 The appropriate BP for the specific DG provided at column 7 of the DG List shall be met. Details of BP with SP are provided at Appendix 5 of the Code.

#### 4.1.4.2 Construction and Design

- 4.1.4.2.1 Pressure receptacle shall be constructed and closed so as to prevent any loss of contents or leakage which might be caused under normal conditions of handling, including by vibration, or by changes in temperature, humidity or pressure.
- 4.1.4.2.2 Pressure receptacle and its ancillaries shall be designed, manufactured, tested and equipped in such a way as to withstand all conditions, including fatigue, to which they will be subjected to during normal conditions of handling.
- 4.1.4.2.3 In no case shall the minimum wall thickness of the pressure receptacle be less than that specified in the standards the pressure receptacle which is manufactured in accordance with.
- 4.1.4.2.4 Contact between dissimilar metals shall be avoided as to prevent damage by galvanic action.

- 4.1.4.2.5 Pressure receptacle shall be made of the materials that are resistant to brittle fracture and to stress corrosion cracking.
- 4.1.4.2.6 The parts of pressure receptacle which are in direct contact with DG:
  - (a) shall not be affected or significantly weakened by those DG;
  - (b) shall not cause a dangerous effect (e.g. catalysing a reaction or reacting with the DG);
  - (c) shall not allow permeation of the DG that could constitute a danger under normal conditions of storage or conveyance; and
  - (d) where necessary to comply with (a) to (c) above, they shall be provided with a suitable inner coating or treatment.
- 4.1.4.2.7 Valves of the pressure receptacle shall be designed and constructed in such a way that they are inherently able to withstand damage without release of the contents or shall be protected from damage which could cause release of the contents of the pressure receptacle. The following methods shall be adopted during conveyance with the quantity exceeds the GEQ or aggregate EQ, as the case may be:
  - (a) Valves are placed inside the neck of the pressure receptacle and protected by a threaded plug or cap;
  - (b) Valves are protected by caps. Caps shall possess vent-holes of sufficient cross-sectional area to evacuate the gas if leakage occurs at the valves;
  - (c) Valves are protected by shrouds or guards; or
  - (d) Pressure receptacles are conveyed in frames (e.g. bundles) or an outer packaging.

#### 4.1.4.3 Packing of Class 2 DG

- 4.1.4.3.1 During the conveyance of DG with quantity exceeds the GEQ or aggregate EQ, as the case may be, in pressure receptacle with capacities of 1 L or less, they shall be packed in outer packagings constructed of suitable material of adequate strength and design in relation to the capacity of the packaging and its intended use and secured or cushioned so as to prevent significant movement within the outer packaging during conveyance.
- 4.1.4.3.2 When outer packagings are used, the pressure receptacle(s) shall be firmly secured therein.
- 4.1.4.3.3 The integrity of the packaging shall not be affected if ice is used as a coolant.
- 4.1.4.3.4 Multiple types of Class 2 DG shall not be packed together if they are determined as incompatible according to 2.3.3 of the Code, except for the following situations:
  - (a) during storage, each type of DG does not exceed their respective GEQ / IEQ / SEQ (as the case may be) and the aggregate quantity of DG does not exceed the aggregate EQ; or
  - (b) during conveyance, each type of DG does not exceed their respective GEQ and the aggregate quantity of DG does not exceed the aggregate EQ.

#### 4.1.4.3.5 Non-refillable pressure receptacle shall:

- (a) be conveyed in an outer packaging, such as a box, or crate, or in shrink-wrapped trays or stretch-wrapped trays if the quantity of DG exceeds the GEQ or aggregate EQ, as the case may be;
- (b) not be used for toxic gases with an  $LC_{50}$  less than or equal to 200 ml/m<sup>3</sup>; and
- (c) not be refilled.

- 4.1.4.3.6 Pressure receptacle, except for non-refillable pressure receptacle exempted from approval, shall only be filled with the gas or gas mixture as specified in the approval of pressure receptacle given by FSD.
- 4.1.4.3.7 Refillable pressure receptacle shall not be filled with a gas or gas mixture different from that previously contained unless the necessary operations for change of gas service have been performed.
- 4.1.4.4 Defects and Repairs
- 4.1.4.4.1 Filled pressure receptacle shall not be used to contain any gases:
  - (a) when not in good condition, e.g. leaking;
  - (b) when damaged to such an extent that the integrity of the pressure receptacle or its service equipment may be affected;
  - (c) unless the pressure receptacle and its service equipment has been examined and found to be in good working order; or
  - (d) unless the required certification, testing record, and filling marks are legible.
- 4.1.4.2 Repairs shall be consistent with the manufacture and testing requirements of the standards that the pressure receptacle are manufactured. Pressure receptacle, other than the jacket of closed cryogenic receptacles, shall not be repaired for reuse in following situations:
  - (a) weld cracks or other weld defects;
  - (b) cracks in walls; and
  - (c) leaks or defects in the material of the wall, head or bottom.
- 4.1.4.4.3 Non-refillable pressure receptacle shall not be repaired after being put into service.

#### Chapter 4.2 <u>Filling Ratio Requirements</u>

- 4.2.1 Legal Requirements
- 4.2.1.1 Pursuant to Paragraph 5 of Schedule 6 of Cap. 295G:

S2DG packing must be filled in conformity with the filling ratio specified in the code of practice, if applicable.

- 4.2.2 General Application
- 4.2.2.1 This chapter specifies filling requirements of Class 2 DG which is stored in pressure receptacle in the form of compressed gas, liquefied gas or dissolved gas.
- 4.2.2.2 Manufacture licence for Class 2 DG shall be obtained for the purpose of filling of pressure receptacle.
- 4.2.2.3 Prior to filling, the person who fills the pressure receptacle shall perform an inspection of the pressure receptacle and ensure that the pressure receptacle shall only be filled with the gas or gas mixture as specified in the approval of pressure receptacle given by FSD. Shut-off valves shall be closed after filling and remain closed during storage and conveyance.
- 4.2.3 Filling Requirements
- 4.2.3.1 Pressure receptacle shall be filled according to the filling requirements and provisions specified in the appropriate BP provided at column 7 of the DG List for the specific DG being filled and taking into account the lowest pressure rating of any component. Details of the BP are provided at Appendix 5 of the Code. Reactive gases and gas mixtures shall be filled to a pressure such that if complete decomposition of the gas occurs, the working pressure of the pressure receptacle shall not be exceeded.
- 4.2.3.2 It is reminded that the filling ratio, working pressure and test pressure, if applicable, shall be declared during the application for

approval of pressure receptacle.

- 4.2.3.3 Filling Ratio of Pressure Receptacle for Liquefied Gases and Dissolved Gases
- 4.2.3.3.1 The specific maximum filling ratio and minimum test pressure for different DG shall comply with the details as stipulated in the corresponding BP of the DG with details at Appendix 5.

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- 4.2.3.3.2 For high pressure liquefied gases, the minimum test pressures and maximum filling ratios other than those specified in the BP of the DG at Appendix 5 can be used, provided that
  - (a) for UN 2192 GERMANE and UN 2676 STIBINE, the filling ratio of the gas is limited which the pressure does not exceed two thirds of the test pressure of the pressure receptacle when complete decomposition occurs; or
  - (b) for other cases, the maximum filling ratio shall be such that the settled pressure at 65°C does not exceed the test pressure of the pressure receptacle.
- 4.2.3.3.3 For high pressure liquefied gases and gas mixtures for which relevant data are not available, the maximum filling ratio shall be determined as follows:

FR = 
$$8.5 \times 10^{-4} \times d_g \times P_h$$
  
where FR = maximum filling ratio  
dg = gas density (at 15°C, 1 bar) (in g/L)  
Ph = minimum test pressure (in bar)

where

If the density of the gas is unknown, the maximum filling ratio shall be determined as follows:

$$FR = \frac{P_h \times MM \times 10^{-3}}{R \times 338}$$

$$FR = \text{maximum filling ratio}$$

$$Ph = \text{minimum test pressure (in bar)}$$

$$MM = \text{molecular mass (in g/mol)}$$

=  $8.31451 \times 10^{-2} \text{ bar} \cdot \text{L/mol} \cdot \text{K} \text{ (gas constant)}$ 

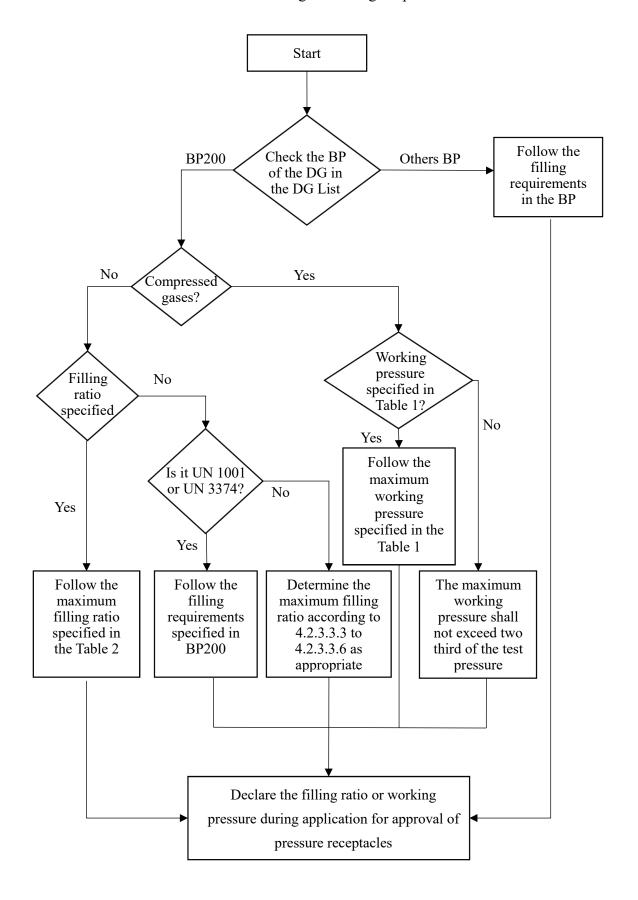
- 4.2.3.3.4 For low pressure liquefied gases, the maximum mass of contents per litre of water capacity (filling factor) shall equal 0.95 times the density of the liquid phase at 50°C; in addition, the liquid phase shall not completely fill the pressure receptacle at any temperature up to 60°C. The test pressure of the pressure receptacle shall be at least equal to the vapour pressure (absolute) of the liquid at 65°C, minus 100 kPa (1 bar).
- 4.2.3.3.5 For low pressure liquefied gases and gas mixtures for which relevant data are not available, the maximum filling ratio shall be determined as follows:

where FR = 
$$(0.0032 \times \text{bp} - 0.24) \times d_l$$
  
bp = boiling point (in kelvin)  
 $d_l$  = density of the liquid at boiling point (in kg/L)

4.2.3.3.6 For liquefied gases charged with compressed gases, both components – the liquefied gas and the compressed gas – have to be taken into consideration in the calculation of the internal pressure in the pressure receptacle. The maximum mass of contents per litre of water capacity shall not exceed 0.95 times the density of the liquid phase at 50°C; in addition, the liquid phase shall not completely fill the pressure receptacle at any temperature up to 60°C. When filled, the internal pressure at 65°C shall not exceed the test pressure of the pressure receptacle.

- 4.2.3.4 Filling Ratio of Pressure Receptacle for Compressed Gases
- 4.2.3.4.1 The maximum filling ratio, i.e. maximum working pressure, for compressed gases stored in pressure receptacle shall not exceed maximum filling ratio specified in Table 1 of BP 200 at Appendix 5 or two thirds of the test pressure if no filling ratio is specified. In no case shall the internal pressure at 65°C exceed the test pressure.

#### 4.2.3.5 Flowchart for Determining the Filling Requirements



#### Chapter 4.3 Special Packing Requirements for Pressure Receptacle

#### 4.3.1 Legal Requirements

#### 4.3.1.1 Pursuant to section 145 of Cap. 295G:

- (1) A person must not use a pressure receptacle for containing any Class 2 S2DG unless—
  - (a) the receptacle is of a type approved by the Director as being appropriate for containing the Class 2 S2DG;
  - *(b)* the receptacle is inspected or tested—
    - (i) in accordance with the standard specified in the code of practice;
    - (ii) at the frequency specified in the code of practice; and
    - (iii) by a person approved by the Director for the purposes of such inspection or testing; and
  - (c) the receptacle has passed the inspection or testing.
- (2) Subsection (1) does not apply to—
  - (a) a pressure receptacle (whether a refillable pressure receptacle or a non-refillable pressure receptacle) that contains Class 2 S2DG in limited packs; or
  - (b) a non-refillable pressure receptacle in respect of which all of the following conditions are met—
    - (i) the receptacle is manufactured in accordance with the standard specified in the code of practice;
    - (ii) either of the following—
      - (A) the receptacle contains Class 2 S2DG directly without any form of intermediate containment and its water capacity does not exceed 1 litre;
      - (B) the receptacle contains Class 2.1 S2DG or Class 2.2 S2DG directly without any form of intermediate containment the pressure of which does not exceed 35 bars and its water capacity does not exceed 25 litres; or
      - (C) the receptacle contains Class 2.1 S2DG or Class
         2.2 S2DG directly without any form of intermediate containment the pressure of which

exceeds 35 bars but does not exceed 250 bars and its water capacity does not exceed 5 litres.

#### 4.3.2 General Application

- 4.3.2.1 Special packing requirements for pressure receptacle include the requirement of obtaining approval from FSD as stipulated in section 145(1)(a) and the requirement of inspection or testing as stipulated in section 145(1)(b). This chapter provides:
  - (a) the standards, which a non-refillable pressure receptacle is manufactured in accordance with, for the purpose of satisfying the condition stipulated in section 145(2)(b)(i) for the exemption of the special packing requirements; and
  - (b) the standards and frequency for inspection or testing of pressure receptacle for the purpose of section 145(1)(b)(i)&(ii).
- 4.3.2.2 Application for approval of pressure receptacle(s) shall be submitted to the Dangerous Goods Enforcement Division of FSD for processing by making reference to relevant guideline published in FSD's website.
- 4.3.2.3 Special packing requirements do not apply to pressure receptacles which fulfil the condition stipulated in section 145(2)(a) or (b).
- 4.3.3 Standards for Manufacturing of Non-refillable Pressure Receptacle
- 4.3.3.1 For the purpose of satisfying the condition stipulated in section 145(2)(b)(i) for the exemption of the special packing requirements, the non-refillable pressure receptacle shall be manufactured in accordance with the following standards:
  - (a) GB 17268;
  - (b) ISO 11118; or
  - (c) DOT 39.
- 4.3.3.2 Apart from standards specified above, other national/international standards can also be submitted to FSD for consideration.

- 4.3.3.3 It is important to note that apart from fulfilling the condition in section 145(2)(b)(i), any one of the conditions stipulated in section 145(2)(b)(ii) shall also be met at the same time in order to exempt from the special packing requirements.
- 4.3.4 Inspection or Testing Standards and Frequency for Pressure Receptacle
- 4.3.4.1 Refillable pressure receptacle for Class 2 DG, other than cryogenic receptacle, shall be subject to periodic inspection and test in accordance with the following:
  - (a) Checking of the external conditions of the pressure receptacle and verification of the equipment and the external marks;
  - (b) Checking of the internal conditions of the pressure receptacle (e.g. internal inspection, verification of minimum wall thickness);
  - (c) Checking of the threads if there is evidence of corrosion or if the closure or other service equipment are removed;
  - (d) A hydraulic pressure test with the minimum test pressure and the maximum test period stipulated in corresponding Basic Packing Instruction (BP) in Appendix 5, if any;
  - (e) Verification of the characteristics of the material by suitable test, if necessary; and
  - (f) Checking of service equipment if to be reintroduced into service.
  - (g) A leakproofness test of bundles of cylinders after reassembly.

(NOTE 1: The hydraulic pressure test may be replaced by a test using a gas, where such an operation does not entail any danger.

NOTE 2: For seamless steel pressure receptacle, the checking stated at (b) and the hydraulic pressure test stated at (d) above may be replaced by a procedure conforming to EN ISO 16148:2016 "Gas cylinders – Refillable seamless steel gas cylinders and tubes – Acoustic emission examination (AT) and follow-up ultrasonic examination (UT) for periodic inspection and testing".

NOTE 3: The checking stated at (b) and the hydraulic pressure test stated at (d) above may be replaced by ultrasonic examination carried

out in accordance with EN 1802:2002 for seamless aluminium alloy gas pressure receptacle and in accordance with EN 1968:2002 + A1:2005 for seamless steel gas pressure receptacle.)

NOTE 4: For bundles of cylinders the hydraulic test specified in (d) and (e) above shall be carried out on the cylinder shells and on the manifold.

- 4.3.4.2 Pressure receptacle for containing UN 1001 ACETYLENE, DISSOLVED and UN 3374 ACETYLENE, SOLVENT FREE shall only be inspected and tested in accordance with (a), (c) and (f) above in addition to the checking of the condition of the porous material (e.g. cracks, top clearance, loosening, settlement).
- 4.3.4.3 For Class 2 refrigerated liquefied gases, closed cryogenic receptacle shall be subject to periodic inspections and tests in accordance with BP203 in Appendix 5.
- 4.3.4.4 If the requirements stated above could not be met, as an alternative, the pressure receptacle shall undergo prescribed inspection and testing as required in the corresponding pressure receptacle design standard as listed below subject to scrutiny by FSD. Details of the inspection and testing shall be clearly stated at the time of application for approval of pressure receptacle.
  - (a) GB Standard;
  - (b) DOT Standard;
  - (c) ISO Standard;
  - (d) AS Standard;
  - (e) BS Standard; or
  - (f) Any other national/international standards.

The details of inspection and testing approved by FSD during the approval of pressure receptacle shall be strictly followed. In case no specific testing frequency is specified in the standard, testing frequency stated in corresponding BP in Appendix 5 shall be followed.

#### Part V <u>DECOMMISSIONING OF TANK</u>

#### Chapter 5.1 <u>Decommissioning of Tank</u>

#### 5.1.1 Legal Requirements

#### 5.1.1.1 Pursuant to section 113(1) of Cap. 295G:

If a tank has been used for the storage of S2DG but is no longer so used, the person who owns or possesses the tank must—

- (a) take necessary steps to decommission the tank; and
- (b) inform the Director on completion of the decommissioning.

#### 5.1.1.2 Pursuant to section 113(3) of Cap. 295G:

A person who without reasonable excuse contravenes subsection (1) commits an offence and is liable on conviction to a fine at level 4 and to imprisonment for 2 months.

#### 5.1.2 General Application

- 5.1.2.1 This chapter provides a practical guidance on the necessary steps to decommission a tank that has been used for the storage of DG but is no longer so used, for example, cessation of DG licence, for the purpose of section 113 of Cap. 295G. The practical guidance applies to tank that has been used for the storage of DG, whether it is licensed/approved by FSD to store DG or not. For tank under repairment or maintenance that will be reused soon after, decommissioning is not required. Aspects related to environmental and waste disposal, occupational safety and health, structural and industrial safety, construction and demolition shall be referenced to other relevant ordinances and regulations.
- 5.1.2.2 Tank previously used for the storage of DG may pose significant hazards to the surroundings due to the DG residues or vapour inside, e.g. high pressure, flammable vapour or toxic gas. For the sake of public safety, the unused tank shall be properly decommissioned as soon as practicable in order to remove or eliminate the hazards.

5.1.2.3 During the whole decommissioning process, proprietors / employers shall make necessary arrangements to ensure the occupational safety and health of employees in the handling of chemicals in accordance with the Factories and Industrial Undertakings Ordinance (Cap. 59) and the Occupational Safety and Health Ordinance (Cap. 509) and their subsidiary legislation. If the decommissioning works involve any entry into or working in the tank as a confined space, or carrying out hot work in or to the tank, the relevant occupational safety and health legislation and publications issued by the Labour Department shall also be observed.

#### 5.1.3 Planning and Important Notes

- 5.1.3.1 Prior to the commencement of any decommissioning works, sufficient planning is needed to identify the hazards and decide a proper mode and safe method of decommissioning. The plan shall also be reviewed and revised from time to time and shall take, including but not limited to, the following factors into consideration:
  - (a) the types of the DG and/or hazardous gas/vapour involved;
  - (b) the method used to treat the DG and/or hazardous gas/vapour;
  - (c) the mode of decommissioning the tank as stipulated in 5.1.3.1.1;
  - (d) the hazards arisen from decommissioning works, e.g. treatment of DG, dismantling, cutting, lifting the tank;
  - (e) the hazards associated with the integrity and stability of the tank; and
  - (f) the disposal of chemical waste.
- 5.1.3.1.1 In deciding the mode of decommissioning, the tank and associated pipework shall normally be removed from the site permanently. It is reminded that the removal work might be considered as a demolition under the Buildings Ordinance (Cap. 123). However, if the tank and associated pipework had to be left in situ due to any constraints or various reasons, e.g. structural safety concerns, appropriate steps shall be taken to make the tank permanently or temporarily safe having considered the possibility of future reinstatement of the tank. The three modes of decommissioning the tank are summarised below:

- (a) permanent decommission with the tank removed;
- (b) permanent decommission with the tank left in situ; and
- (c) temporary decommission with the tank left in situ.
- In case the tank is to be left in situ, it is important to note that the completion of the procedures in this Part will not exempt any obligation to obtain any necessary approval from the other government departments, e.g. Buildings Department, Environmental Protection Department, Lands Department, nor act as a waiver of any terms in any lease, licence or etc. granted by the Government for leaving the tank. For example, the Petrol Filling Station (PFS) operator may also need a consent from the Environmental Protection Department, Lands Department and the other relevant government departments in order to leave the tank in situ subsequent to the closure of the PFS.
- 5.1.3.1.3 It is important to note that any decommissioning works shall only be carried out by persons specialising in that type of works. Advice from the DG manufacturer/supplier and tank manufacturer/supplier shall be sought in order to clear all the DG and decommission the tank safely. In addition, all the tests conducted shall be properly recorded and submitted to FSD upon completion of decommissioning.
- 5.1.4 Necessary Steps for Decommissioning a Tank
- 5.1.4.1 Decommission of Oil Storage Installation in Oil Terminal
- 5.1.4.1.1 The steps stipulated in 5.1.4.2 to 5.1.4.4 are not applicable to the decommissioning of oil storage installation (OSI)<sup>32</sup> as defined in the Buildings Ordinance (Cap. 123), whether it is to be removed or left in situ, since the decommissioning of OSI is also regulated under the Buildings Ordinance (Cap. 123). Prior approval shall be sought from FSD in respect of the decommissioning methods on a case-by-case basis before the commencement of the decommissioning works. Reference could be made to API Standard 2610 3rd Edition (2018) or equivalent national or international standards. Moreover, it is

<sup>&</sup>lt;sup>32</sup> Pursuant to section 2 of Cap. 123:

<sup>&</sup>quot;oil storage installation" means any tank having a capacity of not less than 110 000 litres, or a group of tanks any one of which is a tank having a capacity of not less than 110 000 litres, constructed above ground level for the purpose of storing petroleum products.

important to note that FSD shall still be informed upon completion of the decommissioning as stipulated in 5.1.5.

- 5.1.4.2 Permanent Decommission with the Tank Removed
- 5.1.4.2.1 The tank and the associated pipework shall first be rendered safe in the following aspects before any removal works to be conducted:
- 5.1.4.2.1.1 All the remaining DG inside the tank and the associated pipework shall first be removed. They shall be cleaned as far as reasonably practicable to remove the residual DG, or they shall be subject to a process in which their contents are neutralised, cured or chemically deactivated; and
- 5.1.4.2.1.2 The atmosphere inside the tank and the associated pipework shall be cleared of hazardous gas or vapour, e.g. flammable vapour. Appropriate degassing or inerting methods shall be used having considered the type of gas or vapour present and the removal works to be conducted, e.g. cutting, dismantling, lifting. If flammable gas or vapour is involved, Certification of Flammable Vapour Free shall be made by the person approved by FSD under section 105(2) of Cap. 295G.
- 5.1.4.2.2 Acceptable methods to render the tank and associated pipework safe include:
- 5.1.4.2.2.1 Hydrophobic foam fill for hydrocarbon fuel tank
  In order to render a hydrocarbon fuel tank safe, all the residual fuel is
  firstly removed as far as reasonably practicable, and then, hydrophobic
  foam having a designed compressive strength of 8 tonnes/m² is
  generated on-site and pumped directly into the tank and associated
  pipework via the fill pipe. It shall be noted that foam of this density
  is appropriate for rendering the tank safe for a period not exceeding six
  months;
- 5.1.4.2.2.2 Nitrogen foam fill for hydrocarbon fuel tank

  For a hydrocarbon fuel tank with all the residual fuel removed as far as reasonably practicable, high-expansion foam, produced in a generator

using nitrogen, water and a detergent foam compound, is then introduced into the tank and the associated pipework via the fill pipe. Unless the tank has been completely filled with nitrogen foam, the atmosphere inside the tank and the associated pipework shall be tested to ensure that the oxygen level has been reduced to below 5%. An opening to the tank for testing can be created by disconnecting the vent pipe at the tank top after the theoretical quantity of foam required to fill the tank has been added. Non-sparking tools or equipment shall be used for this operation. Removing the vent pipe in this way will also allow the foam to overflow more readily from the vent opening. The atmosphere will only remain safe for a limited period of time (e.g. 24 hours);

#### 5.1.4.2.2.3 Nitrogen gas purging for hydrocarbon fuel tank

For a hydrocarbon fuel tank with all the residual fuel removed as far as reasonably practicable, all the openings shall be sealed except those required for the inlet of nitrogen and the exhaust outlet (usually the vent pipe outlet, flame trap outlet). Nitrogen is introduced continuously into the tank at one point, causing the air and vapour to be purged from another opening, remote from the first opening, in a safe position. The nitrogen shall then be introduced, and the mixture leaving the tank shall be vented so that the tank remains at the atmospheric pressure throughout the entire operation. To ensure a constant pressure is maintained when carrying out this process, it is recommended that the nitrogen gas be introduced directly from an industrial gas supplier's tank-vehicle, which is fitted with the necessary pressure reducing valves and measuring equipment. The atmosphere in the tank and the associated pipework shall be tested and purging shall be continued until the oxygen level has been reduced to below 5%. On completion of the purging, the openings of the tank shall be sealed. The tank atmosphere will only remain safe for a limited period of time (e.g. 24 hours);

#### 5.1.4.2.2.4 Water fill for hydrocarbon fuel tank

For a hydrocarbon fuel tank with all the residual fuel removed as far as reasonably practicable, the suction pipe(s) shall be disconnected and the tank connecting points sealed. The tank shall then be filled completely with water, with care being taken to ensure that any water

or residual fuel does not overflow from the fill point. Surplus water or residual fuel shall, if necessary, be removed from the fill pipe to avoid an outflow when the vent pipe is disconnected from the tank. The vent pipe shall then be disconnected and the tank connection point and fill point sealed. Extreme care has to be taken when using a mechanical plant to avoid puncturing the tank and causing an escape of contaminated water. It is, therefore, important that periodic checks are made to ensure that no water has leaked out of the tank during the course of tank removal works. This method is not suitable if it is suspected that there is a leak in the tank;

#### 5.1.4.2.2.5 Dry ice (solid carbon dioxide) fill for hydrocarbon fuel tank

For a hydrocarbon fuel tank with all residual fuel removed as far as reasonably practicable, the vent pipes shall be removed, and all the openings sealed except the one required for insertion of dry ice. At least 2 kg of dry ice for each cubic metre of tank volume shall be allowed. The dry ice shall be used in pellet form or blocks broken down into pieces no larger than 3 cm in diameter. The tank shall be left for 12 hours and then the atmosphere tested, taking readings from the top, middle and bottom levels. When oxygen contents have been reduced to below 5% at all levels, the openings shall be sealed. The tank atmosphere will only remain safe for a limited period of time (e.g. 24 hours);

#### 5.1.4.2.2.6 Cleaning and degassing for hydrocarbon fuel tank

For a hydrocarbon fuel tank, all the residual fuel and sludge are removed and the tank surfaces are cleaned. Then, forced ventilation is applied until the tank can be certified flammable vapour free (gas free) and the openings shall be sealed. The tank atmosphere will only remain safe for a limited period of time (e.g. 24 hours); or

#### 5.1.4.2.2.7 Inert gas purging for Class 2 DG tank

A Class 2 DG tank shall be isolated and depressurised. It shall be purged with an inert gas at a suitable pressure for the tank design conditions and does not give rise to danger. Typical purge pressure shall be 0.5 bar or 10% of the design pressure, whichever is lower. The tank shall be pierced or cut to prevent any possible repair and pressurisation.

- 5.1.4.2.3 In case the methods provided in 5.1.4.2.2.1 to 5.1.4.2.2.7 are not adopted or not applicable, other methods could be adopted, provided that prior approval from FSD is obtained before commencement of the decommissioning works.
- 5.1.4.2.4 After rendering the tank and the associated pipework safe, they shall be removed properly and safely from the site, taken into consideration the period that the tank remains safe, the further precautions or testing required, the structure and configuration of the tank and the associated pipework, the hazards arising from the removal work, the transportation and disposal of the wreckage, etc. Precautions during the removal of a tank include:
- 5.1.4.2.4.1 If there is any possible flammable gas or vapour, lifting of a tank by chains or wire ropes shall not be used unless they are protected to prevent contact with the tank to reduce the risk of any sparks or sources of ignition;
- 5.1.4.2.4.2 A tank shall not be lifted by placing chains or ropes around the tank lid as it is possible to rip the neck from the tank;
- 5.1.4.2.4.3 All the openings to the tank, including any pipework remaining attached to it, shall be sealed and any holes caused by corrosion or damage during removal shall, as far as reasonably practicable, be sealed to prevent the loss of the inert atmosphere or liquid, if any;
- 5.1.4.2.4.4 A suitable pressure relief valve shall be fitted, if necessary;
- 5.1.4.2.4.5 The removal of pipework shall be carried out until it has been drained, flushed for any flammable atmosphere or residual DG and isolated from sources of DG and the site earth bonding arrangements; and
- 5.1.4.2.4.6 Inform the person who receives the tank of the previous use of the tank and its possible hazard.
- 5.1.4.2.5 For the purpose of ensuring that the necessary steps are properly taken in the course of decommissioning, relevant documents, test reports or

records against the adopted methods, including but not limited to those listed below, shall be properly maintained and submitted to FSD upon completion of decommissioning:

Method		Documents required
Hydrophobic foam fill	>	Record for compressive strength
		of hydrophobic foam
Nitrogen foam filling	>	Testing record for oxygen level
Nitrogen gas purging		
Dry ice (solid carbon dioxide)		
fill		
Cleaning and degassing	>	Certification of Flammable
		Vapour Free
Inert gas purging	>	Certification of purging
Others	>	Relevant documents, testing
		reports and records

#### 5.1.4.3 Permanent Decommission with the Tank Left in Situ

- 5.1.4.3.1 Considering that leaving the tank in situ may jeopardise the public and the relevant decommissioning works may be irreversible, tank to be left in situ permanently, e.g. due to structural constraint or without possible future reinstatement, shall obtain prior approval from FSD in respect of leaving the tank in situ and the methods of making the tank and associated pipework permanently safe.
- 5.1.4.3.2 In order to decommission the tank, it shall be made permanently safe having regard to the presence of possible hazards, including the hazards related to the integrity and stability of the tank. The tank and the associated pipework shall be rendered permanently safe in the following aspects:
- 5.1.4.3.2.1 All the remaining DG inside the tank and the associated pipework shall first be removed. They shall be cleaned as far as reasonably practicable to remove the residual DG or subject to a process in which its contents are neutralised, cured or chemically deactivated; and
- 5.1.4.3.2.2 The atmosphere inside the tank and the associated pipework shall be

permanently cleared of hazardous gas or vapour, e.g. flammable vapour. Appropriate degassing or inerting methods shall be used, having considered the type of gas or vapour presents, the integrity and stability of the tank and the possible contamination to the surrounding of an underground tank. If flammable gas or vapour is involved, Certification of Flammable Vapour Free shall be made by the person approved by FSD under section 105(2) of Cap. 295G.

- 5.1.4.3.3 Acceptable methods to render the tank and the associated pipework permanently safe include:
- 5.1.4.3.3.1 Filling with sand and cement slurry for hydrocarbon fuel tank

  For a hydrocarbon fuel tank, any one of the methods stated in
  5.1.4.2.2.1 to 5.1.4.2.2.6 above shall first be adopted. Pipework shall
  be disconnected and removed and the tank lid removed in preparation
  for the sand/cement slurry filling. The tank shall then be completely
  filled with a 20:1 sand/cement slurry having a 175 mm slump. This
  mixture will set to form a solid homogeneous mass fill. The slurry
  shall be vibrated during pouring to remove air pockets and ensure
  complete filling of the tank;

## 5.1.4.3.3.2 Hydrophobic foam fill for hydrocarbon fuel tank

All the residual fuel shall be removed as far as is practicable. The bottom of the tank shall be treated with a proprietary emulsifier if residual fuel is still left at the bottom of the tank. The foam is pumped into the tank and the associated pipework through a hose connected to the fill pipe. Filling shall continue until foam is discharged from the vent pipe, which shall then be removed and the vent connection to the tank sealed. Additional pressure, typically 0.5 bar shall then be applied to the foam. The tank fill pipe cap shall be replaced;

# 5.1.4.3.3.3 Filling with foamed concrete for hydrocarbon fuel tank For a hydrocarbon fuel tank, the tank shall first be emptied of residual fuel and completely filled with water. The water shall only be removed immediately prior to the addition of the foamed concrete to prevent the build-up of flammable concentrations of vapour from any residual fuel to render the tank and the associated pipework safe. Foamed concrete is a sand and cement slurry with added foam to give

a mixture with a final density not exceeding 1200 kg/m<sup>3</sup>. Foamed concrete is normally added through the open tank lid or pumped through pipework systems with particular care to ensure the tank is completed filled without voids; or

#### 5.1.4.3.3.4 Inert gas purging for Class 2 DG tank

A Class 2 DG tank shall be isolated and depressurised. It shall be purged with an inert gas at a suitable pressure for the tank design conditions and does not give rise to danger. Typical purge pressure shall be 0.5 bar or 10% of the design pressure, whichever is lower. The tank shall be pierced or cut to prevent any possible repair and pressurisation.

5.1.4.3.4 For the purpose of ensuring that the necessary steps are properly taken in the course of decommissioning, relevant documents, test reports or records against the adopted methods, including but not limited to those listed below, shall be properly maintained and submitted to FSD upon completion of decommissioning:

Method	Documents required
Filling with sand and cement slurry	> Relevant documents as
	mentioned in 5.1.4.2.5
	➤ Record for sand/cement slurry
	ratio
Filling with foamed concrete	> Record for foamed concrete
	density
Inert gas purging	> Certification of purging
Others	> Relevant documents, testing
	reports and records

#### 5.1.4.4 Temporary Decommission with the Tank Left in Situ

5.1.4.4.1 In case the tank is to be left in situ temporarily with possible future reinstatement (e.g. a PFS closed down and was handed over to a new PFS operator such that an underground petrol storage tank was left in situ for use by the new operator), prior approval from FSD shall first be sought in respect of leaving the tank in situ and the methods of making the tank and the associated pipework safe considering that

leaving the tank in situ may jeopardise the public and the relevant decommissioning works may be irreversible. Temporary decommission is not allowed for a period exceeding 12 months.

- 5.1.4.4.2 In order to decommission the tank, it shall be made safe, taking into consideration the possible hazards present, including the hazards relating to the integrity and stability of the tank and the possible future reinstatement. Adequate safety controls, e.g. regular monitoring, access control, shall be maintained to ensure the safety of the tank and to prevent unauthorised access or tampering to the tank. The tank and the associated pipework shall be rendered safe in the following aspects:
- 5.1.4.4.2.1 All the remaining DG inside the tank and the associated pipework shall first be removed. They shall be cleaned as far as reasonably practicable to remove the residual DG or subject to a process in which their contents are neutralised, cured or chemically deactivated; and
- 5.1.4.4.2.2 The atmosphere inside the tank and the associated pipework shall be permanently cleared of hazardous gas or vapour, e.g. flammable vapour. Appropriate degassing or inerting methods shall be used, having considered the type of gas or vapour presents, the integrity and stability of the tank and the possible future reinstatement. If flammable gas or vapour is involved, Certification of Flammable Vapour Free shall be made by the person approved by FSD under section 105(2) of Cap. 295G.
- 5.1.4.4.3 Acceptable methods to render the tank and the associated pipework safe include:
- 5.1.4.4.3.1 Water fill for hydrocarbon fuel tank

For a hydrocarbon fuel tank, all the residual fuel shall be removed from the tank and the associated pipework. All the pipework in the access chamber to the tank, except the vent pipe, shall be disconnected. The vent pipe shall remain connected so that displaced vapour could be dissipated safely when the tank is filled with water. The disconnected pipework in the access chamber shall be sealed and the pipework apertures on the tank lid shall be sealed with a blanking plug. The tank shall be filled with water to a level in the fill pipe that is marginally

higher than the top of the tank. Procedures shall be adopted to prevent water from being ejected from the top of the vent pipe. The fill pipe cap shall be replaced and securely locked, and control measures to the tank shall be adopted to prevent unauthorised access, vandalism or inadvertent use. The water content of the tank shall be inspected at intervals of not less than once every three months. Any reduction in the level shall be investigated, notified to FSD, and appropriate corrective action shall be taken;

#### 5.1.4.4.3.2 Hydrophobic foam fill for hydrocarbon fuel tank

For a hydrocarbon fuel tank, all the residual fuel shall be removed from the tank and the associated pipework. The tank shall be flushed out with a proprietary emulsifier to ensure, as far as is practicable, all the residual fuel is removed. The suction pipework shall be disconnected and the tank orifice(s) sealed. The vent pipe shall be disconnected in the tank lid access chamber, and a temporary ventilation outlet shall be fitted for applying the foam. The foam shall have a designed compressive strength of 15 tonnes/m². Control measures to the tank shall be adopted to prevent unauthorised access or vandalism or inadvertent use; or

#### 5.1.4.4.3.3 Inert gas purging for Class 2 DG tank

For a Class 2 DG tank, the tank shall be isolated and depressurised. It shall be purged with an inert gas at a suitable pressure for the tank design conditions and does not give rise to danger. Typical purge pressure shall be 0.5 bar or 10% of the design pressure, whichever is lower. The tank shall be maintained at a positive pressure of inert gas not exceeding 0.5 bar and sealed to prevent contamination and moisture ingress. Control measures to the tank shall be adopted to prevent unauthorised access, vandalism or inadvertent use and to ensure that over-pressurisation cannot occur.

5.1.4.4.4 For the purpose of ensuring that the necessary steps are properly taken in the course of decommissioning, relevant documents, test reports or record against the adopted methods, including but not limited to those listed below, shall be properly maintained and submitted to FSD upon completion of decommissioning:

<u>Method</u>	Documents required
Filling completely with water	> Safety control plan
	> Record for water level
Filling with hydrophobic	> Safety control plan
foam	> Record for compressive
	strength of hydrophobic foam
Inert gas purging	> Safety control plan
	> Record for positive pressure
	maintained in the tank
	<ul><li>Certification of purging</li></ul>
Others	> Relevant documents, testing
	reports and records

5.1.4.4.5 It is reminded that a new DG licence issued by FSD shall be obtained and sufficient testing or assessment shall be conducted before the tank is used again to contain any DG.

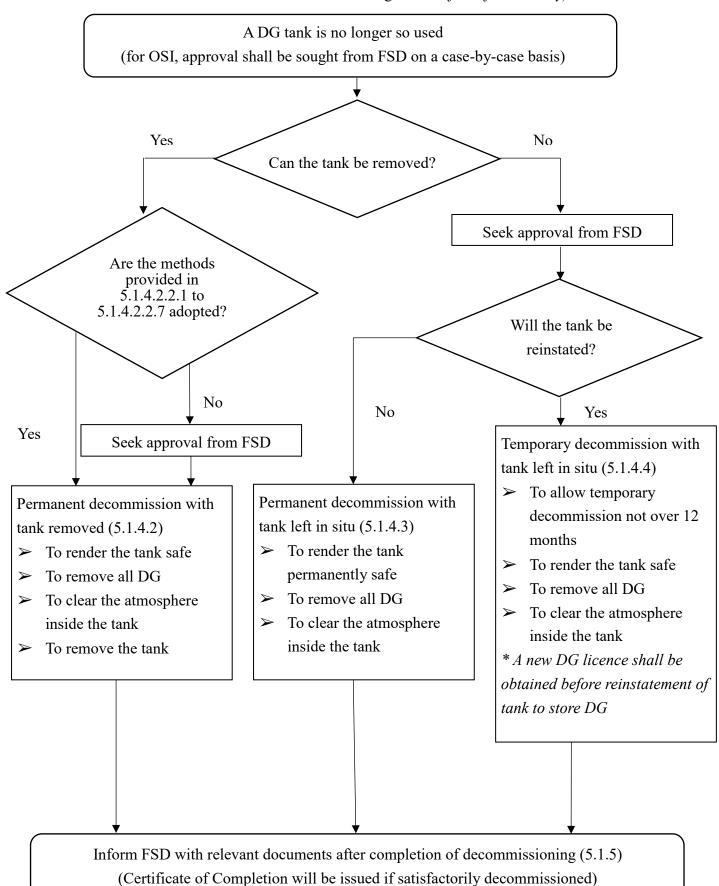
### 5.1.5 Informing FSD upon Completion

5.1.5.1 After completion of decommissioning, the person who owns or possesses the tank shall inform the Dangerous Goods Division of FSD in writing by fax, email or letter, as soon as practicable, with the following details:

- (a) date of completion;
- (b) decommissioning method(s) adopted; and
- (c) relevant documents against the adopted method as mentioned in 5.1.4.
- 5.1.5.2 Upon receipt of the report of completion, FSD will consider whether all necessary steps to decommission the tank have already been properly taken to remove or eliminate the hazard associated with the unused tank. For the purpose of section 113 of Cap. 295G, FSD will either:
  - (a) issue a certificate of completion of decommissioning once all

- necessary steps are satisfactorily completed; or
- (b) issue a letter requiring further necessary steps, remedial actions or further testing to be taken within a reasonable period if all necessary steps are not satisfactorily completed. The subject person shall comply with the letter within the period specified in it and inform FSD after compliance. If the letter is not complied with, the subject person may contravene section 113 of Cap. 295G.

#### 5.1.5.3 Flowchart for decommissioning of tank (for reference only)



# Part VI SAFETY PRECAUTIONS FOR CONVEYANCE OF CLASSES 2, 3 AND 3A DANGEROUS GOODS

- Chapter 6.1 <u>Precautions against Electrostatic Charges during Loading and Unloading</u>
- 6.1.1 Legal Requirements
- 6.1.1.1 Pursuant to section 135 of Cap. 295G:
  - (1) When Class 2.1 S2DG, Class 3 S2DG or Class 3A S2DG is being loaded onto or unloaded from a tank or tank-container on a licensed vehicle, adequate precaution (as specified in the code of practice for the purposes of this subsection) must be taken to prevent the accumulation of electrostatic charges.
  - (2) If subsection (1) is contravened, the person who controls or operates the loading or unloading operation commits an offence and is liable on conviction to a fine at level 4 and to imprisonment for 1 month.
- 6.1.2 General Application
- 6.1.2.1 This chapter specifies the precautions to prevent the accumulation of electrostatic charges before and during loading onto or unloading from a tank or tank-container on a licensed vehicle for the purposes of section 135 of Cap. 295G. It applies to tank fixed on a licensed vehicle or a tank-container carried by a licensed vehicle containing Classes 2.1, 3 or 3A DG.
- 6.1.2.2 The precautions specified in this part are intended to prevent the accumulation of electrostatic charge on a licensed vehicle. Aspects related to occupational safety and health shall be referenced to other relevant ordinances and regulations.
- 6.1.2.3 Electrostatic charge is a potential ignition source and may cause a fire or explosion in a flammable atmosphere. Electrostatic charge can be built up due to:

- (a) movement of the licensed vehicle during the journey;
- (b) movement of DG during loading and unloading; and
- (c) movement of workers involved in the loading and unloading process.
- 6.1.2.4 Generation of electrostatic charge varies with electrical conductivity<sup>33</sup> of DG in liquid form. The lower the electrical conductivity of the DG, the faster the generation, vice versa. Static dissipative additive (SDA) can be added to increase the electrical conductivity of DG in order to reduce the generation of electrostatic charges.

#### 6.1.3 Precautions

6.1.3.1 The licensed vehicle shall be equipped with an earth cable and adequately earthed by connecting the earth cable to an earth terminal before loading or unloading of DG. The electrical resistance of the earth cable shall be less than or equal to  $10\,\Omega$ . Apart from connecting the earth cable, earthing of the licensed vehicle during unloading can also be achieved by the contact of the anti-static tyres of the licensed vehicle and a static dissipative floor which the leakage resistance is  $1\,\mathrm{M}\Omega$  to  $100\,\mathrm{M}\Omega$  (conventional flooring material like bare concrete or steel grid are adequately conductive). In order to remain the effectiveness of static dissipation, such floor shall not be covered by insulation paint, rubber mats or plastic sheet, etc.

6.1.3.2 The tank or the tank-container, the chassis of the licensed vehicle, all metals or conducting components as well as all fixed equipment used to handle the DG shall be electrically bonded together to ensure electrical continuity. There shall be no loose conductive objects or spark promoters inside the tank or the tank-container.

6.1.3.3 The tyres of the licensed vehicle shall be of the anti-static type, the electrical resistance of which shall be in accordance with BS 2050 or equivalent, to prevent the accumulation of electrostatic charges during the journey.

Liquids are classified as high, medium or low conductivity in accordance with the criteria in IEC TS 60079-32-1:2013/A1:2017 or equivalent.

- During loading and unloading of DG in liquid form, a slow start with flow velocity of less than 1 m/s shall be employed until the fill pipe outlet is submerged to two pipe diameters. The flow rate of DG during loading and unloading shall be limited and splashing of DG shall be minimised in order to prevent the accumulation of electrostatic charges in accordance with IEC TS 60079-32-1:2013/A1:2017 or equivalent. Gravity unloading from the licensed vehicle is also acceptable provided that the DG is not of low electrical conductivity (the conductivity of DG can be increased by adding SDA).
- Anti-static / dissipative clothing and footwear shall be worn by workers involved in the loading and unloading process, if required in accordance with IEC TS 60079-32-1:2013/A1:2017 or equivalent. Anti-static footwear with electrical resistance complying ISO 20345: 2011, GB 21148-2020 or equivalent is also acceptable provided that the DG is not of low electrical conductivity (the conductivity of DG can be increased by adding SDA). The workers shall not remove or change the clothing in a flammable atmosphere and shall ensure adequate earthing of themselves before handling the loading or unloading process. Any accessories that may cause electrostatic discharge, e.g. metal having sharp point, shall not be carried by workers.

#### 6.1.4 Switch Loading<sup>34</sup>

6.1.4.1 It is important to note that switch loading, which is a process with a high risk of fire or explosion, shall not be conducted before the tank or tank-container is properly cleaned and degassed unless:

- (a) the DG is not of low electrical conductivity (the conductivity of DG can be increased by adding SDA);
- (b) the tank or tank-container is cleared of the residual DG previously conveyed;
- (c) bottom loading is employed to prevent splashing; and
- (d) loading velocity is limited to lower the generation of electrostatic charges.

According to NFPA 77, switch loading is the practice of loading a liquid having a high flashpoint and low conductivity (e.g. diesel) into a tank or the tank-container that previously contained a low flashpoint liquid (e.g. petrol).

# Appendix 1 – DG List: Classes 2, 3, 4, 5, 6.1, 8 & 9 DG

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	- CI	Subsidiary	C	SN	Packing (Appendix	5)	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP SP	LQ	MPS	2.3.3
1001	ACETYLENE, DISSOLVED	2.1	None		397	BP200	None	None	CR16, CR7
1002	AIR, COMPRESSED	2.2	None		398	BP200	0.12	None	
1003	AIR, REFRIGERATED LIQUID	2.2	5.1		None	BP203	None	None	CG19
1005	AMMONIA, ANHYDROUS	2.3	8		None	BP200	None	None	CG18, CR5, CR16, CR7
1006	ARGON, COMPRESSED	2.2	None		None	BP200	0.12	None	
1008	BORON TRIFLUORIDE	2.3	8		None	BP200	None	None	CR7
1009	BROMOTRIFLUOROMETHANE (also known as REFRIGERANT GAS R 13B1)	2.2	None		None	BP200	0.12	None	
1010	BUTADIENES, STABILIZED or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED	2.1	None	Containing more than 40% butadienes	None	BP200	None	None	CR7
1011	BUTANE	2.1	None		None	BP200	None	None	CR7
1012	BUTYLENE	2.1	None		None	BP200	None	None	CR7
1013	CARBON DIOXIDE	2.2	None		None	BP200	0.12	None	
1016	CARBON MONOXIDE, COMPRESSED	2.3	2.1		None	BP200	None	None	CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	1	(8)	(9)	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	Cl •0• /•	SN	Packing (Ap	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1017	CHLORINE	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
1018	CHLORODIFLUOROMETHANE (also known as REFRIGERANT GAS R 22)	2.2	None		None	BP200		0.12	None	
1020	CHLOROPENTAFLUOROETHA NE (also known as REFRIGERANT GAS R 115)	2.2	None		None	BP200		0.12	None	
1021	1-CHLORO-1,2,2,2- TETRAFLUOROETHANE (also known as REFRIGERANT GAS R 124)	2.2	None		None	BP200		0.12	None	
1022	CHLOROTRIFLUOROMETHAN E (also known as REFRIGERANT GAS R 13)	2.2	None		None	BP200		0.12	None	
1023	COAL GAS, COMPRESSED	2.3	2.1		None	BP200		None	None	CR7
1026	CYANOGEN	2.3	2.1		None	BP200		None	None	CR7
1027	CYCLOPROPANE	2.1	None		None	BP200		None	None	CR7
1028	DICHLORODIFLUOROMETHAN E (also known as REFRIGERANT GAS R 12)	2.2	None		None	BP200		0.12	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	G	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1029	DICHLOROFLUOROMETHANE (also known as REFRIGERANT GAS R 21)	2.2	None		None	BP200		0.12	None	
1030	1,1-DIFLUOROETHANE (also known as REFRIGERANT GAS R 152a)	2.1	None		None	BP200		None	None	CR7
1032	DIMETHYLAMINE, ANHYDROUS	2.1	None		None	BP200		None	None	CR5, CR7
1033	DIMETHYL ETHER	2.1	None		None	BP200		None	None	CR7
1035	ETHANE	2.1	None		None	BP200		None	None	CR7
1036	ETHYLAMINE	2.1	None		None	BP200		None	None	CR5, CR7
1037	ETHYL CHLORIDE	2.1	None		None	BP200		None	None	CR7
1038	ETHYLENE, REFRIGERATED LIQUID	2.1	None		None	BP203		None	None	CR7
1039	ETHYL METHYL ETHER	2.1	None		None	BP200		None	None	CR7
1040	ETHYLENE OXIDE, or ETHYLENE OXIDE WITH NITROGEN	2.3	2.1	Up to a total pressure of 1 MPa (10 bar) at 50°C	None	BP200		None	None	CR7
1041	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE	2.1	None	With more than 9% but not more than 87% ethylene oxide	None	BP200		None	None	CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '0' ('	SN	Packing (Ap	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1043	FERTILIZER AMMONIATING SOLUTION	2.2	None	With free ammonia	None	BP200		0.12	None	
1045	FLUORINE, COMPRESSED	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
1046	HELIUM, COMPRESSED	2.2	None		None	BP200		0.12	None	
1048	HYDROGEN BROMIDE, ANHYDROUS	2.3	8		None	BP200		None	None	CR7
1049	HYDROGEN, COMPRESSED	2.1	None		None	BP200		None	None	CR16, CR7
1050	HYDROGEN CHLORIDE, ANHYDROUS	2.3	8		None	BP200		None	None	CR7
1051	HYDROGEN CYANIDE, STABILIZED / PG I	6.1	3	Containing less than 3% water	None	BP209		None	None	
1052	HYDROGEN FLUORIDE, ANHYDROUS / PG I	8	6.1		None	BP209		None	None	CG1, CR6, CR19
1053	HYDROGEN SULPHIDE	2.3	2.1		None	BP200		None	None	CR7
1055	ISOBUTYLENE	2.1	None		None	BP200		None	None	CR7
1056	KRYPTON, COMPRESSED	2.2	None		None	BP200		0.12	None	
1057	LIGHTERS or LIGHTER REFILLS	2.1	None	Containing flammable gas. This item is pre-packed.	None	BP002		None	None	CR7
1058	LIQUEFIED GASES	2.2	None	Non-flammable, charged with nitrogen, carbon dioxide or air	None	BP200		0.12	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	(8)	<b>(9)</b>	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	G '0' ('	SN	Packing (Appendix 5	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP SP	LQ	MPS	2.3.3
	METHYLACETYLENE AND								
1060	PROPADIENE MIXTURE,	2.1	None		None	BP200	None	None	CR7
	STABILIZED								
1061	METHYLAMINE, ANHYDROUS	2.1	None		None	BP200	None	None	CR5, CR7
1062	METHYL BROMIDE	2.3	None	With not more than 2% chloropicrin	None	BP200	None	None	CR7
	METHYL CHLORIDE (also								
1063	known as REFRIGERANT GAS R	2.1	None		None	BP200	None	None	CR7
	40)								
1064	METHYL MERCAPTAN	2.3	2.1		None	BP200	None	None	CR7
1065	NEON, COMPRESSED	2.2	None		None	BP200	0.12	None	
1066	NITROGEN, COMPRESSED	2.2	None		None	BP200	0.12	None	
1067	DINITROGEN TETROXIDE (also known as NITROGEN DIOXIDE)	2.3	5.1, 8		None	BP200	None	None	CG19, CR7
1069	NITROSYL CHLORIDE	2.3	8		None	BP200	None	None	CR7
1070	NITROUS OXIDE	2.2	5.1		None	BP200	None	None	CG19
1071	OIL GAS, COMPRESSED	2.3	2.1		None	BP200	None	None	CR7
1072	OXYGEN, COMPRESSED	2.2	5.1		None	BP200	None	None	CG19
1073	OXYGEN, REFRIGERATED LIQUID	2.2	5.1		None	BP203	None	None	CG19
1076	PHOSGENE	2.3	8		None	BP200	None	None	CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •0• 4•	SN	Packing (Appendi	ix 5)	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP SI	LQ	MPS	2.3.3
1077	PROPYLENE	2.1	None		None	BP200	None	None	CR7
1078	REFRIGERANT GAS, N.O.S.	2.2	None		274	BP200	0.12	None	
1079	SULPHUR DIOXIDE	2.3	8		None	BP200	None	None	CR7
1080	SULPHUR HEXAFLUORIDE	2.2	None		None	BP200	0.12	None	
1081	TETRAFLUOROETHYLENE, STABILIZED	2.1	None		None	BP200	None	None	CR7
1082	TRIFLUOROCHLOROETHYLEN E, STABILIZED (also known as REFRIGERANT GAS R 1113)	2.3	2.1		None	BP200	None	None	CR7
1083	TRIMETHYLAMINE, ANHYDROUS	2.1	None		None	BP200	None	None	CR5, CR7
1085	VINYL BROMIDE, STABILIZED	2.1	None		None	BP200	None	None	CR7
1086	VINYL CHLORIDE, STABILIZED	2.1	None		None	BP200	None	None	CR7
1087	VINYL METHYL ETHER, STABILIZED	2.1	None		None	BP200	None	None	CR7
1088	ACETAL / PG II	3	None		None	BP001	1	None	
1089	ACETALDEHYDE / PG I	3	None		None	BP001	None	None	
1090	ACETONE / PG II	3	None		None	BP001	1	1	
1091	ACETONE OILS / PG II	3	None		None	BP001	1	1	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	Cl • p• . / •	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1092	ACROLEIN, STABILIZED / PG I	6.1	3		354	BP601		None	None	
1093	ACRYLONITRILE, STABILIZED / PG I	3	6.1		None	BP001		None	None	
1098	ALLYL ALCOHOL / PG I	6.1	3		354	BP602		None	None	
1099	ALLYL BROMIDE / PG I	3	6.1		None	BP001		None	None	CG10
1100	ALLYL CHLORIDE / PG I	3	6.1		None	BP001		None	None	CG10
1104	AMYL ACETATES / PG III	3	None		None	BP001		5	None	
1105	PENTANOLS / PG II	3	None		None	BP001		1	None	
1105	PENTANOLS / PG III	3	None		None	BP001		5	None	
1106	AMYLAMINE / PG II	3	8		None	BP001		1	None	CR5
1106	AMYLAMINE / PG III	3	8		None	BP001		5	None	CR5
1107	AMYL CHLORIDE / PG II	3	None		None	BP001		1	None	CG10
1108	1-PENTENE (also known as n- AMYLENE) / PG I	3	None		None	BP001		None	None	
1109	AMYL FORMATES / PG III	3	None		None	BP001		5	None	
11110	n-AMYL METHYL KETONE / PG III	3	None		None	BP001		5	None	
1111	AMYL MERCAPTAN / PG II	3	None		None	BP001		1	None	
1112	AMYL NITRATE / PG III	3	None		None	BP001		5	None	
1113	AMYL NITRITE / PG II	3	None		None	BP001		1	None	
1114	BENZENE / PG II	3	None		None	BP001		1	None	

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •0• 4•	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1120	BUTANOLS / PG II	3	None		None	BP001		1	None	
1120	BUTANOLS / PG III	3	None		None	BP001		5	None	
1123	BUTYL ACETATES / PG II	3	None		None	BP001		1	None	
1123	BUTYL ACETATES / PG III	3	None		None	BP001		5	None	
1125	n-BUTYLAMINE / PG II	3	8		None	BP001		1	None	CR5
1126	1-BROMOBUTANE / PG II	3	None		None	BP001		1	None	CG10
1127	CHLOROBUTANES / PG II	3	None		None	BP001		1	None	CG10
1128	n-BUTYL FORMATE / PG II	3	None		None	BP001		1	None	
1129	BUTYRALDEHYDE / PG II	3	None		None	BP001		1	None	
1130	CAMPHOR OIL / PG III	3	None		None	BP001		5	1	
1131	CARBON DISULPHIDE / PG I	3	6.1		None	BP001	SP31	None	None	
1133	ADHESIVES / PG I	3	None	Containing flammable liquid	None	BP001		0.5	None	
1133	ADHESIVES / PG II	3	None	Containing flammable liquid	None	BP001		5	1	
1133	ADHESIVES / PG III	3	None	Containing flammable liquid	None	BP001		5	1	
1134	CHLOROBENZENE / PG III	3	None		None	BP001		5	None	CG10
1135	ETHYLENE CHLOROHYDRIN / PG I	6.1	3		354	BP602		None	None	
11136	COAL TAR DISTILLATES, FLAMMABLE / PG II	3	None		None	BP001		1	None	
11136	COAL TAR DISTILLATES, FLAMMABLE / PG III	3	None		None	BP001		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	CROTONALDEHYDE or				324					
1143	CROTONALDEHYDE,	6.1	3		354	BP602		None	None	
	STABILIZED / PG I				334					
1144	CROTONYLENE / PG I	3	None		None	BP001		None	None	
1145	CYCLOHEXANE / PG II	3	None		None	BP001		1	None	
1146	CYCLOPENTANE / PG II	3	None		None	BP001		1	None	
1147	DECAHYDRONAPHTHALENE /	3	None		None	BP001		5	None	
1147	PG III	3	None		None	Druui		3	None	
1148	DIACETONE ALCOHOL / PG II	3	None		None	BP001		1	None	
1148	DIACETONE ALCOHOL / PG III	3	None		None	BP001		5	None	
1149	DIBUTYL ETHERS / PG III	3	None		None	BP001		5	None	
1150	1,2-DICHLOROETHYLENE / PG II	3	None		None	BP001		1	None	CG10
1152	DICHLOROPENTANES / PG III	3	None		None	BP001		5	None	CG10
1153	ETHYLENE GLYCOL DIETHYL ETHER / PG II	3	None		None	BP001		1	None	
1153	ETHYLENE GLYCOL DIETHYL ETHER / PG III	3	None		None	BP001		5	None	
1154	DIETHYLAMINE / PG II	3	8		None	BP001		1	None	CR5
11155	DIETHYL ETHER (also known as ETHYL ETHER) / PG I	3	None		None	BP001		None	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	G '0' ('	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1156	DIETHYL KETONE / PG II	3	None		None	BP001		1	None	
1157	DIISOBUTYL KETONE / PG III	3	None		None	BP001		5	None	
1158	DIISOPROPYLAMINE / PG II	3	8		None	BP001		1	None	CR5
1159	DIISOPROPYL ETHER / PG II	3	None		None	BP001		1	None	
1160	DIMETHYLAMINE, AQUEOUS SOLUTION / PG II	3	8		None	BP001		1	None	CG18, CR5
1161	DIMETHYL CARBONATE / PG II	3	None		None	BP001		1	None	
1162	DIMETHYLDICHLOROSILANE / PG II	3	8		None	BP010		None	None	
1163	DIMETHYLHYDRAZINE, UNSYMMETRICAL / PG I	6.1	3, 8		354	BP602		None	None	CG18, CR5, CR30
1164	DIMETHYL SULPHIDE / PG II	3	None		None	BP001		1	None	
1165	DIOXANE / PG II	3	None		None	BP001		1	None	
1166	DIOXOLANE / PG II	3	None		None	BP001		1	None	
1167	DIVINYL ETHER, STABILIZED / PG I	3	None		None	BP001		None	None	
1170	ETHANOL (also known as ETHYL ALCOHOL) or ETHANOL SOLUTION (also known as ETHYL ALCOHOL SOLUTION) / PG II	3	None	An aqueous solution containing not more than 24% alcohol by volume is not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP001		1	1	

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	<b>(8)</b>	<b>(9</b> )	(10)

UN	Proper Shipping Name /	Class	Subsidiary Hazard	Specifications	SN	Packing (Appendix 5)		1.0	1 CD C	Compatibility
No.	Packing Group (if any)				(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1170	ETHANOL (also known as ETHYL ALCOHOL) or ETHANOL SOLUTION (also known as ETHYL ALCOHOL SOLUTION) / PG III	3	None	An aqueous solution containing not more than 24% alcohol by volume is not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP001		5	1	
11171	ETHYLENE GLYCOL MONOETHYL ETHER / PG III	3	None		None	BP001		5	None	
	ETHYLENE GLYCOL MONOETHYL ETHER ACETATE / PG III	3	None		None	BP001		5	None	
1173	ETHYL ACETATE / PG II	3	None		None	BP001		1	1	
1175	ETHYLBENZENE / PG II	3	None		None	BP001		1	None	
1176	ETHYL BORATE / PG II	3	None		None	BP001		1	None	
1177	2-ETHYLBUTYL ACETATE / PG III	3	None		None	BP001		5	None	
1178	2-ETHYLBUTYRALDEHYDE / PG II	3	None		None	BP001		1	None	
1179	ETHYL BUTYL ETHER / PG II	3	None		None	BP001		1	None	
1180	ETHYL BUTYRATE / PG III	3	None		None	BP001		5	None	
1181	ETHYL CHLOROACETATE / PG II	6.1	3		None	BP001		0.1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1182	ETHYL CHLOROFORMATE / PG	G 6.1	3, 8		354	BP602		None	None	CG1, CR6,
1102	I	0.1	3, 6							CR19, CR30
1183	ETHYLDICHLOROSILANE / PG	4.3	3, 8		None	BP401	SP31	None	None	CG1, CR6,
1103	I	4.3	3, 6				51 51			CR19, CR30
1184	ETHYLENE DICHLORIDE / PG II	3	6.1		None	BP001		1	None	CG10
1185	ETHYLENEIMINE, STABILIZED	6.1	3		354	BP601		None	None	
1103	/ PG I	0.1	3		334	DI 001		TVOILE	Tione	
1188	ETHYLENE GLYCOL	3	None		None	BP001		5	None	
1100	MONOMETHYL ETHER / PG III	<i></i>	Trone		TVOIC	<b>D1</b> 001		3	TVOILE	
	ETHYLENE GLYCOL									
1189	MONOMETHYL ETHER	3	None		None	BP001		5	None	
	ACETATE / PG III									
1190	ETHYL FORMATE / PG II	3	None		None	BP001		1	None	
1191	OCTYL ALDEHYDES / PG III	3	None		None	BP001		5	None	
1192	ETHYL LACTATE / PG III	3	None		None	BP001		5	None	
	ETHYL METHYL KETONE (also									
1193	known as METHYL ETHYL	3	None		None	BP001		1	None	
	KETONE) / PG II									
1194	ETHYL NITRITE SOLUTION /	3	6.1		None	BP001		None	None	
1174	PG I	J	0.1		NOHE	Druui		None	None	
1195	ETHYL PROPIONATE / PG II	3	None		None	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •p• /•	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1196	ETHYLTRICHLOROSILANE / PG II	3	8		None	BP010		None	None	
1197	EXTRACTS, LIQUID / PG II	3	None	For flavour or aroma	None	BP001		5	1	
1197	EXTRACTS, LIQUID / PG III	3	None	For flavour or aroma	None	BP001		5	1	
1198	FORMALDEHYDE SOLUTION, FLAMMABLE / PG III	3	8		None	BP001		5	None	
1199	FURALDEHYDES / PG II	6.1	3		None	BP001		0.1	None	
1201	FUSEL OIL / PG II	3	None		None	BP001		1	None	
1201	FUSEL OIL / PG III	3	None		None	BP001		5	None	
1202	GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT / PG III	3	None		None	BP001		5	None	
1203	MOTOR SPIRIT or GASOLINE or PETROL / PG II	3	None		None	BP001		1	None	
1204	NITROGLYCERIN SOLUTION IN ALCOHOL / PG II	3	None	With not more than 1% nitroglycerin	None	BP001	SP5	1	None	
1206	HEPTANES / PG II	3	None		None	BP001		1	None	
1207	HEXALDEHYDE / PG III	3	None		None	BP001		5	None	
1208	HEXANES / PG II	3	None		None	BP001		1	None	
	PRINTING INK or PRINTING INK RELATED MATERIAL / PG I	3	None	Including printing ink thinning or reducing compound, flammable	163	BP001		0.5	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	PRINTING INK or PRINTING INK RELATED MATERIAL / PG II	3	None	Including printing ink thinning or reducing compound, flammable	163	BP001		5	None	
1210	PRINTING INK or PRINTING INK RELATED MATERIAL / PG III	3	None	Including printing ink thinning or reducing compound, flammable	163	BP001		5	None	
1212	ISOBUTANOL (also known as ISOBUTYL ALCOHOL) / PG III	3	None		None	BP001		5	None	
1213	ISOBUTYL ACETATE / PG II	3	None		None	BP001		1	None	
1214	ISOBUTYLAMINE / PG II	3	8		None	BP001		1	None	CR5
1216	ISOOCTENES / PG II	3	None		None	BP001		1	None	
1218	ISOPRENE, STABILIZED / PG I	3	None		None	BP001		None	None	
11219	ISOPROPANOL (also known as ISOPROPYL ALCOHOL) / PG II	3	None		None	BP001		1	1	
1220	ISOPROPYL ACETATE / PG II	3	None		None	BP001		1	None	
1221	ISOPROPYLAMINE / PG I	3	8		None	BP001		None	None	CR5
1222	ISOPROPYL NITRATE / PG II	3	None		None	BP001		1	None	
1223	KEROSENE / PG III	3	None		None	BP001		5	None	
1224	KETONES, LIQUID, N.O.S. / PG II	3	None		274	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	1	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	Cl • 60• 1.•	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1224	KETONES, LIQUID, N.O.S. / PG III	3	None		274	BP001		5	None	
1228	MERCAPTANS, LIQUID, FLAMMABLE, TOXIC, N.O.S. or MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, TOXIC, N.O.S. / PG II	3	6.1		274	BP001		1	None	
1228	MERCAPTANS, LIQUID, FLAMMABLE, TOXIC, N.O.S. or MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, TOXIC, N.O.S. / PG III	3	6.1		274	BP001		5	None	
1229	MESITYL OXIDE / PG III	3	None		None	BP001		5	None	
1230	METHANOL / PG II	3	6.1		279	BP001		1	None	
1231	METHYL ACETATE / PG II	3	None		None	BP001		1	1	
1233	METHYLAMYL ACETATE / PG III	3	None		None	BP001		5	None	
1234	METHYLAL / PG II	3	None		None	BP001		1	None	
1235	METHYLAMINE, AQUEOUS SOLUTION / PG II	3	8		None	BP001		1	None	CG18, CR5, CR23
1237	METHYL BUTYRATE / PG II	3	None		None	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1238	METHYL CHLOROFORMATE / PG I	6.1	3, 8		354	BP602		None	None	CG1, CR6, CR19, CR30
1239	METHYL CHLOROMETHYL ETHER / PG I	6.1	3		354	BP602		None	None	
1242	METHYLDICHLOROSILANE / PG I	4.3	3, 8		None	BP401	SP31	None	None	CG1, CR6, CR19, CR30
1243	METHYL FORMATE / PG I	3	None		None	BP001		None	None	
1244	METHYLHYDRAZINE / PG I	6.1	3, 8		354	BP602		None	None	CG18, CR5, CR30
1245	METHYL ISOBUTYL KETONE / PG II	3	None		None	BP001		1	None	
1246	METHYL ISOPROPENYL KETONE, STABILIZED / PG II	3	None		None	BP001		1	None	
1247	METHYL METHACRYLATE MONOMER, STABILIZED / PG II	3	None		None	BP001		1	None	
1248	METHYL PROPIONATE / PG II	3	None		None	BP001		1	None	
1249	METHYL PROPYL KETONE / PG II	3	None		None	BP001		1	None	
1250	METHYLTRICHLOROSILANE / PG II	3	8		None	BP010		None	None	CG1, CR6, CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1251	METHYL VINYL KETONE, STABILIZED / PG I	6.1	3, 8		354	BP601		None	None	CR30
1259	NICKEL CARBONYL / PG I	6.1	3		None	BP601		None	None	
1261	NITROMETHANE / PG II	3	None		None	BP001		1	None	
1262	OCTANES / PG II	3	None		None	BP001		1	None	
1263	PAINT RELATED MATERIAL / PG I	3	None	Including paint thinning or reducing compound	163	BP001		0.5	None	
1263	PAINT RELATED MATERIAL / PG II	3	None	Including paint thinning or reducing compound	163	BP001		5	None	
1263	PAINT RELATED MATERIAL / PG III	3	None	Including paint thinning or reducing compound	163	BP001		5	None	
1264	PARALDEHYDE / PG III	3	None		None	BP001		5	None	
1265	PENTANES / PG I	3	None	Liquid	None	BP001		None	None	
1265	PENTANES / PG II	3	None	Liquid	None	BP001		1	None	
1266	PERFUMERY PRODUCTS / PG II	3	None	With flammable solvents	163	BP001		5	1	
1266	PERFUMERY PRODUCTS / PG III	3	None	With flammable solvents	163	BP001		5	1	
1267	PETROLEUM CRUDE OIL / PG I	3	None		357	BP001		0.5	None	
1267	PETROLEUM CRUDE OIL / PG II	3	None		357	BP001		1	None	
1267	PETROLEUM CRUDE OIL / PG III	3	None		357	BP001		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /		Subsidiary	G	SN	Packing (A)	ppendix 5)	Ι.Ο.	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	PETROLEUM DISTILLATES, N.O.S. or PETROLEUM	3	None		None	BP001		0.5	None	
	PRODUCTS, N.O.S. / PG I									
	PETROLEUM DISTILLATES,									
1268	N.O.S. or PETROLEUM	3	None		None	BP001		1	None	
	PRODUCTS, N.O.S. / PG II									
	PETROLEUM DISTILLATES,									
1268	N.O.S. or PETROLEUM	3	None		None	BP001		5	None	
	PRODUCTS, N.O.S. / PG III									
1272	PINE OIL / PG III	3	None		None	BP001		5	None	
	n-PROPANOL (also known as									
1274	PROPYL ALCOHOL, NORMAL) /	3	None		None	BP001		1	1	
	PG II									
	n-PROPANOL (also known as									
1274	PROPYL ALCOHOL, NORMAL) /	3	None		None	BP001		5	1	
	PG III									
1275	PROPIONALDEHYDE / PG II	3	None		None	BP001		1	None	
1276	n-PROPYL ACETATE / PG II	3	None		None	BP001		1	None	
1277	PROPYLAMINE / PG II	3	8		None	BP001		1	None	CR5
1278	1-CHLOROPROPANE / PG II	3	None		None	BP001		1	None	CG10
1279	1,2-DICHLOROPROPANE / PG II	3	None		None	BP001		1	None	CG10

(1)	(2)	(3)	(4)	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1280	PROPYLENE OXIDE / PG I	3	None		None	BP001		None	None	
1281	PROPYL FORMATES / PG II	3	None		None	BP001		1	None	
1282	PYRIDINE / PG II	3	None		None	BP001		1	None	
1286	ROSIN OIL / PG II	3	None		None	BP001		5	None	
1286	ROSIN OIL / PG III	3	None		None	BP001		5	None	
1287	RUBBER SOLUTION / PG II	3	None		None	BP001		5	None	
1287	RUBBER SOLUTION / PG III	3	None		None	BP001		5	None	
1288	SHALE OIL / PG II	3	None		None	BP001		1	None	
1288	SHALE OIL / PG III	3	None		None	BP001		5	None	
1289	SODIUM METHYLATE SOLUTION / PG II	3	8	In alcohol	None	BP001		1	None	CG18, CR5
1289	SODIUM METHYLATE SOLUTION / PG III	3	8	In alcohol	None	BP001		5	None	CG18, CR5
1292	TETRAETHYL SILICATE / PG III	3	None		None	BP001		5	None	
1293	TINCTURES, MEDICINAL / PG II	3	None		None	BP001		1	1	
1293	TINCTURES, MEDICINAL / PG III	3	None		None	BP001		5	1	
1294	TOLUENE / PG II	3	None		None	BP001		1	None	
1295	TRICHLOROSILANE / PG I	4.3	3, 8		None	BP401	SP31	None	None	CG1, CR6, CR19, CR30

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1296	TRIETHYLAMINE / PG II	3	8		None	BP001		1	None	CR5
1297	TRIMETHYLAMINE, AQUEOUS SOLUTION / PG I	3	8	Not more than 50% trimethylamine, by mass	None	BP001		None	None	CR5, CR23
1297	TRIMETHYLAMINE, AQUEOUS SOLUTION / PG II	3	8	Not more than 50% trimethylamine, by mass	None	BP001		1	None	CR5, CR23
1297	TRIMETHYLAMINE, AQUEOUS SOLUTION / PG III	3	8	Not more than 50% trimethylamine, by mass	None	BP001		5	None	CR5, CR23
1298	TRIMETHYLCHLOROSILANE / PG II	3	8		None	BP010		None	None	CG1, CR6, CR19
1299	TURPENTINE / PG III	3	None		None	BP001		5	None	
1300	TURPENTINE SUBSTITUTE / PG II	3	None		None	BP001		1	None	
1300	TURPENTINE SUBSTITUTE / PG III	3	None		None	BP001		5	None	
1301	VINYL ACETATE, STABILIZED / PG II	3	None		None	BP001		1	None	
1302	VINYL ETHYL ETHER, STABILIZED / PG I	3	None		None	BP001		None	None	
1303	VINYLIDENE CHLORIDE, STABILIZED / PG I	3	None		None	BP001		None	None	CG10

Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN Compatibility **Specifications** Class LQ **MPS** Packing Group (if any) Hazard (Appendix 4) BP SP 2.3.3 No. VINYL ISOBUTYL ETHER, 1304 3 None None BP001 1 None STABILIZED / PG II VINYLTRICHLOROSILANE / PG CG1, CR6, 1305 3 8 BP010 None None None CR19 WOOD PRESERVATIVES, 1306 3 BP001 5 None None None LIQUID / PG II WOOD PRESERVATIVES, 1306 3 BP001 None None 5 None LIQUID / PG III 1307 XYLENES / PG II BP001 3 None None 1 None 1307 XYLENES / PG III 3 None BP001 5 None None ZIRCONIUM SUSPENDED IN A 1308 3 None None BP001 SP33 None None FLAMMABLE LIQUID / PG I

**(5)** 

**(6)** 

None

None

None

**(7)** 

SP33

SP100

1

5

1

None

None

None

BP001

BP001

BP002

**(8)** 

**(9)** 

**(10)** 

**(1)** 

1308

1308

1309

**(2)** 

ZIRCONIUM SUSPENDED IN A

ZIRCONIUM SUSPENDED IN A

FLAMMABLE LIQUID / PG III

ALUMINIUM POWDER,

COATED / PG II

FLAMMABLE LIQUID / PG II

**(3)** 

3

3

4.1

None

None

None

**(4)** 

CG15, CR3,

CR5, CR6,

CR21

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •6• /•	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1309	ALUMINIUM POWDER, COATED / PG III	4.1	None		None	BP002	SP100	5	None	CG15, CR3, CR5, CR6, CR21
1310	AMMONIUM PICRATE, WETTED / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP26 SP31	None	None	CG2
1312	BORNEOL / PG III	4.1	None		None	BP002		5	None	
1313	CALCIUM RESINATE / PG III	4.1	None		None	BP002		5	None	
11314	CALCIUM RESINATE, FUSED / PG III	4.1	None		None	BP002		5	None	
1318	COBALT RESINATE, PRECIPITATED / PG III	4.1	None		None	BP002		5	None	
1320	DINITROPHENOL, WETTED / PG I	4.1	6.1	With not less than 15% water, by mass	None	BP406	SP26 SP31	None	None	
1321	DINITROPHENOLATES, WETTED / PG I	4.1	6.1	With not less than 15% water, by mass	None	BP406	SP26 SP31	None	None	
1322	DINITRORESORCINOL, WETTED / PG I	4.1	None	With not less than 15% water, by mass	None	BP406	SP26 SP31	None	None	
1323	FERROCERIUM / PG II	4.1	None	Ferrocerium, stabilized against corrosion, with a minimum iron content of 10% is not subject to	None	BP002	SP100	1	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C*0°4*	SN	Packing (A)	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				the Dangerous Goods Ordinance						
				(Cap. 295).						
1324	FILMS, NITROCELLULOSE BASE / PG III	4.1	None	Gelatin coated, except scrap	None	BP002		5	None	
1325	FLAMMABLE SOLID, ORGANIC, N.O.S. / PG II	4.1	None		274	BP002		1	1	
1325	FLAMMABLE SOLID, ORGANIC, N.O.S. / PG III	4.1	None		274	BP002		5	1	
1326	HAFNIUM POWDER, WETTED / PG II	4.1	None	With not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns	None	BP410	SP31 SP40	1	None	CG15, CR3
1328	HEXAMETHYLENETETRAMIN E / PG III	4.1	None		None	BP002		5	1	
1330	MANGANESE RESINATE / PG III	4.1	None		None	BP002		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charle and and	SN	Packing (A <sub>1</sub>	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1331	MATCHES, "STRIKE ANYWHERE" / PG III	4.1	None	Matches that can be ignited by friction on a solid surface	None	BP407	SP27	5	None	
1332	METALDEHYDE / PG III	4.1	None		None	BP002		5	None	
1333	CERIUM / PG II	4.1	None	Slabs, ingots or rods	None	BP002	SP100	1	None	CR3
1334	NAPHTHALENE, CRUDE or NAPHTHALENE, REFINED / PG III	4.1	None		None	BP002		5	1	
	NITROGUANIDINE, WETTED (also known as PICRITE, WETTED) / PG I	4.1	None	With not less than 20% water, by mass	None	BP406	SP31	None	None	
1337	NITROSTARCH, WETTED / PG I	4.1	None	With not less than 20% water, by mass	None	BP406	SP31	None	None	
11338	PHOSPHORUS, AMORPHOUS / PG III	4.1	None		None	BP410		5	None	CR3
11339	PHOSPHORUS HEPTASULPHIDE / PG II	4.1	None	Free from yellow or white phosphorus	None	BP410	SP31	1	None	CR3
11340	PHOSPHORUS PENTASULPHIDE / PG II	4.3	4.1	Free from yellow or white phosphorus	None	BP410	SP31 SP40	0.5	None	
1341	PHOSPHORUS SESQUISULPHIDE / PG II	4.1	None	Free from yellow or white phosphorus	None	BP410	SP31	1	None	CR3

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

UN	Proper Shipping Name /	CI	Subsidiary	G •0• 4•	SN	Packing (A)	ppendix 5)		MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1343	PHOSPHORUS TRISULPHIDE / PG II	4.1	None	Free from yellow or white phosphorus	None	BP410	SP31	1	None	CR3
1344	TRINITROPHENOL, WETTED (also known as PICRIC ACID, WETTED) / PG I	4.1	None	With not less than 30% water, by mass	None	BP406	SP26 SP31	None	None	
1345	RUBBER SCRAP or RUBBER SHODDY / PG II	4.1	None	Powdered or granulated, not exceeding 840 microns and rubber content more than 45%. Fully vulcanized hard rubber is not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP002		1	None	
11346	SILICON POWDER, AMORPHOUS / PG III	4.1	None	This item is not subject to the Dangerous Goods Ordinance (Cap. 295) when in any other form.	None	BP002		5	None	CR3
11347	SILVER PICRATE, WETTED / PG I	4.1	None	With not less than 30% water, by mass	None	BP406	SP25 SP26 SP31	None	None	CG7
1348	SODIUM DINITRO-o- CRESOLATE, WETTED / PG I	4.1	6.1	With not less than 15% water, by mass	None	BP406	SP26 SP31	None	None	
1349	SODIUM PICRAMATE, WETTED / PG I	4.1	None	With not less than 20% water, by mass	None	BP406	SP26 SP31	None	None	

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	<b>(6)</b>	<b>(7</b> )	<b>(8)</b>	<b>(9</b> )	(10)

UN	Proper Shipping Name /	CI.	Subsidiary	Cl •6• 4•	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1350	SULPHUR / PG III	4.1	None	Sulphur is not subject to the Dangerous Goods Ordinance (Cap. 295) when it has been formed to the shapes of prills, granules, pellets, pastilles or flakes.	None	BP002		5	None	CR3
1352	TITANIUM POWDER, WETTED / PG II	4.1	None	With not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns	None	BP410	SP31 SP40	1	None	CG15, CR3
1353	FIBRES or FABRICS IMPREGNATED WITH WEAKLY NITRATED NITROCELLULOSE, N.O.S. / PG III	4.1	None		None	BP410		5	None	
1354	TRINITROBENZENE, WETTED / PG I	4.1	None	With not less than 30% water, by mass	None	BP406	SP31	None	None	

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	GI.	Subsidiary	G .60 (.	SN	Packing (A)	ppendix 5)		MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	TRINITROBENZOIC ACID,			With not less than 30% water,						

UN	Proper Shipping Name /	Class	Subsidiary	Cu anifi an 4i ama	SN	Packing (A)	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1355	TRINITROBENZOIC ACID, WETTED / PG I	4.1	None	With not less than 30% water, by mass	None	BP406	SP31	None	None	
	TRINITROTOLUENE, WETTED (also known as TNT, WETTED) / PG I	4.1	None	With not less than 30% water, by mass	None	BP406	SP31	None	None	
1357	UREA NITRATE, WETTED / PG I	4.1	None	With not less than 20% water, by mass	None	BP406	SP31	None	None	
1358	ZIRCONIUM POWDER, WETTED / PG II	4.1	None	With not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns	None	BP410	SP31 SP40	1	None	CG15, CR3
1360	CALCIUM PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
1361	CARBON / PG II	4.2	None	Animal or vegetable origin.  Non-activated carbon blacks of mineral origin and carbons made by steam activation process are	None	BP002		None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '0"	SN	Packing (Ap	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				not subject to the Dangerous						
				Goods Ordinance (Cap. 295).						
				Animal or vegetable origin.						
				Non-activated carbon blacks of						
1261	CARRON / DC HI	4.2	None	mineral origin and carbons made	None	BP002		None	Nama	
1301	CARBON / PG III	4.2	None	by steam activation process are	None	BP002		None	None	
				not subject to the Dangerous						
				Goods Ordinance (Cap. 295).						
				Carbons made by steam						
1260	CARRON ACTIVATED / DC HI	4.0	N	activation process is not subject	N	DD000	GD2.1	NT	NT	
1362	CARBON, ACTIVATED / PG III	4.2	None	to the Dangerous Goods	None	BP002	SP31	None	None	
				Ordinance (Cap. 295).						
				p-Nitrosodimethylaniline,						
	. NUTDOCODDATE TUNA AND INC			wetted with more than 50%						
1369	p-NITROSODIMETHYLANILINE	4.2	None	water is not subject to the	None	BP410		None	None	
	/ PG II			Dangerous Goods Ordinance						
				(Cap. 295).						
1276	IRON OXIDE, SPENT or IRON	4.2	Mana	Obtained from coal gas	NI	DD000	CD100	Mana	Mana	
1376	SPONGE, SPENT / PG III	4.2	None	purification	None	BP002	SP100	None	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
11378	METAL CATALYST, WETTED / PG II	4.2	None	With a visible excess of liquid	274	BP410	SP31 SP39 SP40	None	None	
1380	PENTABORANE / PG I	4.2	6.1		None	BP601		None	None	
	PHOSPHORUS, WHITE or YELLOW, DRY or UNDER WATER or IN SOLUTION / PG I	4.2	6.1		None	BP405	SP31	None	None	
1382	POTASSIUM SULPHIDE, ANHYDROUS or POTASSIUM SULPHIDE / PG II	4.2	None	Potassium Sulphide with less than 30% water of crystallization	None	BP410	SP31 SP40	None	None	CG18, CR5
1383	PYROPHORIC METAL, N.O.S. or PYROPHORIC ALLOY, N.O.S. / PG I	4.2	None		274	BP404	SP31	None	None	CG15
1384	SODIUM DITHIONITE (also known as SODIUM HYDROSULPHITE) / PG II	4.2	None		None	BP410	SP31	None	None	
1385	SODIUM SULPHIDE, ANHYDROUS or SODIUM SULPHIDE / PG II	4.2	None	Sodium Sulphide with less than 30% water of crystallization	None	BP410	SP31	None	None	CG18, CR5
11389	ALKALI METAL AMALGAM, LIQUID / PG I	4.3	None	The group of alkali metals includes lithium, sodium,	None	BP402	SP31	None	None	CG7, CG11, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				potassium, rubidium and						
				caesium.						
				The group of alkali metals						
1300	ALKALI METAL AMIDES / PG II	4.3	None	includes lithium, sodium,	None	BP410	SP31	0.5	None	CR5
1390	ALKALI METAL AMIDES / FO II	4.3	None	potassium, rubidium and	None	DF410	SP40	0.5	None	CKS
				caesium.						
				The group of alkali metals						
				includes lithium, sodium,						
	ALKALI METAL DISPERSION or			potassium, rubidium and						
1391	ALKALINE EARTH METAL	4.3	None	caesium.	None	BP402	SP31	None	None	CR5
	DISPERSION / PG I			The group of alkaline earth						
				metals includes magnesium,						
				calcium, strontium and barium.						
	ALKALINE EARTH METAL			The group of alkaline earth						CG7, CG11,
1392		4.3	None	metals includes magnesium,	None	BP402	SP31	None	None	
	AMALGAM, LIQUID / PG I			calcium, strontium and barium.						CR5
	AL MALINE EADTH METAL			The group of alkaline earth			CD21			
1393	ALKALINE EARTH METAL	4.3	None	metals includes magnesium,	None	BP410	SP31	0.5	None	CR5
	ALLOY, N.O.S. / PG II			calcium, strontium and barium.			SP40			
1304	ALUMINIUM CARBIDE / PG II	4.3	None		None	BP410	SP31	0.5	None	CR5
1394	ALUMINIUM CARDIDE / PU II	4.3	none		rione	DF410	SP40	0.3	none	CKJ

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1395	ALUMINIUM FERROSILICON POWDER / PG II	4.3	6.1		None	BP410	SP31 SP40	0.5	None	CR5, CR6
1396	ALUMINIUM POWDER, UNCOATED / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	CG15, CR5, CR6
1396	ALUMINIUM POWDER, UNCOATED / PG III	4.3	None		None	BP410	SP31	1	None	CG15, CR5, CR6
1397	ALUMINIUM PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
1398	ALUMINIUM SILICON POWDER, UNCOATED / PG III	4.3	None	This item is not subject to the Dangerous Goods Ordinance (Cap. 295) when coated.	None	BP410	SP31	1	None	CG15, CR5, CR6
1400	BARIUM / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	CR5
1401	CALCIUM / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	CR5
1402	CALCIUM CARBIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1402	CALCIUM CARBIDE / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	CR5
1403	CALCIUM CYANAMIDE / PG III	4.3	None	With more than 0.1% calcium carbide	None	BP410		1	None	CR5
1404	CALCIUM HYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1405	CALCIUM SILICIDE / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	CR5
1405	CALCIUM SILICIDE / PG III	4.3	None		None	BP410	SP31	1	None	CR5
1407	CAESIUM / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1408	FERROSILICON / PG III	4.3	6.1	With 30% or more but less than 90% silicon	None	BP003	SP20 SP100	1	None	CR5, CR6
1409	METAL HYDRIDES, WATER- REACTIVE, N.O.S. / PG I	4.3	None		274	BP403	SP31	None	None	CR5
1409	METAL HYDRIDES, WATER- REACTIVE, N.O.S. / PG II	4.3	None		274	BP410	SP31 SP40	0.5	None	CR5
1410	LITHIUM ALUMINIUM HYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1411	LITHIUM ALUMINIUM HYDRIDE, ETHEREAL / PG I	4.3	3		None	BP402		None	None	
1413	LITHIUM BOROHYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1414	LITHIUM HYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1415	LITHIUM / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1417	LITHIUM SILICON / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER / PG I	4.3	4.2		None	BP403	SP31	None	None	CG15, CR5
1418	MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER / PG II	4.3	4.2		None	BP410	SP31 SP40	None	None	CG15, CR5
1418	MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER / PG III	4.3	4.2		None	BP410	SP31	None	None	CG15, CR5
1419	MAGNESIUM ALUMINIUM PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
1420	POTASSIUM METAL ALLOYS, LIQUID / PG I	4.3	None		None	BP402	SP31	None	None	CR5
1421	ALKALI METAL ALLOY, LIQUID, N.O.S. / PG I	4.3	None	The group of alkali metals includes lithium, sodium, potassium, rubidium and caesium.	None	BP402	SP31	None	None	CR5
1422	POTASSIUM SODIUM ALLOYS, LIQUID / PG I	4.3	None		None	BP402	SP31	None	None	CR5
1423	RUBIDIUM / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1426	SODIUM BOROHYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (A)	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1427	SODIUM HYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1428	SODIUM / PG I	4.3	None		None	BP403	SP31	None	None	CR5
1431	SODIUM METHYLATE / PG II	4.2	8		None	BP410	SP31	None	None	CG18, CR5
1432	SODIUM PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
1433	STANNIC PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
1435	ZINC ASHES / PG III	4.3	None		None	BP002	SP100	1	None	CG7, CG15
1436	ZINC POWDER or ZINC DUST /	4.3	4.2		None	BP403	SP31	None	None	CG7, CG15,
1430	PG I	4.5	4.2		None	DI 403	51 51	None	None	CR5, CR6
1436	ZINC POWDER or ZINC DUST /	4.3	4.2		None	BP410	SP31	None	None	CG7, CG15,
1430	PG II	7.5	7.2		TVOIC	DI 410	SP40	TVOIC	Ttone	CR5, CR6
1436	ZINC POWDER or ZINC DUST /	4.3	4.2		None	BP410	SP31	None	None	CG7, CG15,
1430	PG III	7.5	7.2		TVOIC	<b>D</b> 1 410	51 51	TVOILE	TVOILE	CR5, CR6
1437	ZIRCONIUM HYDRIDE / PG II	4.1	None		None	BP410	SP31	1	None	
1137			TVOILE		TVOIC	<b>D1</b> 110	SP40	1	Ttone	
1438	ALUMINIUM NITRATE / PG III	5.1	None		None	BP002		5	None	
1439	AMMONIUM DICHROMATE /	5.1	None		None	BP002		1	None	CG2, CR5
1437	PG II	3.1	TVOILE		TVOIC	DI 002		1	TVOILE	
1442	AMMONIUM PERCHLORATE /	5.1	None		None	BP002		1	None	CG2, CG13,
1772	PG II	5.1	110110		110110	DI 002		1	110110	CR19, CR28
1444	AMMONIUM PERSULPHATE /	5.1	None		None	BP002		5	None	CG2
	PG III	J.1	1,0110		1,0110	21002		3	1,0110	232

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (A)	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1445	BARIUM CHLORATE, SOLID / PG II	5.1	6.1		None	BP002		1	None	CG4, CR10, CR19
1446	BARIUM NITRATE / PG II	5.1	6.1		None	BP002		1	None	
1447	BARIUM PERCHLORATE, SOLID / PG II	5.1	6.1		None	BP002		1	None	CG13, CR10, CR19
1448	BARIUM PERMANGANATE / PG II	5.1	6.1		None	BP002		1	None	CG14, CR10, CR19, CR28
1449	BARIUM PEROXIDE / PG II	5.1	6.1		None	BP002	SP100	1	None	CG16, CR4, CR5, CR27
11450	BROMATES, INORGANIC, N.O.S. / PG II	5.1	None	Ammonium bromate and its aqueous solutions and mixtures of a bromate with an ammonium salt are prohibited.	274	BP002		1	None	CG3, CR10, CR19
1451	CAESIUM NITRATE / PG III	5.1	None		None	BP002		5	None	
1452	CALCIUM CHLORATE / PG II	5.1	None		None	BP002		1	None	CG4, CR10, CR19
1453	CALCIUM CHLORITE / PG II	5.1	None		None	BP002		1	None	CG5, CR10, CR19
1454	CALCIUM NITRATE / PG III	5.1	None	The commercial grade of calcium nitrate fertilizer, when consisting mainly of a double	None	BP002		5	1	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifiastiana	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				salt (calcium nitrate and ammonium nitrate) containing not more than 10% ammonium nitrate and at least 12% water of crystallization, is not subject to the Dangerous Goods Ordinance (Cap. 295).						
1455	CALCIUM PERCHLORATE / PG II	5.1	None		None	BP002		1	None	CG13, CR10, CR19
11456	CALCIUM PERMANGANATE / PG II	5.1	None		None	BP002		1	None	CG14, CR10, CR19, CR28
1457	CALCIUM PEROXIDE / PG II	5.1	None		None	BP002	SP100	1	None	CG16, CR4, CR5, CR27
1458	CHLORATE AND BORATE MIXTURE / PG II	5.1	None		None	BP002		1	None	CG4, CR10, CR19
1458	CHLORATE AND BORATE MIXTURE / PG III	5.1	None		None	BP002		5	None	CG4, CR10, CR19
1459	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE, SOLID / PG II	5.1	None		None	BP002		1	None	CG4, CR10, CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
1459	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE, SOLID / PG III	5.1	None		None	BP002		5	None	CG4, CR10, CR19
11461	CHLORATES, INORGANIC, N.O.S. / PG II	5.1	None	Ammonium chlorate and its aqueous solutions and mixtures of a chlorate with an ammonium salt are prohibited.	274	BP002		1	None	CG4, CR10, CR19
11462	CHLORITES, INORGANIC, N.O.S. / PG II	5.1	None	Ammonium chlorite and its aqueous solutions and mixtures of a chlorite with an ammonium salt are prohibited.	274	BP002		1	None	CG5, CR10, CR19
1463	CHROMIUM TRIOXIDE, ANHYDROUS / PG II	5.1	6.1, 8		None	BP002	SP31	1	None	CR4, CR31
1465	DIDYMIUM NITRATE / PG III	5.1	None		None	BP002		5	None	
1466	FERRIC NITRATE / PG III	5.1	None		None	BP002		5	None	
1467	GUANIDINE NITRATE / PG III	5.1	None		None	BP002		5	None	CR15
1469	LEAD NITRATE / PG II	5.1	6.1		None	BP002		1	None	CG7, CG9
1470	LEAD PERCHLORATE, SOLID / PG II	5.1	6.1		None	BP002		1	None	CG7, CG9, CG13, CR10, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1471	LITHIUM HYPOCHLORITE, DRY or LITHIUM HYPOCHLORITE MIXTURE / PG II	5.1	None		None	BP002		1	None	CG8, CR5, CR10, CR19, CR28
1471	LITHIUM HYPOCHLORITE, DRY or LITHIUM HYPOCHLORITE MIXTURE / PG III	5.1	None		None	BP002		5	None	CG8, CR5, CR10, CR19, CR28
1472	LITHIUM PEROXIDE / PG II	5.1	None		None	BP002	SP100	1	None	CG16, CR4, CR5, CR27
1473	MAGNESIUM BROMATE / PG II	5.1	None		None	BP002		1	None	CG3, CR10, CR19
1474	MAGNESIUM NITRATE / PG III	5.1	None	Magnesium nitrate hexahydrate is not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP002		5	None	
1475	MAGNESIUM PERCHLORATE / PG II	5.1	None		None	BP002		1	None	CG13, CR10, CR19
1476	MAGNESIUM PEROXIDE / PG II	5.1	None		None	BP002	SP100	1	None	CG16, CR4, CR5, CR27
1477	NITRATES, INORGANIC, N.O.S. / PG II	5.1	None	Hydrazine nitrate is prohibited.	None	BP002		1	None	CR10, CR19

**(1) (2) (3) (4) (5) (7) (9)** (10)**(6) (8)** Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN **Compatibility Specifications** LQ Class **MPS** Packing Group (if any) Hazard (Appendix 4) BP 2.3.3 No. SP NITRATES, INORGANIC, N.O.S. 1477 Hydrazine nitrate is prohibited. 5.1 5 CR10, CR19 None None BP002 None PG III CR8, CR10. 1479 OXIDIZING SOLID, N.O.S. / PG I 5.1 BP503 None 274 None None CR19, CR28 OXIDIZING SOLID, N.O.S. / PG CR8, CR10, 1479 5.1 274 BP002 None 1 CR19, CR28 OXIDIZING SOLID, N.O.S. / PG CR8, CR10, 1479 5 5.1 None 274 BP002 1 CR19, CR28  $\Pi$ PERCHLORATES, INORGANIC, CG13, CR10, Hydrazine perchlorate is 1481 BP002 5.1 None None 1 None N.O.S. / PG II prohibited. CR19 PERCHLORATES, INORGANIC, Hydrazine perchlorate is CG13, CR10, 1481 5.1 BP002 None 5 None None N.O.S. / PG III prohibited. CR19 Ammonium permanganate and its aqueous solutions and CG14, CR10, PERMANGANATES. 1482 5.1 274 BP002 mixtures of a permanganate with None 1 None INORGANIC, N.O.S. / PG II CR19, CR28 an ammonium salt are prohibited. Ammonium permanganate and its aqueous solutions and PERMANGANATES, CG14, CR10, mixtures of a permanganate with 5.1 None 274 BP002 5 None INORGANIC, N.O.S. / PG III CR19, CR28 an ammonium salt are prohibited.

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (Ap	ppendix 5)	LQ	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LŲ	MPS	2.3.3
1483	PEROXIDES, INORGANIC,	5.1	None		None	BP002	SP100	1	None	CG16, CR4,
1463	N.O.S. / PG II	J.1	None		None	DF 002	SF 100	1	None	CR5, CR27
1483	PEROXIDES, INORGANIC,	5.1	None		None	BP002	SP100	5	None	CG16, CR4,
1403	N.O.S. / PG III	3.1	Trone		TVOIC	DI 002	51 100	3	TTOILE	CR5, CR27
1484	POTASSIUM BROMATE / PG II	5.1	None		None	BP002		1	None	CG3, CR10,
					1 1722			_		CR19
1485	POTASSIUM CHLORATE / PG II	5.1	None		None	BP002		1	None	CG4, CR10,
										CR19
				This item is not subject to the						
1486	POTASSIUM NITRATE / PG III	5.1	None	Dangerous Goods Ordinance	None	BP002		5	1	
				(Cap. 295) when in non-friable prills or granules form.						
	POTASSIUM NITRATE AND			prins of granutes form.						
	SODIUM NITRITE MIXTURE /	5.1	None		None	BP002		1	None	CG12, CR10,
	PG II	0.12	1,0116		1 (0.10	21002		-	1,0110	CR19
										CG12, CR10,
1488	POTASSIUM NITRITE / PG II	5.1	None		None	BP002		1	None	CR19
1.400	POTASSIUM PERCHLORATE /	<i>5</i> 1	Niana		Name	DD002		1	N	CG13, CR10,
1489	PG II	5.1	None		None	BP002		1	None	CR19
1490	POTASSIUM PERMANGANATE	5.1	None		None	BP002		1	None	CG14, CR10,
1490	/ PG II	3.1	none		none	DFUU2		1	none	CR19, CR28

(1)	(2)	(3)	(4)	(5)	(6)	(7)	l	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crost Cootions	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
1491	POTASSIUM PEROXIDE / PG I	5.1	None		None	BP503		None	None	CG16, CR4,
1492	POTASSIUM PERSULPHATE / PG III	5.1	None		None	BP002		5	None	CR5, CR27 CR11, CR19
1493	SILVER NITRATE / PG II	5.1	None		None	BP002		1	None	CG7
1494	SODIUM BROMATE / PG II	5.1	None		None	BP002		1	None	CG3, CR10, CR19
1495	SODIUM CHLORATE / PG II	5.1	None		None	BP002		1	None	CG4, CR10, CR19
1496	SODIUM CHLORITE / PG II	5.1	None		None	BP002		1	None	CG5, CR10, CR19
1498	SODIUM NITRATE / PG III	5.1	None	This item is not subject to the Dangerous Goods Ordinance (Cap. 295) when in non-friable prills or granules form.	None	BP002		5	1	
1499	SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE / PG III	5.1	None	This item is not subject to the Dangerous Goods Ordinance (Cap. 295) when in non-friable prills or granules form.	None	BP002		5	None	
1500	SODIUM NITRITE / PG III	5.1	6.1		None	BP002		5	None	CG12, CR10, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifi andi area	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
1502	SODIUM PERCHLORATE / PG II	5.1	None		None	BP002		1	None	CG13, CR10,
1302	SODIUM PERCHLORATE / PO II	3.1	None		None	DF002		1	None	CR19
1503	SODIUM PERMANGANATE / PG	5.1	None		None	BP002		1	None	CG14, CR10,
	II	5.1	TVOILC		TVOIC	DI 002		1	TVOIC	CR19, CR28
1504	SODIUM PEROXIDE / PG I	5.1	None		None	BP503		None	None	CG16, CR4,
			1,0110		110110	21000		110110		CR5, CR27
1505	SODIUM PERSULPHATE / PG III	5.1	None		None	BP002		5	None	CR11, CR19
1506	STRONTIUM CHLORATE / PG II	5.1	None		None	BP002		1	None	CG4, CR10,
			1,0110		110110	21002				CR19
1507	STRONTIUM NITRATE / PG III	5.1	None		None	BP002		5	None	
1508	STRONTIUM PERCHLORATE /	5.1	None		None	BP002		1	None	CG13, CR10,
1500	PG II	5.1	1 (6116		1 (0110	D1 002		-	Tyone	CR19
1509	STRONTIUM PEROXIDE / PG II	5.1	None		None	BP002	SP100	1	None	CG16, CR4,
			1,0110		110110	21002	21100			CR5, CR27
1510	TETRANITROMETHANE / PG I	6.1	5.1		354	BP602		None	None	CR4
1511	UREA HYDROGEN PEROXIDE /	5.1	8		None	BP002		5	None	
1311	PG III	3.1	Ü		TVOIC	D1 002			Tione	
1512	ZINC AMMONIUM NITRITE /	5.1	None		None			1	None	
1312	PG II	5.1	110110		110110			1	110110	
1513	ZINC CHLORATE / PG II	5.1	None		None	BP002		1	None	CG4, CG7,
1313	En to officiality 10 fi	5.1	110110		1,0110	D1 002		1	1,0110	CR10, CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (A)	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1514	ZINC NITRATE / PG II	5.1	None		None	BP002		1	None	CG7
1515	ZINC PERMANGANATE / PG II	5.1	None		None	BP002		1	None	CG7, CG14, CR10, CR19, CR28
1516	ZINC PEROXIDE / PG II	5.1	None		None	BP002	SP100	1	None	CG7, CG16, CR4, CR5, CR27
1517	ZIRCONIUM PICRAMATE, WETTED / PG I	4.1	None	With not less than 20% water, by mass	None	BP406	SP26 SP31	None	None	
1541	ACETONE CYANOHYDRIN, STABILIZED / PG I	6.1	None		354	BP602		None	None	CG6, CR5, CR6
	ALKALOIDS, SOLID, N.O.S. or ALKALOIDS SALTS, SOLID, N.O.S. / PG I	6.1	None		274	BP002		None	None	
	ALKALOIDS, SOLID, N.O.S. or ALKALOIDS SALTS, SOLID, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
1544	ALKALOIDS, SOLID, N.O.S. or ALKALOIDS SALTS, SOLID, N.O.S. / PG III	6.1	None		274	BP002		5	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	GI.	Subsidiary	G 101 (1	SN	Packing (Ap	ppendix 5)	T 0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1545	ALLYL ISOTHIOCYANATE, STABILIZED / PG II	6.1	3		None	BP001		0.1	None	
1546	AMMONIUM ARSENATE / PG II	6.1	None		None	BP002		0.5	None	CG2, CR6
1547	ANILINE / PG II	6.1	None		279	BP001		0.1	None	CR5
1548	ANILINE HYDROCHLORIDE / PG III	6.1	None		None	BP002		5	None	
1549	ANTIMONY COMPOUND, INORGANIC, SOLID, N.O.S. / PG III	6.1	None	Antimony sulphides and oxides which contain not more than 0.5% of arsenic calculated on the total mass are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		5	None	
1550	ANTIMONY LACTATE / PG III	6.1	None		None	BP002		5	None	
1551	ANTIMONY POTASSIUM TARTRATE / PG III	6.1	None		None	BP002		5	None	
1553	ARSENIC ACID, LIQUID / PG I	6.1	None		None	BP001	SP31	None	None	
1554	ARSENIC ACID, SOLID / PG II	6.1	None		None	BP002		0.5	None	
1555	ARSENIC BROMIDE / PG II	6.1	None		None	BP002		0.5	None	
1556	ARSENIC COMPOUND, LIQUID, N.O.S. / PG I	6.1		Inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s.	274	BP001		None	None	CR1

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	Cl •6• 4•	SN	Packing (Ap	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1556	ARSENIC COMPOUND, LIQUID, N.O.S. / PG II	6.1		Inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s.	274	BP001		0.1	None	CR1
1556	ARSENIC COMPOUND, LIQUID, N.O.S. / PG III	6.1	None	Inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s.	274	BP001		5	None	CR1
1557	ARSENIC COMPOUND, SOLID, N.O.S. / PG I	6.1	None	Inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s.	274	BP002		None	None	CR1
1557	ARSENIC COMPOUND, SOLID, N.O.S. / PG II	6.1		Inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s.	274	BP002		0.5	None	CR1
1557	ARSENIC COMPOUND, SOLID, N.O.S. / PG III	6.1		Inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s.	274	BP002		5	None	CR1
1558	ARSENIC / PG II	6.1	None		None	BP002		0.5	None	
1559	ARSENIC PENTOXIDE / PG II	6.1	None		None	BP002		0.5	None	
1560	ARSENIC TRICHLORIDE / PG I	6.1	None		None	BP602		None	None	
1561	ARSENIC TRIOXIDE / PG II	6.1	None		None	BP002		0.5	None	
1562	ARSENICAL DUST / PG II	6.1	None		None	BP002		0.5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9)</b>	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				Barium sulphate, barium stearate						
1564	BARIUM COMPOUND, N.O.S. /	6.1	None	and barium titanate are not	274	BP002		0.5	None	
1304	PG II	0.1	None	subject to the Dangerous Goods	214	DF 002		0.5	None	
				Ordinance (Cap. 295).						
				Barium sulphate, barium stearate						
1564	BARIUM COMPOUND, N.O.S. /	6.1	None	and barium titanate are not	274	BP002		5	None	
1304	PG III	0.1	None	subject to the Dangerous Goods	214	DI 002		3	None	
				Ordinance (Cap. 295).						
1565	BARIUM CYANIDE / PG I	6.1	None		None	BP002	SP31	None	None	CG6, CR5
1566	BERYLLIUM COMPOUND,	6.1	None		274	BP002		0.5	None	
1300	N.O.S. / PG II	0.1	Tione		271	B1 002		0.5	Trone	
1566	BERYLLIUM COMPOUND,	6.1	None		274	BP002		5	None	
	N.O.S. / PG III		- 1, 2 - 2					_	- , , , , ,	
1567	BERYLLIUM POWDER / PG II	6.1	4.1		None	BP002	SP100	0.5	None	
1569	BROMOACETONE / PG II	6.1	3		None	BP602		None	None	
1570	BRUCINE / PG I	6.1	None		None	BP002		None	None	
1571	BARIUM AZIDE, WETTED / PG I	4.1	6.1	With not less than 50% water,	None	BP406	SP31	None	None	CG17
13/1	DARION AZIDE, WEITED/FOT	4.1		by mass	None	DF 400	3131	None	None	CGI7
1572	CACODYLIC ACID / PG II	6.1	None		None	BP002		0.5	None	CG1, CR5, CR6,
1312	CACODILIC ACID/ FO II	0.1	None		None	DF 002		0.5	None	CR19
1573	CALCIUM ARSENATE / PG II	6.1	None		None	BP002		0.5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '6"	SN	Packing (Ap	pendix 5)		MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	CALCIUM ARSENATE AND									
1574	CALCIUM ARSENITE	6.1	None		None	BP002		0.5	None	
	MIXTURE, SOLID / PG II									
1575	CALCIUM CYANIDE / PG I	6.1	None		None	BP002	SP31	None	None	CG6, CR5
1577	CHLORODINITROBENZENES, LIQUID / PG II	6.1	None		279	BP001		0.1	None	
11578	CHLORONITROBENZENES, SOLID / PG II	6.1	None		279	BP002		0.5	None	
	4-CHLORO-o-TOLUIDINE HYDROCHLORIDE, SOLID / PG	6.1	None		None	BP002		5	None	
	III									
1580	CHLOROPICRIN / PG I	6.1	None		354	BP601		None	None	
1581	CHLOROPICRIN AND METHYL BROMIDE MIXTURE	2.3	None	With more than 2% chloropicrin	None	BP200		None	None	CR7
1582	CHLOROPICRIN AND METHYL CHLORIDE MIXTURE	2.3	None		None	BP200		None	None	CR7
1583	CHLOROPICRIN MIXTURE,	6.1	None		274	BP602		None	None	
1363	N.O.S. / PG I	0.1	TNOHE		315	DI 002		TNOHE	TNOHE	
11583	CHLOROPICRIN MIXTURE, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '0' ('	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1583	CHLOROPICRIN MIXTURE, N.O.S. / PG III	6.1	None		274	BP001		5	None	
1585	COPPER ACETOARSENITE / PG II	6.1	None		None	BP002		0.5	None	
1586	COPPER ARSENITE / PG II	6.1	None		None	BP002		0.5	None	
1587	COPPER CYANIDE / PG II	6.1	None		None	BP002		0.5	None	CG6, CG7, CR5
1588	CYANIDES, INORGANIC, SOLID, N.O.S. / PG I	6.1	None	Ferricyanides and ferrocyanides are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		None	None	CG6, CR5
1588	CYANIDES, INORGANIC, SOLID, N.O.S. / PG II	6.1	None	Ferricyanides and ferrocyanides are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		0.5	None	CG6, CR5
1588	CYANIDES, INORGANIC, SOLID, N.O.S. / PG III	6.1	None	Ferricyanides and ferrocyanides are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		5	None	CG6, CR5
1589	CYANOGEN CHLORIDE, STABILIZED	2.3	8		None	BP200		None	None	CR7
1590	DICHLOROANILINES, LIQUID / PG II	6.1	None		279	BP001		0.1	None	
1591	o-DICHLOROBENZENE / PG III	6.1	None		279	BP001		5	None	CG10
1593	DICHLOROMETHANE / PG III	6.1	None		None	BP001		5	1	CG10

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1594	DIETHYL SULPHATE / PG II	6.1	None		None	BP001		0.1	None	
1595	DIMETHYL SULPHATE / PG I	6.1	8		354	BP602		None	None	CG1, CR6, CR19
1596	DINITROANILINES / PG II	6.1	None		None	BP002		0.5	None	
1597	DINITROBENZENES, LIQUID / PG II	6.1	None		None	BP001		0.1	None	
1597	DINITROBENZENES, LIQUID / PG III	6.1	None		None	BP001		5	None	
1598	DINITRO-o-CRESOL / PG II	6.1	None		None	BP002		0.5	None	
1599	DINITROPHENOL SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
1599	DINITROPHENOL SOLUTION / PG III	6.1	None		None	BP001		5	None	
1600	DINITROTOLUENES, MOLTEN / PG II	6.1	None		None			None	None	
1601	DISINFECTANT, SOLID, TOXIC, N.O.S. / PG I	6.1	None		274	BP002		None	None	
1601	DISINFECTANT, SOLID, TOXIC, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
11601	DISINFECTANT, SOLID, TOXIC, N.O.S. / PG III	6.1	None		274	BP002		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )		(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •0• 4•	SN	Packing (App	endix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	DYE, LIQUID, TOXIC, N.O.S. or									
1602	DYE INTERMEDIATE, LIQUID,	6.1	None		274	BP001		None	None	
	TOXIC, N.O.S. / PG I									
	DYE, LIQUID, TOXIC, N.O.S. or									
1602	DYE INTERMEDIATE, LIQUID,	6.1	None		274	BP001		0.1	None	
	TOXIC, N.O.S. / PG II									
	DYE, LIQUID, TOXIC, N.O.S. or									
1602	DYE INTERMEDIATE, LIQUID,	6.1	None		274	BP001		5	None	
	TOXIC, N.O.S. / PG III									
1603	ETHYL BROMOACETATE / PG	6.1	3		None	BP001		0.1	None	
	П		_							
1604	ETHYLENEDIAMINE / PG II	8	3		None	BP001		1	None	CG18, CR5
1605	ETHYLENE DIBROMIDE / PG I	6.1	None		354	BP602		None	None	CG10
1606	FERRIC ARSENATE / PG II	6.1	None		None	BP002		0.5	None	
1607	FERRIC ARSENITE / PG II	6.1	None		None	BP002		0.5	None	
1608	FERROUS ARSENATE / PG II	6.1	None		None	BP002		0.5	None	
1611	HEXAETHYL	6.1	None		None	BP001		0.1	None	
1011	TETRAPHOSPHATE / PG II	0.1	None		None	DP001		0.1	None	
	HEXAETHYL									
1612	TETRAPHOSPHATE AND	2.3	None		None	BP200		None	None	CR7
	COMPRESSED GAS MIXTURE									

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •0• 4•	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	HYDROCYANIC ACID,			With not more than 20%						
	AQUEOUS SOLUTION (also			hydrogen cyanide.						
1613	known as HYDROGEN	6.1	None	Hydrocyanic acid with more	None	BP601		None	None	
	CYANIDE, AQUEOUS			than 20% acid, by mass, is						
	SOLUTION / PG I			prohibited.						
	HYDROGEN CYANIDE,			Containing less than 3% water						
1614	STABILIZED / PG I	6.1	None	and absorbed in a porous inert	None	BP099		None	None	
	STABILIZED/FOT			material						
1616	LEAD ACETATE / PG III	6.1	None		None	BP002		5	None	CG7, CG9
1617	LEAD ARSENATES / PG II	6.1	None		None	BP002		0.5	None	CG7, CG9
1618	LEAD ARSENITES / PG II	6.1	None		None	BP002		0.5	None	CG7, CG9
1620	LEAD CYANIDE / PG II	6.1	None		None	BP002		0.5	None	CG6, CG7,
1020	DETER CTTIVIDE / TO II	0.1	Tione		TVOIC	D1 002		0.5	Tione	CG9, CR5
1622	MAGNESIUM ARSENATE / PG II	6.1	None		None	BP002		0.5	None	
-	MERCURIC ARSENATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
	MERCURIC CHLORIDE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
	MERCURIC NITRATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
-	MERCURIC POTASSIUM	0.1	1,0110		110110	21002		0.0	1,0110	CG6, CG7,
1626	CYANIDE / PG I	6.1	None		None	BP002	SP31	None	None	CG11, CR5
	MERCUROUS NITRATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1629	MERCURY ACETATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1630	MERCURY AMMONIUM CHLORIDE / PG II	6.1	None		None	BP002		0.5	None	CG2, CG7, CG11
1631	MERCURY BENZOATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1634	MERCURY BROMIDES / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1636	MERCURY CYANIDE / PG II	6.1	None		None	BP002		0.5	None	CG6, CG7, CG11, CR5
1637	MERCURY GLUCONATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1638	MERCURY IODIDE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1639	MERCURY NUCLEATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1640	MERCURY OLEATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1641	MERCURY OXIDE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1642	MERCURY OXYCYANIDE, DESENSITIZED / PG II	6.1	None		None	BP002		0.5	None	CG6, CG7, CG11, CR5
1643	MERCURY POTASSIUM IODIDE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1644	MERCURY SALICYLATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1645	MERCURY SULPHATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1646	MERCURY THIOCYANATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1647	METHYL BROMIDE AND ETHYLENE DIBROMIDE MIXTURE, LIQUID / PG I	6.1	None		354	BP602		None	None	CG10
1648	ACETONITRILE / PG II	3	None		None	BP001		1	None	
1649	MOTOR FUEL ANTI-KNOCK MIXTURE / PG I	6.1	None		None	BP602		None	None	CG7, CG9
1650	beta-NAPHTHYLAMINE, SOLID / PG II	6.1	None		None	BP002		0.5	None	
1651	NAPHTHYLTHIOUREA / PG II	6.1	None		None	BP002		0.5	None	
1652	NAPHTHYLUREA / PG II	6.1	None		None	BP002		0.5	None	
1653	NICKEL CYANIDE / PG II	6.1	None		None	BP002		0.5	None	CG6, CG7, CR5
1654	NICOTINE / PG II	6.1	None		None	BP001		0.1	None	
1655	NICOTINE COMPOUND, SOLID, N.O.S. or NICOTINE PREPARATION, SOLID, N.O.S. / PG I	6.1	None		274	BP002		None	None	
1655	NICOTINE COMPOUND, SOLID, N.O.S. or NICOTINE PREPARATION, SOLID, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1655	NICOTINE COMPOUND, SOLID, N.O.S. or NICOTINE PREPARATION, SOLID, N.O.S. / PG III	6.1	None		274	BP002		5	None	
1656	NICOTINE HYDROCHLORIDE, LIQUID or SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
1656	NICOTINE HYDROCHLORIDE, LIQUID or SOLUTION / PG III	6.1	None		None	BP001		5	None	
1657	NICOTINE SALICYLATE / PG II	6.1	None		None	BP002		0.5	None	
1658	NICOTINE SULPHATE SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
1658	NICOTINE SULPHATE SOLUTION / PG III	6.1	None		None	BP001		5	None	
1659	NICOTINE TARTRATE / PG II	6.1	None		None	BP002		0.5	None	
1660	NITRIC OXIDE, COMPRESSED	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
1661	NITROANILINES (o-, m-, p-) / PG II	6.1	None		279	BP002		0.5	None	
1662	NITROBENZENE / PG II	6.1	None		279	BP001		0.1	None	
1663	NITROPHENOLS (o-, m-, p-) / PG III	6.1	None		279	BP002		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)		MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1664	NITROTOLUENES, LIQUID / PG II	6.1	None		None	BP001		0.1	None	
1665	NITROXYLENES, LIQUID / PG II	6.1	None		None	BP001		0.1	None	
1669	PENTACHLOROETHANE / PG II	6.1	None		None	BP001		0.1	None	CG10
1670	PERCHLOROMETHYL MERCAPTAN / PG I	6.1	None		354	BP602		None	None	
1671	PHENOL, SOLID / PG II	6.1	None		279	BP002		0.5	None	
1672	PHENYLCARBYLAMINE CHLORIDE / PG I	6.1	None		None	BP602		None	None	
11673	PHENYLENEDIAMINES (o-, m-, p-) / PG III	6.1	None		279	BP002		5	None	
1674	PHENYLMERCURIC ACETATE / PG II	6.1	None		None	BP002		0.5	None	CG7
1677	POTASSIUM ARSENATE / PG II	6.1	None		None	BP002		0.5	None	
1678	POTASSIUM ARSENITE / PG II	6.1	None		None	BP002		0.5	None	
1679	POTASSIUM CUPROCYANIDE / PG II	6.1	None		None	BP002		0.5	None	CG6, CR5
1680	POTASSIUM CYANIDE, SOLID / PG I	6.1	None		None	BP002	SP31	None	None	CG6, CR5
1683	SILVER ARSENITE / PG II	6.1	None		None	BP002		0.5	None	CG7
1684	SILVER CYANIDE / PG II	6.1	None		None	BP002		0.5	None	CG6, CG7, CR5

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	G •0• (•	SN	Packing (Ap	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1685	SODIUM ARSENATE / PG II	6.1	None		None	BP002		0.5	None	
1686	SODIUM ARSENITE, AQUEOUS SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
1686	SODIUM ARSENITE, AQUEOUS SOLUTION / PG III	6.1	None		None	BP001		5	None	
1687	SODIUM AZIDE / PG II	6.1	None		None	BP002		0.5	None	CG17, CR5
1688	SODIUM CACODYLATE / PG II	6.1	None		None	BP002		0.5	None	CR5
1689	SODIUM CYANIDE, SOLID / PG I	6.1	None		None	BP002	SP31	None	None	CG6, CR5
1690	SODIUM FLUORIDE, SOLID / PG III	6.1	None		None	BP002		5	None	CR5
1691	STRONTIUM ARSENITE / PG II	6.1	None		None	BP002		0.5	None	
1692	STRYCHNINE or STRYCHNINE SALTS / PG I	6.1	None		None	BP002		None	None	
1694	BROMOBENZYL CYANIDES, LIQUID / PG I	6.1		p-Bromobenzyl cyanide is not subject to the Dangerous Goods Ordinance (Cap. 295).  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if it falls within the meaning of <i>ammunition</i> under	None	BP001	SP31	None	None	CG6, CR5

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C**C*4*	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				section 2(1) of the Firearms and Ammunition Ordinance (Cap. 238).						
1695	CHLOROACETONE, STABILIZED / PG I	6.1	3, 8		354	BP602		None	None	CR30
1697	CHLOROACETOPHENONE, SOLID / PG II	6.1	None	This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if it falls within the meaning of <i>ammunition</i> under section 2(1) of the Firearms and Ammunition Ordinance (Cap. 238).	None	BP002		None	None	
1698	DIPHENYLAMINE CHLOROARSINE / PG I	6.1	None		None	BP002	SP31	None	None	
1699	DIPHENYLCHLOROARSINE, LIQUID / PG I	6.1	None		None	BP001	SP31	None	None	
1701	XYLYL BROMIDE, LIQUID / PG II	6.1	None		None	BP001	SP31	None	None	CG10
1702	1,1,2,2-TETRACHLOROETHANE / PG II	6.1	None		None	BP001		0.1	None	CG10

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
	TETRAETHYL DITHIOPYROPHOSPHATE / PG II	6.1	None		None	BP001		0.1	None	
1707	THALLIUM COMPOUND, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
1708	TOLUIDINES, LIQUID / PG II	6.1	None		279	BP001		0.1	None	
11709	2,4-TOLUYLENEDIAMINE, SOLID / PG III	6.1	None		None	BP002		5	None	
1710	TRICHLOROETHYLENE / PG III	6.1	None		None	BP001		5	1	CG10
1711	XYLIDINES, LIQUID / PG II	6.1	None		None	BP001		0.1	None	
1712	ZINC ARSENATE or ZINC ARSENITE or ZINC ARSENATE AND ZINC ARSENITE MIXTURE / PG II	6.1	None		None	BP002		0.5	None	CG7
1713	ZINC CYANIDE / PG I	6.1	None		None	BP002		None	None	CG6, CG7, CR5
1714	ZINC PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CG7, CR5
1715	ACETIC ANHYDRIDE / PG II	8	3		None	BP001		1	None	CG1, CR6, CR19
1716	ACETYL BROMIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	1	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1717	ACETYL CHLORIDE / PG II	3	8		None	BP001		1	None	CG1, CR6, CR19
1718	BUTYL ACID PHOSPHATE / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
11719	CAUSTIC ALKALI LIQUID, N.O.S. / PG II	8	None		274	BP001		1	None	CG18, CR5
11719	CAUSTIC ALKALI LIQUID, N.O.S. / PG III	8	None		274	BP001		5	None	CG18, CR5
1722	ALLYL CHLOROFORMATE / PG I	6.1	3, 8		None	BP001		None	None	CG1, CR6, CR19, CR30
1723	ALLYL IODIDE / PG II	3	8		None	BP001		1	None	CG1, CG10, CR6, CR19
1724	ALLYLTRICHLOROSILANE, STABILIZED / PG II	8	3		None	BP010		None	None	CG1, CR6, CR19
1725	ALUMINIUM BROMIDE, ANHYDROUS / PG II	8	None	The solid hydrated form of this item is not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP002		1	None	CG1, CR6, CR19
1726	ALUMINIUM CHLORIDE, ANHYDROUS / PG II	8	None	The solid hydrated form of this item is not subject to the	None	BP002		1	None	CG1, CR6, CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
				Dangerous Goods Ordinance						
				(Cap. 295).						
	AMMONIUM									CG1, CG2,
1727	HYDROGENDIFLUORIDE,	8	None		None	BP002		1	None	CR5, CR6,
	SOLID / PG II									CR19
1728	AMYLTRICHLOROSILANE / PG	8	None		None	BP010		None	None	CG1, CR6,
	п	0	None		None	BP010		None	None	CR19
1720	ANICOVI CIH ODIDE / DC H	0	Mana		Nama	DD002		1	NI	CG1, CR6,
1/29	ANISOYL CHLORIDE / PG II	8	None		None	BP002		1	None	CR19
1720	ANTIMONY PENTACHLORIDE,	8	Mana		Mana	DD001		1	NI	CG1, CR6,
1730	LIQUID / PG II	8	None		None	BP001		1	None	CR19
1721	ANTIMONY PENTACHLORIDE	0	Mana		Mana	DD001		1	None	CG1, CR6,
1731	SOLUTION / PG II	8	None		None	BP001		1	None	CR19
1721	ANTIMONY PENTACHLORIDE	0	NI		N	DD001		-	NI	CG1, CR6,
1731	SOLUTION / PG III	8	None		None	BP001		5	None	CR19
1500	ANTIMONY PENTAFLUORIDE /	0	<i>c</i> 1			DD001				CG1, CR6,
1732	PG II	8	6.1		None	BP001		1	None	CR19, CR31
1500	ANTIMONY TRICHLORIDE / PG		N		N	DD002		1	NT	CG1, CR6,
1733	II	8	None		None	BP002		1	None	CR19
150			NY.			DD004			<b>.</b>	CG1, CR6,
1736	BENZOYL CHLORIDE / PG II	8	None		None	BP001		1	None	CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cracifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1727	BENZYL BROMIDE / PG II	6.1	8		None	BP001		None	None	CG1, CG10,
1/3/	DENZIL BROWIDE / FO II	0.1	0		None	DF001		None	None	CR6, CR19
1738	BENZYL CHLORIDE / PG II	6.1	8		None	BP001		None	None	CG1, CG10,
1730	BENEFIE CHECKIBE / TO II	0.1	Ü		TVOIC	Broot		TVOILE	TVOILE	CR6, CR19
1739	BENZYL CHLOROFORMATE /	8	None		None	BP001		None	None	CG1, CR6,
	PG I									CR19
1740	HYDROGENDIFLUORIDES,	8	None		None	BP002		1	None	CG1, CR5, CR6,
-	SOLID, N.O.S. / PG II									CR19
1740	HYDROGENDIFLUORIDES,	8	None		None	BP002		5	None	CG1, CR5, CR6,
	SOLID, N.O.S. / PG III							_		CR19
1741	BORON TRICHLORIDE	2.3	8		None	BP200		None	None	CR7
1742	BORON TRIFLUORIDE ACETIC	8	None		None	BP001		1	None	CG1, CR6,
1742	ACID COMPLEX, LIQUID / PG II	0	TVOILE		TVOIC	<b>D1</b> 001		1	Tione	CR19
	BORON TRIFLUORIDE									CG1, CR6,
1743	PROPIONIC ACID COMPLEX,	8	None		None	BP001		1	None	CR19
	LIQUID / PG II									ent)
	BROMINE or BROMINE									CG1, CR3, CR4,
1744	SOLUTION / PG I	8	6.1		None	BP804		None	None	CR6, CR19,
										CR31
1745	BROMINE PENTAFLUORIDE /	5.1	6.1, 8		None	BP209		None	None	CG1, CR4, CR6,
1, 13	PG I	0.1	0.1, 0		1,0110	D1 207		1,0110	110110	CR19, CR31

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1746	BROMINE TRIFLUORIDE / PG I	5.1	6.1, 8		None	BP209		None	None	CG1, CR4, CR6, CR19, CR31
1747	BUTYLTRICHLOROSILANE / PG II	8	3		None	BP010		None	None	CG1, CR6, CR19
1748	CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE, DRY / PG II	5.1	None	With more than 39% available chlorine (8.8% available oxygen)	None	BP002		1	1	CG8, CR5, CR10, CR19, CR28
1748	CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE, DRY / PG III	5.1	None	With more than 39% available chlorine (8.8% available oxygen)	None	BP002		5	5	CG8, CR5, CR10, CR19, CR28
1749	CHLORINE TRIFLUORIDE	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
1750	CHLOROACETIC ACID SOLUTION / PG II	6.1	8		None	BP001		0.1	None	CG1, CR6, CR19
1751	CHLOROACETIC ACID, SOLID / PG II	6.1	8		None	BP002		0.5	None	CG1, CR6, CR19
1752	CHLOROACETYL CHLORIDE / PG I	6.1	8		354	BP602		None	None	CG1, CR6, CR19
1753	CHLOROPHENYLTRICHLOROS ILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1754	CHLOROSULPHONIC ACID / PG	8	None	With or without sulphur trioxide	None	BP001		None	None	CG1, CR6,
1734	I	0	None	with of without sulphul thoxide	None	<b>D</b> F001		None	None	CR19
1755	CHROMIC ACID SOLUTION /	8	None		None	BP001		1	None	CG1, CR6,
1733	PG II	0	Trone		rvone	<b>D1</b> 001		1	Tione	CR19, CR31
1755	CHROMIC ACID SOLUTION /	8	None		None	BP001		5	None	CG1, CR6,
	PG III		1 (0110		1,0116	27 001			110110	CR19, CR31
11756	CHROMIC FLUORIDE, SOLID /	8	None		None	BP002		1	None	CG1, CR5, CR6,
	PG II		- 1,0		- , , ,				- 1, 5 5	CR19
1757	CHROMIC FLUORIDE	8	None		None	BP001		1	None	CG1, CR6,
	SOLUTION / PG II	_								CR19
1757	CHROMIC FLUORIDE	8	None		None	BP001		5	None	CG1, CR6,
	SOLUTION / PG III									CR19
	CHROMIUM OXYCHLORIDE /									CG1, CR3, CR4,
1758	PG I	8	None		None	BP001		None	None	CR6, CR19,
										CR31
1759	CORROSIVE SOLID, N.O.S. / PG	8	None		274	BP002		None	None	
1759	CORROSIVE SOLID, N.O.S. / PG	8	None		274	BP002		1	1	
1759	CORROSIVE SOLID, N.O.S. / PG	8	None		274	BP002		5	1	
	III									

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cu a sifi a di ana	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1760	CORROSIVE LIQUID, N.O.S. / PG I	8	None		274	BP001		None	None	
1760	CORROSIVE LIQUID, N.O.S. / PG II	8	None		274	BP001		1	1	
11760	CORROSIVE LIQUID, N.O.S. / PG III	8	None		274	BP001		5	1	
1761	CUPRIETHYLENEDIAMINE SOLUTION / PG II	8	6.1		None	BP001		1	None	CR5
1761	CUPRIETHYLENEDIAMINE SOLUTION / PG III	8	6.1		None	BP001		5	None	CR5
1762	CYCLOHEXENYLTRICHLOROS ILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
1763	CYCLOHEXYLTRICHLOROSIL ANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
1764	DICHLOROACETIC ACID / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1765	DICHLOROACETYL CHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1766	DICHLOROPHENYLTRICHLOR OSILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C*6" 4*	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1767	DIETHYLDICHLOROSILANE / PG II	8	3		None	BP010		None	None	CG1, CR6, CR19
1768	DIFLUOROPHOSPHORIC ACID, ANHYDROUS / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1769	DIPHENYLDICHLOROSILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
1770	DIPHENYLMETHYL BROMIDE / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
1771	DODECYLTRICHLOROSILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
1773	FERRIC CHLORIDE, ANHYDROUS / PG III	8	None	The solid hydrated form of this item is not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP002		5	None	CG1, CR6, CR19
1774	FIRE EXTINGUISHER CHARGES / PG II	8	None	Corrosive liquid	None	BP001		1	None	
1775	FLUOROBORIC ACID / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1776	FLUOROPHOSPHORIC ACID, ANHYDROUS / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	l	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1777	FLUOROSULPHONIC ACID / PG	8	None		None	BP001		None	None	CG1, CR6,
1///	I	0	None		None	DF001		None	None	CR19
1778	FLUOROSILICIC ACID / PG II	8	None		None	BP001		1	None	CG1, CR6,
1770	I LOOKOSILICIC ACID / I O II	0	Trone		TVOILE	<b>B</b> 1 001		1	TVOIC	CR19
1779	FORMIC ACID / PG II	8	3	With more than 85% acid, by	None	BP001		1	1	CG1, CR6,
	TOTAL TIELD / TO II			mass	TYONG	21 001		1	1	CR19
1780	FUMARYL CHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6,
										CR19
1781	HEXADECYLTRICHLOROSILA	8	None		None	BP010		None	None	CG1, CR6,
	NE / PG II									CR19
1782	HEXAFLUOROPHOSPHORIC	8	None		None	BP001		1	None	CG1, CR6,
	ACID / PG II									CR19
1783	HEXAMETHYLENEDIAMINE	8	None		None	BP001		1	None	CR5
-	SOLUTION / PG II									
11783	HEXAMETHYLENEDIAMINE	8	None		None	BP001		5	None	CR5
-	SOLUTION / PG III									
1784	HEXYLTRICHLOROSILANE /	8	None		None	BP010		None	None	CG1, CR6,
-	PG II									CR19
	HYDROFLUORIC ACID AND					D D 0 0 4				CG1, CR6,
	SULPHURIC ACID MIXTURE /	8	6.1		None	BP001		None	None	CR19
	PG I									

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1787	HYDRIODIC ACID / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1787	HYDRIODIC ACID / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
1788	HYDROBROMIC ACID / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1788	HYDROBROMIC ACID / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
1789	HYDROCHLORIC ACID / PG II	8	None		None	BP001		1	1	CG1, CR6, CR19
1789	HYDROCHLORIC ACID / PG III	8	None		None	BP001		5	1	CG1, CR6, CR19
1790	HYDROFLUORIC ACID / PG I	8	6.1	With more than 60% hydrogen fluoride	None	BP802	SP79	None	None	CG1, CR6, CR19
1790	HYDROFLUORIC ACID / PG II	8	6.1	With not more than 60% hydrogen fluoride	None	BP001		1	None	CG1, CR6, CR19
1791	HYPOCHLORITE SOLUTION / PG II	8	None	Mixtures of a Hypochlorite with an ammonium salt is prohibited.	274	BP001	SP10	1	1	CG8
1791	HYPOCHLORITE SOLUTION / PG III	8	None	Mixtures of a Hypochlorite with an ammonium salt is prohibited.	274	BP001		5	5	CG8

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crost finations	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
	IODINE MONOCHLORIDE,									CG1, CR3, CR4,
1792	SOLID / PG II	8	None		None	BP002		1	None	CR6, CR19,
	SOLID / TO II									CR31
1793	ISOPROPYL ACID PHOSPHATE	8	None		None	BP001		5	None	CG1, CR6,
1,75	/ PG III		1,0116		1,0116	21001			110110	CR19
										CG1, CG7,
1794	LEAD SULPHATE / PG II	8	None	With more than 3% free acid	None	BP002		1	None	CG9, CR6,
										CR19
1796	NITRATING ACID MIXTURE /	8	5.1	With more than 50% nitric acid	None	BP001		None	None	CG1, CR4, CR6,
	PG I									CR19
1796	NITRATING ACID MIXTURE /	8	None	With not more than 50% nitric	None	BP001		1	None	CG1, CR6,
	PG II			acid						CR19
	NITROHYDROCHLORIC ACID /	_								CG1, CR3, CR4,
1798	PG I	8	None		None	BP802		None	None	CR6, CR19,
										CR31
1799	NONYLTRICHLOROSILANE /	8	None		None	BP010		None	None	CG1, CR6,
-	PG II									CR19
1800	OCTADECYLTRICHLOROSILA	8	None		None	BP010		None	None	CG1, CR6,
	NE / PG II									CR19
1801	OCTYLTRICHLOROSILANE /	8	None		None	BP010		None	None	CG1, CR6,
	PG II									CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charle and and	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
1802	PERCHLORIC ACID / PG II	8	5.1	With not more than 50% acid, by mass	None	BP001		1	None	CG1, CR4, CR6, CR19
1803	PHENOLSULPHONIC ACID, LIQUID / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1804	PHENYLTRICHLOROSILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
1805	PHOSPHORIC ACID, SOLUTION / PG III	8	None		None	BP001		5	1	CG1, CR6, CR19
1806	PHOSPHORUS PENTACHLORIDE / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19, CR31
1807	PHOSPHORUS PENTOXIDE / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
1808	PHOSPHORUS TRIBROMIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1809	PHOSPHORUS TRICHLORIDE / PG I	6.1	8		354	BP602		None	None	CG1, CR6, CR19
1810	PHOSPHORUS OXYCHLORIDE / PG I	6.1	8		354	BP602		None	None	CG1, CR6, CR19
1811	POTASSIUM HYDROGEN DIFLUORIDE, SOLID / PG II	8	6.1		None	BP002		1	None	CG1, CR5, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1812	POTASSIUM FLUORIDE, SOLID / PG III	6.1	None		None	BP002		5	None	CR5
11813	POTASSIUM HYDROXIDE, SOLID / PG II	8	None		None	BP002		1	1	CG18, CR5
1814	POTASSIUM HYDROXIDE SOLUTION / PG II	8	None		None	BP001		1	1	CG18, CR5
1814	POTASSIUM HYDROXIDE SOLUTION / PG III	8	None		None	BP001		5	1	CG18, CR5
1815	PROPIONYL CHLORIDE / PG II	3	8		None	BP001		1	None	CG1, CR6, CR19
1816	PROPYLTRICHLOROSILANE / PG II	8	3		None	BP010		None	None	CG1, CR6, CR19
1817	PYROSULPHURYL CHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1818	SILICON TETRACHLORIDE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
1819	SODIUM ALUMINATE SOLUTION / PG II	8	None		None	BP001		1	None	CG18, CR5
11819	SODIUM ALUMINATE SOLUTION / PG III	8	None		None	BP001		5	None	CG18, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1823	SODIUM HYDROXIDE, SOLID / PG II	8	None		None	BP002		1	1	CG18, CR5
1824	SODIUM HYDROXIDE SOLUTION / PG II	8	None		None	BP001		1	1	CG18, CR5
1824	SODIUM HYDROXIDE SOLUTION / PG III	8	None		None	BP001		5	1	CG18, CR5
1825	SODIUM MONOXIDE / PG II	8	None		None	BP002		1	None	CG18, CR5
1826	NITRATING ACID MIXTURE, SPENT / PG I	8	5.1	With more than 50% nitric acid	None	BP001		None	None	CG1, CR4, CR6, CR19
1826	NITRATING ACID MIXTURE, SPENT / PG II	8	None	With not more than 50% nitric acid	None	BP001		1	None	CG1, CR6, CR19
1827	STANNIC CHLORIDE, ANHYDROUS / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1828	SULPHUR CHLORIDES / PG I	8	None		None	BP602		None	None	CG1, CR6, CR19
11829	SULPHUR TRIOXIDE, STABILIZED / PG I	8	None		None	BP001		None	None	CG1, CR6, CR19
1830	SULPHURIC ACID / PG II	8	None	With more than 51% acid	None	BP001		1	1	CG1, CR6, CR19
1831	SULPHURIC ACID, FUMING / PG I	8	6.1		None	BP602		None	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	1	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1832	SULPHURIC ACID, SPENT / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1833	SULPHUROUS ACID / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1834	SULPHURYL CHLORIDE / PG I	6.1	8		354	BP602		None	None	CG1, CR6, CR19
1835	TETRAMETHYLAMMONIUM HYDROXIDE SOLUTION / PG II	8	None		None	BP001		1	None	CG2, CG18, CR5
1835	TETRAMETHYLAMMONIUM HYDROXIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG2, CG18, CR5
1836	THIONYL CHLORIDE / PG I	8	None		None	BP802		None	None	CG1, CR6, CR19
1837	THIOPHOSPHORYL CHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1838	TITANIUM TETRACHLORIDE / PG I	6.1	8		354	BP602		None	None	CG1, CG7, CR6, CR19
1839	TRICHLOROACETIC ACID / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
1840	ZINC CHLORIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG1, CG7, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1841	ACETALDEHYDE AMMONIA / PG III	9	None		None	BP002		5	None	
1843	AMMONIUM DINITRO-o- CRESOLATE, SOLID / PG II	6.1	None		None	BP002		0.5	None	CG2, CR4
1846	CARBON TETRACHLORIDE / PG II	6.1	None		None	BP001		0.1	None	CG10
11847	POTASSIUM SULPHIDE, HYDRATED / PG II	8	None	With not less than 30% water of crystallization	None	BP002		1	None	CG18, CR5
1848	PROPIONIC ACID / PG III	8	None	With not less than 10% and less than 90% acid, by mass	None	BP001		5	None	CG1, CR6, CR19
1849	SODIUM SULPHIDE, HYDRATED / PG II	8	None	With not less than 30% water	None	BP002		1	None	CG18, CR5
1854	BARIUM ALLOYS, PYROPHORIC / PG I	4.2	None		None	BP404	SP31	None	None	CG15
1855	CALCIUM, PYROPHORIC or CALCIUM ALLOYS, PYROPHORIC / PG I	4.2	None		None	BP404	SP31	None	None	
1858	HEXAFLUOROPROPYLENE (also known as REFRIGERANT GAS R 1216)	2.2	None		None	BP200		0.12	None	
1859	SILICON TETRAFLUORIDE	2.3	8		None	BP200		None	None	CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1860	VINYL FLUORIDE, STABILIZED	2.1	None		None	BP200		None	None	CR7
1862	ETHYL CROTONATE / PG II	3	None		None	BP001		1	None	
1863	FUEL, AVIATION, TURBINE ENGINE / PG I	3	None		None	BP001		0.5	None	
1863	FUEL, AVIATION, TURBINE ENGINE / PG II	3	None		None	BP001		1	None	
11863	FUEL, AVIATION, TURBINE ENGINE / PG III	3	None		None	BP001		5	None	
1865	n-PROPYL NITRATE / PG II	3	None		None	BP001		1	None	
1866	RESIN SOLUTION / PG I	3	None	Flammable	None	BP001		0.5	None	
1866	RESIN SOLUTION / PG II	3	None	Flammable	None	BP001		5	None	
1866	RESIN SOLUTION / PG III	3	None	Flammable	None	BP001		5	None	
1868	DECABORANE / PG II	4.1	6.1		None	BP002	SP31	1	None	CR3
1869	MAGNESIUM or MAGNESIUM ALLOYS / PG III	4.1		With more than 50% magnesium in pellets, turnings or ribbons.  Bars, ingots or sticks are not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP002	SP100	5	1	CR3, CR5, CR6, CR21
1870	POTASSIUM BOROHYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1871	TITANIUM HYDRIDE / PG II	4.1	None		None	BP410	SP31 SP40	1	None	
1872	LEAD DIOXIDE / PG III	5.1	None		None	BP002		5	None	CG7, CG9
1873	PERCHLORIC ACID / PG I	5.1	8	With more than 50% but not more than 72% acid, by mass. Perchloric acid with more than 72% acid, by mass, is prohibited.	None	BP502	SP28	None	None	CG1, CR4, CR6, CR19
1884	BARIUM OXIDE / PG III	6.1	None		None	BP002		5	None	
1885	BENZIDINE / PG II	6.1	None		None	BP002		0.5	None	
1886	BENZYLIDENE CHLORIDE / PG II	6.1	None		None	BP001		0.1	None	
1887	BROMOCHLOROMETHANE / PG III	6.1	None		None	BP001		5	None	CG10
1888	CHLOROFORM / PG III	6.1	None		None	BP001		5	None	CG10
1889	CYANOGEN BROMIDE / PG I	6.1	8		None	BP002	SP31	None	None	CG6, CR5
1891	ETHYL BROMIDE / PG II	3	6.1		None	BP001		1	None	CG10
1892	ETHYLDICHLOROARSINE / PG I	6.1	None		354	BP602		None	None	
1894	PHENYLMERCURIC HYDROXIDE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (Ap	pendix 5)	LQ	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LŲ	MIPS	2.3.3
1895	PHENYLMERCURIC NITRATE / PG II	6.1	None		None	BP002		0.5	None	CG7, CG11
1897	TETRACHLOROETHYLENE / PG III	6.1	None		None	BP001		5	None	CG10
1898	ACETYL IODIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1902	DIISOOCTYL ACID PHOSPHATE / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
11903	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. / PG I	8	None		274	BP001		None	None	
1903	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. / PG II	8	None		274	BP001		1	1	
11903	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. / PG III	8	None		274	BP001		5	1	
1905	SELENIC ACID / PG I	8	None		None	BP002		None	None	CG1, CR6, CR19
1906	SLUDGE ACID / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
1907	SODA LIME / PG III	8	None	With more than 4% sodium hydroxide	None	BP002		5	None	CG18, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	1	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •p• /•	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1908	CHLORITE SOLUTION / PG II	8	None	Ammonium Chlorite and its aqueous solutions and mixtures of a chlorite with an ammonium salt are prohibited.	274	BP001		1	None	CG5, CR31
1908	CHLORITE SOLUTION / PG III	8	None	Ammonium Chlorite and its aqueous solutions and mixtures of a chlorite with an ammonium salt are prohibited.	274	BP001		5	None	CG5, CR31
1911	DIBORANE	2.3	2.1		None	BP200		None	None	CR16, CR7
1912	METHYL CHLORIDE AND METHYLENE CHLORIDE MIXTURE	2.1	None		228	BP200		None	None	CR7
1913	NEON, REFRIGERATED LIQUID	2.2	None		None	BP203		0.12	None	
1914	BUTYL PROPIONATES / PG III	3	None		None	BP001		5	None	
1915	CYCLOHEXANONE / PG III	3	None		None	BP001		5	None	
1916	2,2'-DICHLORODIETHYL ETHER / PG II	6.1	3		None	BP001		0.1	None	
1917	ETHYL ACRYLATE, STABILIZED / PG II	3	None		None	BP001		1	None	
1918	ISOPROPYLBENZENE / PG III	3	None		None	BP001		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1919	METHYL ACRYLATE, STABILIZED / PG II	3	None		None	BP001		1	None	
1920	NONANES / PG III	3	None		None	BP001		5	None	
1921	PROPYLENEIMINE, STABILIZED / PG I	3	6.1		None	BP001		None	None	
1922	PYRROLIDINE / PG II	3	8		None	BP001		1	None	CG18, CR5
1923	CALCIUM DITHIONITE (also known as CALCIUM HYDROSULPHITE) / PG II	4.2	None		None	BP410	SP31	None	None	
	METHYL MAGNESIUM BROMIDE IN ETHYL ETHER / PG I	4.3	3		None	BP402		None	None	
	POTASSIUM DITHIONITE (also known as POTASSIUM HYDROSULPHITE) / PG II	4.2	None		None	BP410	SP31	None	None	
1932	ZIRCONIUM, SCRAP / PG III	4.2	None		None	BP002	SP31	None	None	
1935	CYANIDE SOLUTION, N.O.S. / PG I	6.1	None		274	BP001		None	None	CG6, CR5
1935	CYANIDE SOLUTION, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	CG6, CR5

**(1) (2) (3) (4) (5) (6) (7) (9) (10) (8)** Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN **Compatibility Specifications MPS** LQ Class Packing Group (if any) Hazard (Appendix 4) BP 2.3.3 No. SP CYANIDE SOLUTION, N.O.S. / 1935 274 5 CG6, CR5 6.1 None BP001 None PG III BROMOACETIC ACID CG1, CR6, 1938 8 BP001 None None 1 None SOLUTION / PG II CR19 BROMOACETIC ACID CG1, CR6, 1938 8 BP001 5 None None None SOLUTION / PG III CR19 PHOSPHORUS OXYBROMIDE / CG1, CR6, 1939 None None BP002 1 None PG II CR19 CG1, CR6, 1940 THIOGLYCOLIC ACID / PG II BP001 8 None None 1 None CR19 DIBROMODIFLUOROMETHAN 1941 BP001 9 None 5 None None E / PG III With not more than 0.2% CG2, CR4, CR8, combustible substances, CR13, CR15, including any organic substance BP002 CR17, CR20, 1942 AMMONIUM NITRATE / PG III 5.1 None None 5 None calculated as carbon, to the CR25, CR26, exclusion of any other added **CR27** substance Matches that combined with or attached to the box, book or card 1944 MATCHES, SAFETY / PG III 5 4.1 None None BP407 1 that can be ignited by friction only on a prepared surface

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

UN	Proper Shipping Name /	CI.	Subsidiary	G .00 (.	SN	Packing (A <sub>l</sub>	ppendix 5)	Ι.Ο.	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1945	MATCHES, WAX 'VESTA' / PG	4.1	None	Matches that can be ignited by friction either on a prepared surface or on a solid surface	None	BP407		5	1	
1950	AEROSOLS	2.2		This item is pre-packed.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	63	BP207		1	1	
1950	AEROSOLS	2.2		This item is pre-packed.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	63	BP207		1	1	
1950	AEROSOLS	2.2	5.1, 8	This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less	63	BP207		1	1	CG19

<b>(1)</b>	<b>(2)</b>	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	(8)	<b>(9)</b>	<b>(10)</b>
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UN	Proper Shipping Name /	CI.	Subsidiary	G •0• /•	SN	Packing (A <sub>l</sub>	ppendix 5)	Ι.Ο.	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				containing only non-toxic constituents.						
1950	AEROSOLS	2.1		This item is pre-packed.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	63	BP207		1	1	CR7
1950	AEROSOLS	2.1		This item is pre-packed.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	63	BP207		1	1	CR7
1950	AEROSOLS	2.2	5.1	This item is pre-packed.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less	63	BP207		1	1	CG19

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UN No.	Proper Shipping Name / Packing Group (if any)	Class	Subsidiary Hazard	Specifications	SN (Appendix 4)	Packing (A) BP	ppendix 5) SP	LQ	MPS	Compatibility 2.3.3
				containing only non-toxic constituents.						
1950	AEROSOLS	2.2	6.1	This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	63	BP207		0.12	0.12	
1950	AEROSOLS	2.2	6.1, 8	This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less	63	BP207		0.12	0.12	

containing only non-toxic

This item is pre-packed.

of which is 50 ml or less

This item is not subject to the

Dangerous Goods Ordinance

(Cap. 295) if the water capacity

constituents.

**(5)** 

**(6)** 

**(7)** 

BP207

63

**(8)** 

0.12

0.12

**(9)** 

**(10)** 

**(1)** 

1950 AEROSOLS

**(2)** 

**(3)** 

2.1

6.1

**(4)** 

CR7

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '0' 4'	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				containing only non-toxic constituents.						
1950	AEROSOLS	2.1	6.1, 8	This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	63	BP207		0.12	0.12	CR7
1950	AEROSOLS	2.2	5.1, 6.1	This item is pre-packed.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	63	BP207		0.12	0.12	CG19
1950	AEROSOLS	2.2	5.1, 6.1, 8	This item is pre-packed.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less	63	BP207		0.12	0.12	CG19

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				containing only non-toxic constituents.						
1951	ARGON, REFRIGERATED LIQUID	2.2	None		None	BP203		0.12	None	
1952	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE	2.2	None	With not more than 9% ethylene oxide	None	BP200		0.12	None	
1953	COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S.	2.3	2.1		274	BP200		None	None	CR7
1954	COMPRESSED GAS, FLAMMABLE, N.O.S.	2.1	None		274	BP200		None	None	CR7
11955	COMPRESSED GAS, TOXIC, N.O.S.	2.3	None		274	BP200		None	None	CR7
1956	COMPRESSED GAS, N.O.S.	2.2	None		274	BP200		0.12	None	
1957	DEUTERIUM, COMPRESSED	2.1	None		None	BP200		None	None	CR7
1958	1,2-DICHLORO-1,1,2,2- TETRAFLUOROETHANE (also known as REFRIGERANT GAS R 114)	2.2	None		None	BP200		0.12	None	
1959	1,1-DIFLUOROETHYLENE (also known as REFRIGERANT GAS R 1132a)	2.1	None		None	BP200		None	None	CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '0' 4'	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1961	ETHANE, REFRIGERATED LIQUID	2.1	None		None	BP203		None	None	CR7
1962	ETHYLENE	2.1	None		None	BP200		None	None	CR7
1963	HELIUM, REFRIGERATED LIQUID	2.2	None		None	BP203		0.12	None	
1964	HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S.	2.1	None		274	BP200		None	None	CR7
1965	HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S.	2.1	None		274	BP200		None	None	CR7
1966	HYDROGEN, REFRIGERATED LIQUID	2.1	None		None	BP203		None	None	CR16, CR7
1969	ISOBUTANE	2.1	None		None	BP200		None	None	CR7
1970	KRYPTON, REFRIGERATED LIQUID	2.2	None		None	BP203		0.12	None	
1971	METHANE, COMPRESSED	2.1	None	Pure methane only	None	BP200		None	None	CR7
1972	METHANE, REFRIGERATED LIQUID	2.1	None	Pure methane only	None	BP203		None	None	CR7
1973	CHLORODIFLUOROMETHANE AND	2.2	None	With a fixed boiling point, with approximately 49%	None	BP200		0.12	None	
	CHLOROPENTAFLUOROETHA			chlorodifluoromethane						

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	C • 60 4•	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	NE MIXTURE (also known as REFRIGERANT GAS R 502)									
1974	CHLORODIFLUOROBROMOME THANE (also known as REFRIGERANT GAS R 12B1)	2.2	None		None	BP200		0.12	None	
1975	NITRIC OXIDE AND DINITROGEN TETROXIDE MIXTURE (also known as NITRIC OXIDE AND NITROGEN DIOXIDE MIXTURE)	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
1976	OCTAFLUOROCYCLOBUTANE (also known as REFRIGERANT GAS RC 318)	2.2	None		None	BP200		0.12	None	
1977	NITROGEN, REFRIGERATED LIQUID	2.2	None	This gas contained in open cryogenic receptacles with a maximum capacity of 1 litre constructed with glass double walls having the space between the inner and outer wall evacuated (vacuum insulated) is	None	BP203		0.12	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	(	(8)	<b>(9)</b>	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	C	SN	Packing (Appen	dix 5)		MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP S	SP 1	LQ	MPS	2.3.3
				not subject to the Dangerous Goods Ordinance (Cap. 295).						
1978	PROPANE	2.1	None	Goods Gramanee (Cap. 255).	None	BP200	N	one	None	CR7
1982	TETRAFLUOROMETHANE (also known as REFRIGERANT GAS R 14)	2.2	None		None	BP200	0	.12	None	
1983	1-CHLORO-2,2,2- TRIFLUOROETHANE (also known as REFRIGERANT GAS R 133a)	2.2	None		None	BP200	0	.12	None	
1984	TRIFLUOROMETHANE (also known as REFRIGERANT GAS R 23)	2.2	None		None	BP200	0	.12	None	
1986	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. / PG I	3	6.1		274	BP001	N	one	None	
1986	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. / PG II	3	6.1		274	BP001		1	1	
1986	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. / PG III	3	6.1		274	BP001		5	1	
1987	ALCOHOLS, N.O.S. / PG II	3	None		274	BP001		1	1	
1987	ALCOHOLS, N.O.S. / PG III	3	None		274	BP001		5	1	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Appe	endix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1988	ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. / PG I	3	6.1		274	BP001		None	None	
1988	ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. / PG II	3	6.1		274	BP001		1	None	
1988	ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. / PG III	3	6.1		274	BP001		5	None	
1989	ALDEHYDES, N.O.S. / PG I	3	None		274	BP001		None	None	
1989	ALDEHYDES, N.O.S. / PG II	3	None		274	BP001		1	None	
1989	ALDEHYDES, N.O.S. / PG III	3	None		274	BP001		5	None	
1990	BENZALDEHYDE / PG III	9	None		None	BP001		5	None	
1991	CHLOROPRENE, STABILIZED / PG I	3	6.1		None	BP001		None	None	CG10
1992	FLAMMABLE LIQUID, TOXIC, N.O.S. / PG I	3	6.1		274	BP001		None	None	
1992	FLAMMABLE LIQUID, TOXIC, N.O.S. / PG II	3	6.1		274	BP001		1	None	
1992	FLAMMABLE LIQUID, TOXIC, N.O.S. / PG III	3	6.1		274	BP001		5	None	
11993	FLAMMABLE LIQUID, N.O.S. / PG I	3	None		274	BP001		None	None	

Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN Compatibility **Specifications MPS** LQ Class Packing Group (if any) Hazard (Appendix 4) BP SP 2.3.3 No. FLAMMABLE LIQUID, N.O.S. / 1993 3 274 None BP001 1 1 PG II FLAMMABLE LIQUID, N.O.S. / 1993 3 BP001 5 None 274 1 PG III 1994 IRON PENTACARBONYL / PG I 3 6.1 354 BP601 None None Including road oils, and cutback 1999 TARS, LIQUID / PG II 3 None BP001 5 None None bitumens Including road oils, and cutback 1999 TARS, LIQUID / PG III 3 None None BP001 5 None bitumens In block, rods, rolls, sheets and tubes, except scrap. Table tennis balls manufactured from celluloid are not subject to the Dangerous Goods Ordinance 2000 CELLULOID / PG III 4.1 None None BP002 5 None (Cap. 295) where the net mass of each table tennis ball does not exceed 3 g and the total net mass

of table tennis balls does not exceed 500 g per package.

**(5)** 

**(6)** 

**(7)** 

BP002

BP002

None

None

**(8)** 

5

None

SP8

None

None

**(9)** 

**(10)** 

**(1)** 

2001

**(2)** 

COBALT NAPHTHENATES,

POWDER / PG III

2002 CELLULOID, SCRAP / PG III

**(3)** 

4.1

4.2

None

None

**(4)** 

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2004	MAGNESIUM DIAMIDE / PG II	4.2	None		None	BP410	SP31	None	None	
	PLASTICS, NITROCELLULOSE-BASED, SELF-HEATING, N.O.S. / PG III	4.2	None		274	BP002		None	None	
2008	ZIRCONIUM POWDER, DRY / PG I	4.2	None		None	BP404	SP31	None	None	CG15
2008	ZIRCONIUM POWDER, DRY / PG II	4.2	None		None	BP410	SP31	None	None	CG15
2008	ZIRCONIUM POWDER, DRY / PG III	4.2	None		None	BP002	SP31	None	None	CG15
2009	ZIRCONIUM, DRY / PG III	4.2	None	Finished sheets, strip or coiled wire	None	BP002		None	None	CG15
2010	MAGNESIUM HYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	CR5
2011	MAGNESIUM PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
2012	POTASSIUM PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
2013	STRONTIUM PHOSPHIDE / PG I	4.3	6.1		None	BP403	SP31	None	None	CR5
2014	HYDROGEN PEROXIDE, AQUEOUS SOLUTION / PG II	5.1	8	With not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)	None	BP504	SP10	1	None	CG16, CR4, CR27

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '0' ('	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2015	HYDROGEN PEROXIDE, STABILIZED or HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED / PG I	5.1	8	With more than 60% hydrogen peroxide	None	BP501		None	None	CG16, CR4, CR27
2018	CHLOROANILINES, SOLID / PG II	6.1	None		None	BP002		0.5	None	
2019	CHLOROANILINES, LIQUID / PG II	6.1	None		None	BP001		0.1	None	CR5
2020	CHLOROPHENOLS, SOLID / PG III	6.1	None		205	BP002		5	None	
2021	CHLOROPHENOLS, LIQUID / PG III	6.1	None		None	BP001		5	None	
2022	CRESYLIC ACID / PG II	6.1	8		None	BP001		0.1	None	
2023	EPICHLOROHYDRIN / PG II	6.1	3		279	BP001		0.1	None	
2024	MERCURY COMPOUND, LIQUID, N.O.S. / PG I	6.1	None	Cinnabar is not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP001		None	None	CG7, CG11
2024	MERCURY COMPOUND, LIQUID, N.O.S. / PG II	6.1	None	Cinnabar is not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP001		0.1	None	CG7, CG11

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
12024	MERCURY COMPOUND, LIQUID, N.O.S. / PG III	6.1	None	Cinnabar is not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP001		5	None	CG7, CG11
2025	MERCURY COMPOUND, SOLID, N.O.S. / PG I	6.1	None	Cinnabar is not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		None	None	CG7, CG11
12025	MERCURY COMPOUND, SOLID, N.O.S. / PG II	6.1	None	Cinnabar is not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		0.5	None	CG7, CG11
2025	MERCURY COMPOUND, SOLID, N.O.S. / PG III	6.1	None	Cinnabar is not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		5	None	CG7, CG11
2026	PHENYLMERCURIC COMPOUND, N.O.S. / PG I	6.1	None		274	BP002		None	None	CG7, CG11
2026	PHENYLMERCURIC COMPOUND, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	CG7, CG11
2026	PHENYLMERCURIC COMPOUND, N.O.S. / PG III	6.1	None		274	BP002		5	None	CG7, CG11
2027	SODIUM ARSENITE, SOLID / PG II	6.1	None		None	BP002		0.5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
12029	HYDRAZINE, ANHYDROUS / PG I	8	3, 6.1		None	BP001		None	None	CG18, CR5, CR30
12030	HYDRAZINE, AQUEOUS SOLUTION / PG I	8	6.1	With more than 37% hydrazine, by mass	None	BP001		None	None	CG18, CR5
2030	HYDRAZINE, AQUEOUS SOLUTION / PG II	8	6.1	With more than 37% hydrazine, by mass	None	BP001		1	None	CG18, CR5
12030	HYDRAZINE, AQUEOUS SOLUTION / PG III	8	6.1	With more than 37% hydrazine, by mass	None	BP001		5	None	CG18, CR5
2031	NITRIC ACID / PG I	8	5.1	Other than red fuming. With more than 70% nitric acid.	None	BP001		None	None	CG1, CR3, CR4, CR6, CR19, CR31
2031	NITRIC ACID / PG II	8	5.1	Other than red fuming. With at least 65%, but not more than 70% nitric acid.	None	BP001		1	None	CG1, CR3, CR4, CR6, CR19, CR31
2031	NITRIC ACID / PG II	8	None	Other than red fuming. With less than 65% nitric acid.	None	BP001		1	None	CG1, CR6, CR19
2032	NITRIC ACID, RED FUMING / PG I	8	5.1, 6.1		None	BP602		None	None	CG1, CR3, CR4, CR6, CR19, CR31
2033	POTASSIUM MONOXIDE / PG II	8	None		None	BP002		1	None	CG18, CR5

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

UN	Proper Shipping Name /	- CI	Subsidiary	G •0• (•	SN	Packing (A <sub>]</sub>	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2035	1,1,1-TRIFLUOROETHANE (also known as REFRIGERANT GAS R 143a)	2.1	None		None	BP200		None	None	CR7
2036	XENON	2.2	None		None	BP200		0.12	None	
2037	RECEPTACLES, SMALL, CONTAINING GAS (also known as GAS CARTRIDGES)	2.2		Without a release device, non-refillable. This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	None	BP003	SP17	1	1	
	RECEPTACLES, SMALL, CONTAINING GAS (also known as GAS CARTRIDGES)	2.1		Without a release device, non-refillable. This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	None	BP003	SP17	1	1	CR7

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

UN	Proper Shipping Name /	CI	Subsidiary	Cl •6• /•	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	RECEPTACLES, SMALL, CONTAINING GAS (also known as GAS CARTRIDGES)	2.2		Without a release device, non-refillable. This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	None	BP003	SP17	1	1	CG19
2037	RECEPTACLES, SMALL, CONTAINING GAS (also known as GAS CARTRIDGES)	2.3		Without a release device, non-refillable. This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	None	BP003	SP17	0.12	None	CR7
2037	RECEPTACLES, SMALL, CONTAINING GAS (also known as GAS CARTRIDGES)	2.3	8	Without a release device, non-refillable. This item is pre-packed. This item is not subject to the	None	BP003	SP17	0.12	None	CR7

UN	Proper Shipping Name /	- CI	Subsidiary	G 100 (1	SN	Packing (A	ppendix 5)		Mag	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				Dangerous Goods Ordinance						
				(Cap. 295) if the water capacity						
				of which is 50 ml or less						
				containing only non-toxic						
				constituents.						
				Without a release device, non-						
				refillable.						
				This item is pre-packed.						
	RECEPTACLES, SMALL,			This item is not subject to the						
2037	CONTAINING GAS (also known	2.3	2.1	Dangerous Goods Ordinance	None	BP003	SP17	0.12	None	CR7

**(5)** 

**(6)** 

**(7)** 

**(8)** 

**(9)** 

**(10)** 

**(2)** 

**(1)** 

**(4)** 

**(3)** 

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	- CI	Subsidiary	G .60 (.	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				containing only non-toxic constituents.						
2037	RECEPTACLES, SMALL, CONTAINING GAS (also known as GAS CARTRIDGES)	2.3		Without a release device, non-refillable. This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic constituents.	None	BP003	SP17	0.12	None	CG19, CR7
2037	RECEPTACLES, SMALL, CONTAINING GAS (also known as GAS CARTRIDGES)	2.3	5.1, 8	Without a release device, non-refillable. This item is pre-packed. This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if the water capacity of which is 50 ml or less containing only non-toxic	None	BP003	SP17	0.12	None	CG19, CR7

constituents.

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		<b>(8)</b>	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	Cl • p• . / •	SN	Packing (Append	dix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP S	SP	LQ	MPS	2.3.3
2038	DINITROTOLUENES, LIQUID / PG II	6.1	None		None	BP001		0.1	None	
2044	2,2-DIMETHYLPROPANE	2.1	None		None	BP200		None	None	CR7
2045	ISOBUTYL ALDEHYDE (also known as ISOBUTYRALDEHYDE) / PG II	3	None		None	BP001		1	None	
2046	CYMENES / PG III	3	None		None	BP001		5	None	
2047	DICHLOROPROPENES / PG II	3	None		None	BP001		1	None	
2047	DICHLOROPROPENES / PG III	3	None		None	BP001		5	None	
2048	DICYCLOPENTADIENE / PG III	3	None		None	BP001		5	None	
2049	DIETHYLBENZENE / PG III	3	None		None	BP001		5	None	
2050	DIISOBUTYLENES, ISOMERIC COMPOUNDS / PG II	3	None		None	BP001		1	None	
2051	2-DIMETHYLAMINOETHANOL / PG II	8	3		None	BP001		1	None	CR5
2052	DIPENTENE / PG III	3	None		None	BP001		5	None	
2053	METHYL ISOBUTYL CARBINOL / PG III	3	None		None	BP001		5	None	
2054	MORPHOLINE / PG I	8	3		None	BP001		None	None	
2055	STYRENE MONOMER, STABILIZED / PG III	3	None		None	BP001		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2056	TETRAHYDROFURAN / PG II	3	None		None	BP001		1	None	
2057	TRIPROPYLENE / PG II	3	None		None	BP001		1	None	
2057	TRIPROPYLENE / PG III	3	None		None	BP001		5	None	
2058	VALERALDEHYDE / PG II	3	None		None	BP001		1	None	
2059	NITROCELLULOSE SOLUTION, FLAMMABLE / PG I	3	None	With not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose	198	BP001		None	None	
2059	NITROCELLULOSE SOLUTION, FLAMMABLE / PG II	3		With not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose	198	BP001		1	None	
2059	NITROCELLULOSE SOLUTION, FLAMMABLE / PG III	3		With not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose	198	BP001		5	None	
2067	AMMONIUM NITRATE BASED FERTILIZER / PG III	5.1	None		None	BP002		5	1	CG2, CR4, CR8, CR13, CR15, CR17, CR20, CR25, CR26, CR27
2073	AMMONIA SOLUTION	2.2	None	Relative density less than 0.880 at 15°C in water, with more than	None	BP200		0.12	None	CG2, CG18, CR5, CR16

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				35% but not more than 50%						
				ammonia						
2074	ACRYLAMIDE, SOLID / PG III	6.1	None		None	BP002		5	None	
2075	CHLORAL, ANHYDROUS, STABILIZED / PG II	6.1	None		None	BP001		0.1	None	
2076	CRESOLS, LIQUID / PG II	6.1	8		None	BP001		0.1	None	
2077	alpha-NAPHTHYLAMINE / PG III	6.1	None		None	BP002		5	None	
2078	TOLUENE DIISOCYANATE / PG II	6.1	None		279	BP001		0.1	None	
2079	DIETHYLENETRIAMINE / PG II	8	None		None	BP001		1	None	CG18, CR5
2187	CARBON DIOXIDE, REFRIGERATED LIQUID	2.2	None		None	BP203		0.12	None	
2188	ARSINE	2.3	2.1		None	BP200		None	None	CR7
2189	DICHLOROSILANE	2.3	2.1, 8		None	BP200		None	None	CR7
2190	OXYGEN DIFLUORIDE, COMPRESSED	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
2191	SULPHURYL FLUORIDE	2.3	None		None	BP200		None	None	CR7
2192	GERMANE	2.3	2.1		None	BP200		None	None	CR7
	HEXAFLUOROETHANE (also									
2193	known as REFRIGERANT GAS R 116)	2.2	None		None	BP200		0.12	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	- CI	Subsidiary	C •0• /•	SN	Packing (Ap	pendix 5)	Ι.Ο.	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2194	SELENIUM HEXAFLUORIDE	2.3	8		None	BP200		None	None	CR7
2195	TELLURIUM HEXAFLUORIDE	2.3	8		None	BP200		None	None	CR7
2196	TUNGSTEN HEXAFLUORIDE	2.3	8		None	BP200		None	None	CR7
2197	HYDROGEN IODIDE, ANHYDROUS	2.3	8		None	BP200		None	None	CR7
2198	PHOSPHORUS PENTAFLUORIDE	2.3	8		None	BP200		None	None	CR7
2199	PHOSPHINE	2.3	2.1		None	BP200		None	None	CR7
2200	PROPADIENE, STABILIZED	2.1	None		None	BP200		None	None	CR7
2201	NITROUS OXIDE, REFRIGERATED LIQUID	2.2	5.1		None	BP203		None	None	CG19
2202	HYDROGEN SELENIDE, ANHYDROUS	2.3	2.1		None	BP200		None	None	CR7
2203	SILANE	2.1	None		None	BP200		None	None	CR14, CR16, CR7
2204	CARBONYL SULPHIDE	2.3	2.1		None	BP200		None	None	CR7
2205	ADIPONITRILE / PG III	6.1	None		None	BP001		5	None	CG6
2206	ISOCYANATES, TOXIC, N.O.S. or ISOCYANATE SOLUTION, TOXIC, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifiastiana	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	ISOCYANATES, TOXIC, N.O.S. or ISOCYANATE SOLUTION, TOXIC, N.O.S. / PG III	6.1	None		274	BP001		5	None	
2208	CALCIUM HYPOCHLORITE MIXTURE, DRY / PG III	5.1	None	With more than 10% but not more than 39% available chlorine	None	BP002		5	5	CG8, CR5, CR10, CR19, CR28
2209	FORMALDEHYDE SOLUTION / PG III	8	None	With not less than 25% formaldehyde	None	BP001		5	None	
2210	MANEB or MANEB PREPARATION / PG III	4.2	4.3	With not less than 60% maneb	273	BP002	SP100	None	None	
2211	POLYMERIC BEADS, EXPANDABLE / PG III	9	None	Evolving flammable vapour	382	BP002		5	None	CR30
2213	PARAFORMALDEHYDE / PG III	4.1	None		None	BP002		5	None	
2214	PHTHALIC ANHYDRIDE / PG III	8	None	With more than 0.05% of maleic anhydride	None	BP002		5	None	CG1, CR6, CR19
2215	MALEIC ANHYDRIDE / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
12215	MALEIC ANHYDRIDE, MOLTEN / PG III	8	None		None			None	None	CG1, CR6, CR19
2218	ACRYLIC ACID, STABILIZED / PG II	8	3		None	BP001		1	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2219	ALLYL GLYCIDYL ETHER / PG III	3	None		None	BP001		5	None	
2222	ANISOLE / PG III	3	None		None	BP001		5	None	
2224	BENZONITRILE / PG II	6.1	None		None	BP001		0.1	None	CR5
2225	BENZENESULPHONYL CHLORIDE / PG III	8	None		None	BP001		5	None	CG1
2226	BENZOTRICHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2227	n-BUTYL METHACRYLATE, STABILIZED / PG III	3	None		None	BP001		5	None	
2232	2-CHLOROETHANAL / PG I	6.1	None		354	BP602		None	None	
2233	CHLOROANISIDINES / PG III	6.1	None		None	BP002		5	None	
2234	CHLOROBENZOTRIFLUORIDES / PG III	3	None		None	BP001		5	None	CG10
2235	CHLOROBENZYL CHLORIDES, LIQUID / PG III	6.1	None		None	BP001		5	None	
2236	3-CHLORO-4-METHYLPHENYL ISOCYANATE, LIQUID / PG II	6.1	None		None	BP001		0.1	None	
2237	CHLORONITROANILINES / PG III	6.1	None		None	BP002		5	None	
2238	CHLOROTOLUENES / PG III	3	None		None	BP001		5	None	CG10

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2239	CHLOROTOLUIDINES, SOLID / PG III	6.1	None		None	BP002		5	None	
2240	CHROMOSULPHURIC ACID / PG I	8	None		None	BP001		None	None	CG1, CR3, CR4, CR6, CR19, CR31
2241	CYCLOHEPTANE / PG II	3	None		None	BP001		1	None	
2242	CYCLOHEPTENE / PG II	3	None		None	BP001		1	None	
2243	CYCLOHEXYL ACETATE / PG III	3	None		None	BP001		5	None	
2244	CYCLOPENTANOL / PG III	3	None		None	BP001		5	None	
2245	CYCLOPENTANONE / PG III	3	None		None	BP001		5	None	
2246	CYCLOPENTENE / PG II	3	None		None	BP001		1	None	
2247	n-DECANE / PG III	3	None		None	BP001		5	None	
2248	DI-n-BUTYLAMINE / PG II	8	3		None	BP001		1	None	CR5
2250	DICHLOROPHENYL	6.1	None		None	BP002		0.5	None	
2230	ISOCYANATES / PG II	0.1	None		None	DF 002		0.5	None	
	BICYCLO[2.2.1]HEPTA-2,5-									
2251	DIENE, STABILIZED (also known	3	None		None	BP001		1	None	
	as 2,5- NORBORNADIENE,	,	110110		1,0110	DIOOI		1	110110	
	STABILIZED) / PG II									

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •p• /•	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2252	1,2-DIMETHOXYETHANE / PG II	3	None		None	BP001		1	None	
2253	N,N-DIMETHYLANILINE / PG II	6.1	None		None	BP001		0.1	None	
2254	MATCHES, FUSEE / PG III	4.1	None	Matches the heads of which are prepared with a friction-sensitive igniter composition and a pyrotechnic composition which burns with little or no flame, but with intense heat	None	BP407		5	None	
2256	CYCLOHEXENE / PG II	3	None		None	BP001		1	None	
2257	POTASSIUM / PG I	4.3	None		None	BP403	SP31	None	None	CR5
2258	1,2-PROPYLENEDIAMINE / PG II	8	3		None	BP001		1	None	CR5
2259	TRIETHYLENETETRAMINE / PG II	8	None		None	BP001		1	None	CG18, CR5
2260	TRIPROPYLAMINE / PG III	3	8		None	BP001		5	None	CR5
2261	XYLENOLS, SOLID / PG II	6.1	None		None	BP002		0.5	None	
2262	DIMETHYLCARBAMOYL CHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2263	DIMETHYLCYCLOHEXANES / PG II	3	None		None	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crost finations	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2264	N,N- DIMETHYLCYCLOHEXYLAMI NE / PG II	8	3		None	BP001		1	None	CR5
2265	N,N-DIMETHYLFORMAMIDE / PG III	3	None		None	BP001		5	None	
2266	DIMETHYL-N-PROPYLAMINE / PG II	3	8		None	BP001		1	None	CR5
2267	DIMETHYL THIOPHOSPHORYL CHLORIDE / PG II	6.1	8		None	BP001		0.1	None	CG1, CR6, CR19
2269	3,3'-IMINODIPROPYLAMINE / PG III	8	None		None	BP001		5	None	CR5
2270	ETHYLAMINE, AQUEOUS SOLUTION / PG II	3	8	With not less than 50% but not more than 70% ethylamine	None	BP001		1	None	CG18, CR5
2271	ETHYL AMYL KETONES / PG III	3	None		None	BP001		5	None	
2272	N-ETHYLANILINE / PG III	6.1	None		None	BP001		5	None	CR3, CR5
2273	2-ETHYLANILINE / PG III	6.1	None		None	BP001		5	None	CR3, CR5
2274	N-ETHYL-N-BENZYLANILINE / PG III	6.1	None		None	BP001		5	None	
2275	2-ETHYLBUTANOL / PG III	3	None		None	BP001		5	None	
2276	2-ETHYLHEXYLAMINE / PG III	3	8		None	BP001		5	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •0• 4•	SN	Packing (Ap	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2277	ETHYL METHACRYLATE, STABILIZED / PG II	3	None		None	BP001		1	None	
2278	n-HEPTENE / PG II	3	None		None	BP001		1	None	
2279	HEXACHLOROBUTADIENE / PG III	6.1	None		None	BP001		5	None	CG10
2280	HEXAMETHYLENEDIAMINE, SOLID / PG III	8	None		None	BP002		5	None	CR5
2281	HEXAMETHYLENE DIISOCYANATE / PG II	6.1	None		None	BP001		0.1	None	
2282	HEXANOLS / PG III	3	None		None	BP001		5	None	
2283	ISOBUTYL METHACRYLATE, STABILIZED / PG III	3	None		None	BP001		5	None	
2284	ISOBUTYRONITRILE / PG II	3	6.1		None	BP001		1	None	
2285	ISOCYANATOBENZOTRIFLUO RIDES / PG II	6.1	3		None	BP001		0.1	None	
2286	PENTAMETHYLHEPTANE / PG III	3	None		None	BP001		5	None	
2287	ISOHEPTENES / PG II	3	None		None	BP001		1	None	
2288	ISOHEXENES / PG II	3	None		None	BP001		1	None	
2289	ISOPHORONEDIAMINE / PG III	8	None		None	BP001		5	None	CR5

UN	Proper Shipping Name /	~	Subsidiary	G	SN	Packing (A)	ppendix 5)		1 <b>5</b> 70 C	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2290	ISOPHORONE DIISOCYANATE / PG III	6.1	None		None	BP001		5	None	
				Lead compounds which, when mixed in a ratio of 1:1 000 with 0.07M hydrochloric acid and stirred for 1 hour at a temperature of 23°C ± 2°C,						
2291	LEAD COMPOUND, SOLUBLE, N.O.S. / PG III	6.1	None	exhibit a solubility of 5% or less are considered insoluble and are	274	BP002		5	None	CG7, CG9

**(5)** 

**(2)** 

**(1)** 

**(3)** 

**(4)** 

**(7)** 

**(8)** 

**(9)** 

**(6)** 

**(10)** 

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2297	METHYLCYCLOHEXANONE / PG III	3	None		None	BP001		5	None	
2298	METHYLCYCLOPENTANE / PG II	3	None		None	BP001		1	None	
2299	METHYL DICHLOROACETATE / PG III	6.1	None		None	BP001		5	None	
2300	2-METHYL-5-ETHYLPYRIDINE / PG III	6.1	None		None	BP001		5	None	
2301	2-METHYLFURAN / PG II	3	None		None	BP001		1	None	
2302	5-METHYLHEXAN-2-ONE / PG III	3	None		None	BP001		5	None	
2303	ISOPROPENYLBENZENE / PG III	3	None		None	BP001		5	None	
2304	NAPHTHALENE, MOLTEN / PG III	4.1	None		None			None	None	
2305	NITROBENZENESULPHONIC ACID / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
2306	NITROBENZOTRIFLUORIDES, LIQUID / PG II	6.1	None		None	BP001		0.1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Chasifications	SN	Packing (Ap	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	3-NITRO-4- CHLOROBENZOTRIFLUORIDE / PG II	6.1	None		None	BP001		0.1	None	
2308	NITROSYLSULPHURIC ACID, LIQUID / PG II	8	None		None	BP001		1	None	CG1, CR3, CR4, CR6, CR19, CR31
2309	OCTADIENE / PG II	3	None		None	BP001		1	None	
2310	PENTANE-2,4-DIONE / PG III	3	6.1		None	BP001		5	None	
2311	PHENETIDINES / PG III	6.1	None		279	BP001		5	None	
2312	PHENOL, MOLTEN / PG II	6.1	None		None			None	None	
2313	PICOLINES / PG III	3	None		None	BP001		5	None	
2316	SODIUM CUPROCYANIDE, SOLID / PG I	6.1	None		None	BP002		None	None	CG6, CR5
2317	SODIUM CUPROCYANIDE SOLUTION / PG I	6.1	None		None	BP001		None	None	CG6, CR5
2318	SODIUM HYDROSULPHIDE / PG II	4.2	None	With less than 25% water of crystallization	None	BP410	SP31	None	None	CG18, CR5
2319	TERPENE HYDROCARBONS, N.O.S. / PG III	3	None		None	BP001		5	None	
2320	TETRAETHYLENEPENTAMINE / PG III	8	None		None	BP001		5	None	CG18, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2321	TRICHLOROBENZENES, LIQUID / PG III	6.1	None		None	BP001		5	None	CG10
2322	TRICHLOROBUTENE / PG II	6.1	None		None	BP001		0.1	None	CG10
2323	TRIETHYL PHOSPHITE / PG III	3	None		None	BP001		5	None	
2324	TRIISOBUTYLENE / PG III	3	None		None	BP001		5	None	
2325	1,3,5-TRIMETHYLBENZENE / PG III	3	None		None	BP001		5	None	
2326	TRIMETHYLCYCLOHEXYLAMI NE / PG III	8	None		None	BP001		5	None	CR5
2327	TRIMETHYLHEXAMETHYLEN EDIAMINES / PG III	8	None		None	BP001		5	None	CR5
2328	TRIMETHYLHEXAMETHYLEN E DIISOCYANATE / PG III	6.1	None		None	BP001		5	None	
2329	TRIMETHYL PHOSPHITE / PG III	3	None		None	BP001		5	None	
2330	UNDECANE / PG III	3	None		None	BP001		5	None	
2331	ZINC CHLORIDE, ANHYDROUS / PG III	8	None		None	BP002		5	None	CG1, CG7, CR6, CR19
2332	ACETALDEHYDE OXIME / PG III	3	None		None	BP001		5	None	
2333	ALLYL ACETATE / PG II	3	6.1		None	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )		(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2334	ALLYLAMINE / PG I	6.1	3		354	BP602		None	None	CR5
2335	ALLYL ETHYL ETHER / PG II	3	6.1		None	BP001		1	None	
2336	ALLYL FORMATE / PG I	3	6.1		None	BP001		None	None	
2337	PHENYL MERCAPTAN / PG I	6.1	3		354	BP602		None	None	CR5
2338	BENZOTRIFLUORIDE / PG II	3	None		None	BP001		1	None	
2339	2-BROMOBUTANE / PG II	3	None		None	BP001		1	None	CG10
2340	2-BROMOETHYL ETHYL ETHER / PG II	3	None		None	BP001		1	None	
2341	1-BROMO-3-METHYLBUTANE / PG III	3	None		None	BP001		5	None	CG10
2342	BROMOMETHYLPROPANES / PG II	3	None		None	BP001		1	None	CG10
2343	2-BROMOPENTANE / PG II	3	None		None	BP001		1	None	CG10
2344	BROMOPROPANES / PG II	3	None		None	BP001		1	None	CG10
2344	BROMOPROPANES / PG III	3	None		None	BP001		5	None	CG10
2345	3-BROMOPROPYNE / PG II	3	None		None	BP001		1	None	
2346	BUTANEDIONE / PG II	3	None		None	BP001		1	None	
2347	BUTYL MERCAPTAN / PG II	3	None		None	BP001		1	None	CR5
2348	BUTYL ACRYLATES, STABILIZED / PG III	3	None		None	BP001		5	None	
2350	BUTYL METHYL ETHER / PG II	3	None		None	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	G •0• /•	SN	Packing (App	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2351	BUTYL NITRITES / PG II	3	None		None	BP001		1	None	
2351	BUTYL NITRITES / PG III	3	None		None	BP001		5	None	
2352	BUTYL VINYL ETHER, STABILIZED / PG II	3	None		None	BP001		1	None	
2353	BUTYRYL CHLORIDE / PG II	3	8		None	BP001		1	None	CG1, CR6, CR19
2354	CHLOROMETHYL ETHYL ETHER / PG II	3	6.1		None	BP001		1	None	
2356	2-CHLOROPROPANE / PG I	3	None		None	BP001		None	None	CG10
2357	CYCLOHEXYLAMINE / PG II	8	3		None	BP001		1	None	CR5
2358	CYCLOOCTATETRAENE / PG II	3	None		None	BP001		1	None	
2359	DIALLYLAMINE / PG II	3	6.1, 8		None	BP001		1	None	CR5
2360	DIALLYL ETHER / PG II	3	6.1		None	BP001		1	None	
2361	DIISOBUTYLAMINE / PG III	3	8		None	BP001		5	None	CR5
2362	1,1-DICHLOROETHANE / PG II	3	None		None	BP001		1	None	CG10
2363	ETHYL MERCAPTAN / PG I	3	None		None	BP001		None	None	
2364	n-PROPYLBENZENE / PG III	3	None		None	BP001		5	None	
2366	DIETHYL CARBONATE / PG III	3	None		None	BP001		5	None	
2367	alpha-METHYL- VALERALDEHYDE / PG II	3	None		None	BP001		1	None	
2368	alpha-PINENE / PG III	3	None		None	BP001		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	G •0• 4•	SN	Packing (App	endix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2370	1-HEXENE / PG II	3	None		None	BP001		1	None	
2371	ISOPENTENES / PG I	3	None		None	BP001		None	None	
	1,2-DI- (DIMETHYLAMINO)ETHANE / PG II	3	None		None	BP001		1	None	
2373	DIETHOXYMETHANE / PG II	3	None		None	BP001		1	None	
2374	3,3-DIETHOXYPROPENE / PG II	3	None		None	BP001		1	None	
2375	DIETHYL SULPHIDE / PG II	3	None		None	BP001		1	None	
2376	2,3-DIHYDROPYRAN / PG II	3	None		None	BP001		1	None	
2377	1,1-DIMETHOXYETHANE / PG II	3	None		None	BP001		1	None	
2378	2-DIMETHYLAMINO- ACETONITRILE / PG II	3	6.1		None	BP001		1	None	CR5
2379	1,3-DIMETHYLBUTYLAMINE / PG II	3	8		None	BP001		1	None	CG18, CR5
2380	DIMETHYLDIETHOXYSILANE / PG II	3	None		None	BP001		1	None	
2381	DIMETHYL DISULPHIDE / PG II	3	6.1		None	BP001		1	None	
2382	DIMETHYLHYDRAZINE, SYMMETRICAL / PG I	6.1	3		354	BP602		None	None	CG18, CR3, CR5
2383	DIPROPYLAMINE / PG II	3	8		None	BP001		1	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	1	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2384	DI-n-PROPYL ETHER / PG II	3	None		None	BP001		1	None	
2385	ETHYL ISOBUTYRATE / PG II	3	None		None	BP001		1	None	
2386	1-ETHYLPIPERIDINE / PG II	3	8		None	BP001		1	None	CG18, CR5
2387	FLUOROBENZENE / PG II	3	None		None	BP001		1	None	CG10
2388	FLUOROTOLUENES / PG II	3	None		None	BP001		1	None	CG10
2389	FURAN / PG I	3	None		None	BP001		None	None	
2390	2-IODOBUTANE / PG II	3	None		None	BP001		1	None	CG10
2391	IODOMETHYLPROPANES / PG II	3	None		None	BP001		1	None	CG10
2392	IODOPROPANES / PG III	3	None		None	BP001		5	None	CG10
2393	ISOBUTYL FORMATE / PG II	3	None		None	BP001		1	None	
2394	ISOBUTYL PROPIONATE / PG III	3	None		None	BP001		5	None	
2395	ISOBUTYRYL CHLORIDE / PG II	3	8		None	BP001		1	None	CG1, CR6, CR19
2396	METHACRYLALDEHYDE, STABILIZED / PG II	3	6.1		None	BP001		1	None	
2397	3-METHYLBUTAN-2-ONE / PG II	3	None		None	BP001		1	None	
2398	METHYL tert-BUTYL ETHER / PG II	3	None	_	None	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )		(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Appen	ndix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2399	1-METHYLPIPERIDINE / PG II	3	8		None	BP001		1	None	CG18, CR5
2400	METHYL ISOVALERATE / PG II	3	None		None	BP001		1	None	
2401	PIPERIDINE / PG I	8	3		None	BP001		None	None	CG18, CR5
2402	PROPANETHIOLS / PG II	3	None		None	BP001		1	None	
2403	ISOPROPENYL ACETATE / PG II	3	None		None	BP001		1	None	
2404	PROPIONITRILE / PG II	3	6.1		None	BP001		1	None	
2405	ISOPROPYL BUTYRATE / PG III	3	None		None	BP001		5	None	
2406	ISOPROPYL ISOBUTYRATE / PG II	3	None		None	BP001		1	None	
2407	ISOPROPYL CHLOROFORMATE / PG I	6.1	3, 8		354	BP602		None	None	CG1, CR6, CR19, CR30
2409	ISOPROPYL PROPIONATE / PG II	3	None		None	BP001		1	None	
2410	1,2,3,6-TETRAHYDROPYRIDINE / PG II	3	None		None	BP001		1	None	
2411	BUTYRONITRILE / PG II	3	6.1		None	BP001		1	None	
2412	TETRAHYDROTHIOPHENE / PG II	3	None		None	BP001		1	None	
2413	TETRAPROPYL ORTHOTITANATE / PG III	3	None		None	BP001		5	None	
2414	THIOPHENE / PG II	3	None		None	BP001		1	None	

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	Cl • 60• 1.•	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2416	TRIMETHYL BORATE / PG II	3	None		None	BP001		1	None	
2417	CARBONYL FLUORIDE	2.3	8		None	BP200		None	None	CR7
2418	SULPHUR TETRAFLUORIDE	2.3	8		None	BP200		None	None	CR5, CR7
2419	BROMOTRIFLUOROETHYLENE	2.1	None		None	BP200		None	None	CR7
2420	HEXAFLUOROACETONE	2.3	8		None	BP200		None	None	CR7
2421	NITROGEN TRIOXIDE	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
	OCTAFLUOROBUT-2-ENE (also known as REFRIGERANT GAS R 1318)	2.2	None		None	BP200		0.12	None	
2424	OCTAFLUOROPROPANE (also known as REFRIGERANT GAS R 218)	2.2	None		None	BP200		0.12	None	
2426	AMMONIUM NITRATE, LIQUID	5.1	None	Hot concentrated solution.  Provided the ammonium nitrate remains in solution, aqueous solutions of ammonium nitrate, with not more than 0.2% combustible material, in a concentration not exceeding 80%, are not subject to the Dangerous Goods Ordinance	None			None	None	CG2, CR8, CR13, CR15, CR17, CR20, CR25, CR26, CR27

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				(Cap. 295).  Ammonium Nitrate liable to self-heating sufficient to initiate						
2427	POTASSIUM CHLORATE, AQUEOUS SOLUTION / PG II	5.1	None	a decomposition is prohibited.	None	BP504		1	None	CG4, CR10, CR19, CR29
2427	POTASSIUM CHLORATE, AQUEOUS SOLUTION / PG III	5.1	None		None	BP504		5	None	CG4, CR10, CR19, CR29
2428	SODIUM CHLORATE, AQUEOUS SOLUTION / PG II	5.1	None		None	BP504		1	None	CG4, CR10, CR19, CR29
2428	SODIUM CHLORATE, AQUEOUS SOLUTION / PG III	5.1	None		None	BP504		5	None	CG4, CR10, CR19, CR29
2429	CALCIUM CHLORATE, AQUEOUS SOLUTION / PG II	5.1	None		None	BP504		1	None	CG4, CR10, CR19, CR29
2429	CALCIUM CHLORATE, AQUEOUS SOLUTION / PG III	5.1	None		None	BP504		5	None	CG4, CR10, CR19, CR29
2430	ALKYLPHENOLS, SOLID, N.O.S. / PG I	8	None	Including C <sub>2</sub> -C <sub>12</sub> homologues	None	BP002		None	None	
12430	ALKYLPHENOLS, SOLID, N.O.S. / PG II	8	None	Including C <sub>2</sub> -C <sub>12</sub> homologues	None	BP002		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	1	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2430	ALKYLPHENOLS, SOLID, N.O.S. / PG III	8	None	Including C <sub>2</sub> -C <sub>12</sub> homologues	None	BP002		5	None	
2431	ANISIDINES / PG III	6.1	None		None	BP001		5	None	
2432	N,N-DIETHYLANILINE / PG III	6.1	None		279	BP001		5	None	
2433	CHLORONITROTOLUENES, LIQUID / PG III	6.1	None		None	BP001		5	None	CR31
2434	DIBENZYLDICHLOROSILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
2435	ETHYLPHENYL- DICHLOROSILANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
2436	THIOACETIC ACID / PG II	3	None		None	BP001		1	None	
2437	METHYLPHENYLDICHLOROSI LANE / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
2438	TRIMETHYLACETYL CHLORIDE / PG I	6.1	3, 8		None	BP001		None	None	CG1, CR6, CR19, CR30
2439	SODIUM HYDROGENDIFLUORIDE / PG II	8	None		None	BP002		1	None	CG1, CR5, CR6, CR19
2440	STANNIC CHLORIDE PENTAHYDRATE / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	GI.	Subsidiary	G 101 11	SN	Packing (A <sub>l</sub>	ppendix 5)		MOG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2441	TITANIUM TRICHLORIDE, PYROPHORIC or TITANIUM TRICHLORIDE MIXTURE, PYROPHORIC / PG I	4.2	8		None	BP404	SP31	None	None	CG7
2442	TRICHLOROACETYL CHLORIDE / PG II	8	None		None	BP001		None	None	CG1, CR6, CR19
2443	VANADIUM OXYTRICHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2444	VANADIUM TETRACHLORIDE / PG I	8	None		None	BP802		None	None	CG1, CR6, CR19
2446	NITROCRESOLS, SOLID / PG III	6.1	None		None	BP002		5	None	
2447	PHOSPHORUS, WHITE, MOLTEN / PG I	4.2	6.1		None			None	None	
2448	SULPHUR, MOLTEN / PG III	4.1	None		None			None	None	CR3
2451	NITROGEN TRIFLUORIDE	2.2	5.1		None	BP200		None	None	CG19
2452	ETHYLACETYLENE, STABILIZED	2.1	None		None	BP200		None	None	CR7
2453	ETHYL FLUORIDE (also known as REFRIGERANT GAS R 161)	2.1	None		None	BP200		None	None	CR7
2454	METHYL FLUORIDE (also known as REFRIGERANT GAS R 41)	2.1	None		None	BP200		None	None	CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifiastiana	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2456	2-CHLOROPROPENE / PG I	3	None		None	BP001		None	None	CG10
2457	2,3-DIMETHYLBUTANE / PG II	3	None		None	BP001		1	None	
2458	HEXADIENES / PG II	3	None		None	BP001		1	None	
2459	2-METHYL-1-BUTENE / PG I	3	None		None	BP001		None	None	
2460	2-METHYL-2-BUTENE / PG II	3	None		None	BP001		1	None	
2461	METHYLPENTADIENES / PG II	3	None		None	BP001		1	None	
2463	ALUMINIUM HYDRIDE / PG I	4.3	None		None	BP403	SP31	None	None	
2464	BERYLLIUM NITRATE / PG II	5.1	6.1		None	BP002		1	None	
2465	DICHLOROISOCYANURIC ACID, DRY or DICHLOROISOCYANURIC ACID SALTS / PG II	5.1	None	The dihydrated sodium salt of dichloroisocyanuric acid is not subject to the Dangerous Goods Ordinance (Cap. 295) unless meeting the criteria for inclusion in another Class.	None	BP002		1	None	
2466	POTASSIUM SUPEROXIDE / PG I	5.1	None		None	BP503		None	None	CG16, CR4, CR5, CR27
2468	TRICHLOROISOCYANURIC ACID, DRY / PG II	5.1	None		None	BP002		1	None	
2469	ZINC BROMATE / PG III	5.1	None		None	BP002		5	None	CG3, CG7, CR10, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •0• .•	SN	Packing (A)	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2470	PHENYLACETONITRILE, LIQUID / PG III	6.1	None		None	BP001		5	None	CR5
2471	OSMIUM TETROXIDE / PG I	6.1	None		None	BP002	SP30 SP31	None	None	
2473	SODIUM ARSANILATE / PG III	6.1	None		None	BP002		5	None	
2474	THIOPHOCGENE / PG I	6.1	None		279 354	BP602		None	None	CR5
2475	VANADIUM TRICHLORIDE / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
2477	METHYL ISOTHIOCYANATE / PG I	6.1	3		354	BP602		None	None	
2478	ISOCYANATES, FLAMMABLE, TOXIC, N.O.S. or ISOCYANATE SOLUTION, FLAMMABLE, TOXIC, N.O.S. / PG II	3	6.1		274	BP001	SP31	1	None	
2478	ISOCYANATES, FLAMMABLE, TOXIC, N.O.S. or ISOCYANATE SOLUTION, FLAMMABLE, TOXIC, N.O.S. / PG III	3	6.1		274	BP001	SP31	5	None	
2480	METHYL ISOCYANATE / PG I	6.1	3		354	BP601		None	None	CR5
2481	ETHYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Append	lix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP S	P	LQ	MPS	2.3.3
2482	n-PROPYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2483	ISOPROPYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2484	tert-BUTYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2485	n-BUTYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2486	ISOBUTYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2487	PHENYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2488	CYCLOHEXYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2490	DICHLOROISOPROPYL ETHER / PG II	6.1	None		None	BP001		0.1	None	
2491	ETHANOLAMINE or ETHANOLAMINE SOLUTION / PG III	8	None		None	BP001		5	1	CG18, CR5
2493	HEXAMETHYLENEIMINE / PG II	3	8		None	BP001		1	None	
2495	IODINE PENTAFLUORIDE / PG I	5.1	6.1, 8		None	BP209		None	None	CG1, CR4, CR5, CR6, CR19, CR31
2496	PROPIONIC ANHYDRIDE / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cracifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	1,2,3,6- TETRAHYDROBENZALDEHYD E / PG III	3	None		None	BP001		5	None	
2501	TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
2501	TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION / PG III	6.1	None		None	BP001		5	None	
2502	VALERYL CHLORIDE / PG II	8	3		None	BP001		1	None	CG1, CR6, CR19
2503	ZIRCONIUM TETRACHLORIDE / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
2504	TETRABROMOETHANE / PG III	6.1	None		None	BP001		5	None	CG10
2505	AMMONIUM FLUORIDE / PG III	6.1	None		None	BP002		5	None	CG2, CR5
2506	AMMONIUM HYDROGEN SULPHATE / PG II	8	None		None	BP002		1	None	CG1, CG2, CR6, CR19
2507	CHLOROPLATINIC ACID, SOLID / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
2508	MOLYBDENUM PENTACHLORIDE / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C• p•	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2509	POTASSIUM HYDROGEN SULPHATE / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
2511	2-CHLOROPROPIONIC ACID / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
2512	AMINOPHENOLS (o-, m-, p-) / PG III	6.1	None		279	BP002		5	None	
2513	BROMOACETYL BROMIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2514	BROMOBENZENE / PG III	3	None		None	BP001		5	None	
2515	BROMOFORM / PG III	6.1	None		None	BP001		5	None	CG10
2516	CARBON TETRABROMIDE / PG III	6.1	None		None	BP002		5	None	
2517	1-CHLORO-1,1- DIFLUOROETHANE (also known as REFRIGERANT GAS R 142b)	2.1	None		None	BP200		None	None	CR7
2518	1,5,9-CYCLODODECATRIENE / PG III	6.1	None		None	BP001		5	None	
2520	CYCLOOCTADIENES / PG III	3	None		None	BP001		5	None	
2521	DIKETENE, STABILIZED / PG I	6.1	3		354	BP602		None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2522	2-DIMETHYLAMINOETHYL METHACRYLATE, STABILIZED / PG II	6.1	None		None	BP001		0.1	None	
2524	ETHYL ORTHOFORMATE / PG III	3	None		None	BP001		5	None	
2525	ETHYL OXALATE / PG III	6.1	None		None	BP001		5	None	
2526	FURFURYLAMINE / PG III	3	8		None	BP001		5	None	CR5
2527	ISOBUTYL ACRYLATE, STABILIZED / PG III	3	None		None	BP001		5	None	
2528	ISOBUTYL ISOBUTYRATE / PG III	3	None		None	BP001		5	None	
2529	ISOBUTYRIC ACID / PG III	3	8		None	BP001		5	None	
2531	METHACRYLIC ACID, STABILIZED / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2533	METHYL TRICHLOROACETATE / PG III	6.1	None		None	BP001		5	None	
2534	METHYLCHLOROSILANE	2.3	2.1, 8	-	None	BP200		None	None	CR7
2535	4-METHYLMORPHOLINE (also known as N- METHYLMORPHOLINE) / PG II	3	8		None	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2536	METHYLTETRAHYDROFURAN / PG II	3	None		None	BP001		1	None	
2538	NITRONAPHTHALENE / PG III	4.1	None		None	BP002		5	None	
2541	TERPINOLENE / PG III	3	None		None	BP001		5	None	
2542	TRIBUTYLAMINE / PG II	6.1	None		None	BP001		0.1	None	
2545	HAFNIUM POWDER, DRY / PG I	4.2	None		None	BP404	SP31	None	None	CG15
2545	HAFNIUM POWDER, DRY / PG II	4.2	None		None	BP410	SP31	None	None	CG15
2545	HAFNIUM POWDER, DRY / PG III	4.2	None		None	BP002	SP31	None	None	CG15
2546	TITANIUM POWDER, DRY / PG I	4.2	None		None	BP404	SP31	None	None	CG7, CG15
2546	TITANIUM POWDER, DRY / PG II	4.2	None		None	BP410	SP31	None	None	CG7, CG15
2546	TITANIUM POWDER, DRY / PG III	4.2	None		None	BP002	SP31	None	None	CG7, CG15
2547	SODIUM SUPEROXIDE / PG I	5.1	None		None	BP503		None	None	CG16, CR4, CR5, CR27
2548	CHLORINE PENTAFLUORIDE	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
2552	HEXAFLUOROACETONE HYDRATE, LIQUID / PG II	6.1	None		None	BP001		0.1	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C**C*4*	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2554	METHYLALLYL CHLORIDE / PG II	3	None		None	BP001		1	None	CG10
2555	NITROCELLULOSE WITH WATER / PG II	4.1	None	Not less than 25% water, by mass	None	BP406	SP31	None	None	
2556	NITROCELLULOSE WITH ALCOHOL / PG II	4.1		Not less than 25% alcohol, by mass, and not more than 12.6% nitrogen, by dry mass	None	BP406	SP31	None	None	
2557	NITROCELLULOSE MIXTURE WITH or WITHOUT PLASTICIZER, WITH or WITHOUT PIGMENT / PG II	4.1	None	With not more than 12.6% nitrogen, by dry mass	None	BP406	SP31	None	None	
2558	EPIBROMOHYDRIN / PG I	6.1	3		None	BP001		None	None	
2560	2-METHYLPENTAN-2-OL / PG III	3	None		None	BP001		5	None	
2561	3-METHYL-1-BUTENE / PG I	3	None		None	BP001		None	None	
2564	TRICHLOROACETIC ACID SOLUTION / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2564	TRICHLOROACETIC ACID SOLUTION / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
2565	DICYCLOHEXYLAMINE / PG III	8	None		None	BP001		5	None	CR5

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	(8)	<b>(9</b> )	(10)

UN	Proper Shipping Name /	CI.	Subsidiary	G •0• /•	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	SODIUM PENTACHLOROPHENATE / PG II	6.1	None		None	BP002		0.5	None	
2570	CADMIUM COMPOUND / PG I	6.1	None	Cadmium pigments, such as cadmium sulphides, cadmium sulphoselenides and cadmium salts of higher fatty acids (e.g. cadmium stearate), are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		None	None	
2570	CADMIUM COMPOUND / PG II	6.1	None	Cadmium pigments, such as cadmium sulphides, cadmium sulphoselenides and cadmium salts of higher fatty acids (e.g. cadmium stearate), are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		0.5	None	
2570	CADMIUM COMPOUND / PG III	6.1	None	Cadmium pigments, such as cadmium sulphides, cadmium sulphoselenides and cadmium salts of higher fatty acids (e.g. cadmium stearate), are not	274	BP002		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				subject to the Dangerous Goods						
				Ordinance (Cap. 295).						
2571	ALKYLSULPHURIC ACIDS / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2572	PHENYLHYDRAZINE / PG II	6.1	None		None	BP001		0.1	None	
2573	THALLIUM CHLORATE / PG II	5.1	6.1		None	BP002		1	None	CG4, CR10, CR19
2574	TRICRESYL PHOSPHATE / PG II	6.1	None	With more than 3% ortho- isomer	None	BP001		0.1	None	
2576	PHOSPHORUS OXYBROMIDE, MOLTEN / PG II	8	None		None			None	None	CG1, CR6, CR19
2577	PHENYLACETYL CHLORIDE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2578	PHOSPHORUS TRIOXIDE / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
2579	PIPERAZINE / PG III	8	None		None	BP002		5	None	CG18, CR5
2580	ALUMINIUM BROMIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
2581	ALUMINIUM CHLORIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19

<b>(1)</b>	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2582	FERRIC CHLORIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
2583	ALKYLSULPHONIC ACIDS, SOLID or ARYLSULPHONIC ACIDS, SOLID / PG II	8	None	With more than 5% free sulphuric acid	None	BP002		1	None	CG1, CR6, CR19
2584	ALKYLSULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS, LIQUID / PG II	8	None	With more than 5% free sulphuric acid	None	BP001		1	None	CG1, CR6, CR19
2585	ALKYLSULPHONIC ACIDS, SOLID or ARYLSULPHONIC ACIDS, SOLID / PG III	8	None	With not more than 5% free sulphuric acid	None	BP002		5	None	CG1, CR6, CR19
2586	ALKYLSULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS, LIQUID / PG III	8	None	With not more than 5% free sulphuric acid	None	BP001		5	None	CG1, CR6, CR19
2587	BENZOQUINONE / PG II	6.1	None		None	BP002		0.5	None	
2589	VINYL CHLOROACETATE / PG II	6.1	3		None	BP001		0.1	None	
12591	XENON, REFRIGERATED LIQUID	2.2	None		None	BP203		0.12	None	
2599	CHLOROTRIFLUOROMETHAN E AND TRIFLUOROMETHANE	2.2	None	With approximately 60% chlorotrifluoromethane	None	BP200		0.12	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifications	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
	AZEOTROPIC MIXTURE (also known as REFRIGERANT GAS R 503)									
2601	CYCLOBUTANE	2.1	None		None	BP200		None	None	CR7
2602	DICHLORODIFLUOROMETHAN E AND DIFLUOROETHANE AZEOTROPIC MIXTURE (also known as REFRIGERANT GAS R 500)	2.2	None	With approximately 74% dichlorodifluoromethane	None	BP200		0.12	None	
2603	CYCLOHEPTATRIENE / PG II	3	6.1		None	BP001		1	None	
2604	BORON TRIFLUORIDE DIETHYL ETHERATE / PG I	8	3		None	BP001	SP31	None	None	CG1, CR6, CR19
2605	METHOXYMETHYL ISOCYANATE / PG I	6.1	3		354	BP602		None	None	
2606	METHYL ORTHOSILICATE / PG I	6.1	3		354	BP602		None	None	
2607	ACROLEIN DIMER, STABILIZED / PG III	3	None		None	BP001		5	None	
2608	NITROPROPANES / PG III	3	None		None	BP001		5	None	
2609	TRIALLYL BORATE / PG III	6.1	None		None	BP001		5	None	
2610	TRIALLYLAMINE / PG III	3	8		None	BP001		5	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2611	PROPYLENE CHLOROHYDRIN / PG II	6.1	3		None	BP001		0.1	None	
2612	METHYL PROPYL ETHER / PG II	3	None		None	BP001		1	None	
2614	METHALLYL ALCOHOL / PG III	3	None		None	BP001		5	None	
2615	ETHYL PROPYL ETHER / PG II	3	None		None	BP001		1	None	
2616	TRIISOPROPYL BORATE / PG II	3	None		None	BP001		1	None	
2616	TRIISOPROPYL BORATE / PG III	3	None		None	BP001		5	None	
2617	METHYLCYCLOHEXANOLS / PG III	3	None	Flammable	None	BP001		5	None	
2618	VINYLTOLUENES, STABILIZED / PG III	3	None		None	BP001		5	None	
2619	BENZYLDIMETHYLAMINE / PG II	8	3		None	BP001		1	None	CR5
2620	AMYL BUTYRATES / PG III	3	None		None	BP001		5	None	
2621	ACETYL METHYL CARBINOL / PG III	3	None		None	BP001		5	None	
2622	GLYCIDALDEHYDE / PG II	3	6.1		None	BP001		1	None	
2623	FIRELIGHTERS, SOLID / PG III	4.1	None	With flammable liquid	None	BP002		5	1	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifiastiana	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2624	MAGNESIUM SILICIDE / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	
12626	CHLORIC ACID, AQUEOUS SOLUTION / PG II	5.1	None	With not more than 10% chloric acid. Chloric acid aqueous solutions with a concentration exceeding 10% are prohibited.	None	BP504	SP31	1	None	CG1, CR6, CR10, CR19
12627	NITRITES, INORGANIC, N.O.S. / PG II	5.1	None	Ammonium nitrites and mixtures of an inorganic nitrite with an ammonium salt are prohibited.	274	BP002		1	None	CG12, CR10, CR19, CR29
2628	POTASSIUM FLUOROACETATE / PG I	6.1	None		None	BP002		None	None	
2629	SODIUM FLUOROACETATE / PG I	6.1	None		None	BP002		None	None	
2630	SELENATES or SELENITES / PG I	6.1	None		274	BP002		None	None	
2642	FLUOROACETIC ACID / PG I	6.1	None		None	BP002		None	None	CG1, CR6, CR19
2643	METHYL BROMOACETATE / PG II	6.1	None		None	BP001		0.1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2644	METHYL IODIDE / PG I	6.1	None		354	BP602		None	None	CG10
2645	PHENACYL BROMIDE / PG II	6.1	None		None	BP002		0.5	None	
2646	HEXACHLOROCYCLOPENTADI ENE / PG I	6.1	None		354	BP602		None	None	CG10
2647	MALONONITRILE / PG II	6.1	None		None	BP002		0.5	None	
2648	1,2-DIBROMOBUTAN-3-ONE / PG II	6.1	None		None	BP001		0.1	None	
2649	1,3-DICHLOROACETONE / PG II	6.1	None		None	BP002		0.5	None	
2650	1,1-DICHLORO-1- NITROETHANE / PG II	6.1	None		None	BP001		0.1	None	CR3
	4,4'- DIAMINODIPHENYLMETHANE / PG III	6.1	None		None	BP002		5	None	
2653	BENZYL IODIDE / PG II	6.1	None		None	BP001		0.1	None	
2655	POTASSIUM FLUOROSILICATE / PG III	6.1	None		None	BP002		5	None	CR5
2656	QUINOLINE / PG III	6.1	None		None	BP001		5	None	
2657	SELENIUM DISULPHIDE / PG II	6.1	None		None	BP002		0.5	None	
2659	SODIUM CHLOROACETATE / PG III	6.1	None		None	BP002		5	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	G.,	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2660	NITROTOLUIDINES (MONO) / PG III	6.1	None		None	BP002		5	None	
2661	HEXACHLOROACETONE / PG III	6.1	None		None	BP001		5	None	
2664	DIBROMOMETHANE / PG III	6.1	None		None	BP001		5	None	CG10
2667	BUTYLTOLUENES / PG III	6.1	None		None	BP001		5	None	
2668	CHLOROACETONITRILE / PG I	6.1	3		354	BP602		None	None	CR5
2669	CHLOROCRESOLS SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
2669	CHLOROCRESOLS SOLUTION / PG III	6.1	None		None	BP001		5	None	
2670	CYANURIC CHLORIDE / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
2671	AMINOPYRIDINES (o-, m-, p-) / PG II	6.1	None		None	BP002		0.5	None	CG18, CR5
2672	AMMONIA SOLUTION / PG III	8	None	Relative density between 0.880 and 0.957 at 15°C in water, with more than 10% but not more than 35% ammonia	None	BP001		5	1	CG18, CR5
2673	2-AMINO-4-CHLOROPHENOL / PG II	6.1	None		None	BP002		0.5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2674	SODIUM FLUOROSILICATE / PG III	6.1	None		None	BP002		5	None	CR5
2676	STIBINE	2.3	2.1		None	BP200		None	None	CR7
2677	RUBIDIUM HYDROXIDE SOLUTION / PG II	8	None		None	BP001		1	None	CG18, CR5
2677	RUBIDIUM HYDROXIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG18, CR5
2678	RUBIDIUM HYDROXIDE / PG II	8	None		None	BP002		1	None	CG18, CR5
2679	LITHIUM HYDROXIDE SOLUTION / PG II	8	None		None	BP001		1	None	CG18, CR5
2679	LITHIUM HYDROXIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG18, CR5
2680	LITHIUM HYDROXIDE / PG II	8	None		None	BP002		1	None	CG18, CR5
2681	CAESIUM HYDROXIDE SOLUTION / PG II	8	None		None	BP001		1	None	CG18, CR5
2681	CAESIUM HYDROXIDE SOLUTION / PG III	8	None		None	BP001		5	None	CG18, CR5
2682	CAESIUM HYDROXIDE / PG II	8	None		None	BP002		1	None	CG18, CR5
2683	AMMONIUM SULPHIDE SOLUTION / PG II	8	3, 6.1		None	BP001		1	None	CG2, CG18, CR5, CR22

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
2684	3- DIETHYLAMINOPROPYLAMIN E / PG III	3	8		None	BP001		5	None	CR5
2685	N,N- DIETHYLETHYLENEDIAMINE / PG II	8	3		None	BP001		1	None	CR5
2686	2-DIETHYLAMINOETHANOL / PG II	8	3		None	BP001		1	None	CR5
2687	DICYCLOHEXYLAMMONIUM NITRITE / PG III	4.1	None		None	BP002		5	None	CG2
2688	1-BROMO-3-CHLOROPROPANE / PG III	6.1	None		None	BP001		5	None	CG10
2689	GLYCEROL alpha- MONOCHLOROHYDRIN / PG III	6.1	None		None	BP001		5	None	
2690	N-n-BUTYLIMIDAZOLE / PG II	6.1	None		None	BP001		0.1	None	
2691	PHOSPHORUS PENTABROMIDE / PG II	8	None		None	BP002		1	None	CG1, CR6, CR9, CR19
2692	BORON TRIBROMIDE / PG I	8	None		None	BP602		None	None	CG1, CR6, CR19
12693	BISULPHITES, AQUEOUS SOLUTION, N.O.S. / PG III	8	None		274	BP001		5	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	ı	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2698	TETRAHYDROPHTHALIC	8	None	With more than 0.05% maleic	None	BP002		5	None	CG1, CR6,
2098	ANHYDRIDES / PG III	o	None	anhydride	None	DF 002		3	None	CR19
2699	TRIFLUOROACETIC ACID / PG I	8	None		None	BP001		None	None	CG1, CR6,
2077	TRILLORONCETTC NCID / TO I	0	Trone		TVOILE	<b>D</b> 1 001		TVOIC	TVOIC	CR19
2705	1-PENTOL / PG II	8	None		None	BP001		1	None	
2707	DIMETHYLDIOXANES / PG II	3	None		None	BP001		1	None	
2707	DIMETHYLDIOXANES / PG III	3	None		None	BP001		5	None	
2709	BUTYLBENZENES / PG III	3	None		None	BP001		5	None	
2710	DIPROPYL KETONE / PG III	3	None		None	BP001		5	None	
2713	ACRIDINE / PG III	6.1	None		None	BP002		5	None	
2714	ZINC RESINATE / PG III	4.1	None		None	BP002		5	None	CG7
2715	ALUMINIUM RESINATE / PG III	4.1	None		None	BP002		5	None	
2716	1,4-BUTYNEDIOL / PG III	6.1	None		None	BP002		5	None	CR5, CR6, CR24
2717	CAMPHOR / PG III	4.1	None	Synthetic	None	BP002		5	1	
2719	BARIUM BROMATE / PG II	5.1	6.1		None	BP002		1	None	CG3, CR10, CR19
2720	CHROMIUM NITRATE / PG III	5.1	None		None	BP002		5	None	
2721	COPPER CHLORATE / PG II	5.1	None		None	BP002		1	None	CG4, CR10, CR19
2722	LITHIUM NITRATE / PG III	5.1	None		None	BP002		5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2723	MAGNESIUM CHLORATE / PG II	5.1	None		None	BP002		1	None	CG4, CR10, CR19
2724	MANGANESE NITRATE / PG III	5.1	None		None	BP002		5	None	
2725	NICKEL NITRATE / PG III	5.1	None		None	BP002		5	None	
2726	NICKEL NITRITE / PG III	5.1	None		None	BP002		5	None	CG12, CR10, CR19
2727	THALLIUM NITRATE / PG II	6.1	5.1		None	BP002		0.5	None	
2728	ZIRCONIUM NITRATE / PG III	5.1	None		None	BP002		5	None	
2729	HEXACHLOROBENZENE / PG III	6.1	None		None	BP002		5	None	
2730	NITROANISOLES, LIQUID / PG III	6.1	None		279	BP001		5	None	
2732	NITROBROMOBENZENES, LIQUID / PG III	6.1	None		None	BP001		5	None	
2733	AMINES, FLAMMABLE, CORROSIVE, N.O.S. or POLYAMINES, FLAMMABLE, CORROSIVE, N.O.S. / PG I	3	8		274	BP001		None	None	CG18, CR5
2733	AMINES, FLAMMABLE, CORROSIVE, N.O.S. or	3	8		274	BP001		1	None	CG18, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	POLYAMINES, FLAMMABLE,									
	CORROSIVE, N.O.S. / PG II									
	AMINES, FLAMMABLE,									
2733	CORROSIVE, N.O.S. or	3	8		274	BP001		5	None	CG18, CR5
2133	POLYAMINES, FLAMMABLE,	3	0		274	DF 001		3	None	CO16, CK3
	CORROSIVE, N.O.S. / PG III									
	AMINES, LIQUID, CORROSIVE,									
	FLAMMABLE, N.O.S. or									
2734	POLYAMINES, LIQUID,	8	3		274	BP001		None	None	CG18, CR5
	CORROSIVE, FLAMMABLE,									
	N.O.S. / PG I									
	AMINES, LIQUID, CORROSIVE,									
	FLAMMABLE, N.O.S. or									
2734	POLYAMINES, LIQUID,	8	3		274	BP001		1	None	CG18, CR5
	CORROSIVE, FLAMMABLE,									
	N.O.S. / PG II									
	AMINES, LIQUID, CORROSIVE,									
2735	N.O.S. or POLYAMINES,	8	None		274	BP001		None	None	CG18, CR5
2733	LIQUID, CORROSIVE, N.O.S. /	0	None		274	<b>D</b> 1 001		None	None	CO16, CR3
	PG I									
2735	AMINES, LIQUID, CORROSIVE,	8	None		274	BP001		1	None	CG18, CR5
2133	N.O.S. or POLYAMINES,	<u> </u>	None		214	DI 001		1	None	CO16, CK3

(1)	(2)	(3)	<b>(4)</b>	(5)	<b>(6)</b>	(7)		(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	LIQUID, CORROSIVE, N.O.S. /									
	PG II									
2735	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. / PG III	8	None		274	BP001		5	None	CG18, CR5
2738	N-BUTYLANILINE / PG II	6.1	None		None	BP001		0.1	None	CR3
2739	BUTYRIC ANHYDRIDE / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
2740	n-PROPYL CHLOROFORMATE / PG I	6.1	3, 8		None	BP602		None	None	CG1, CR6, CR19, CR30
2741	BARIUM HYPOCHLORITE / PG II	5.1	6.1	With more than 22% available chlorine	None	BP002		1	None	CG8, CR5, CR10, CR19, CR28
2742	CHLOROFORMATES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S. / PG II	6.1	3, 8		274	BP001		0.1	None	CG1, CR6, CR19, CR30
12743	n-BUTYL CHLOROFORMATE / PG II	6.1	3, 8		None	BP001		0.1	None	CG1, CR6, CR19, CR30
2744	CYCLOBUTYL CHLOROFORMATE / PG II	6.1	3, 8		None	BP001		0.1	None	CG1, CR6, CR19, CR30

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9)</b>	(10)
UN	Proper Shipping Name /	CI	Subsidiary	Cl •0• /•	SN	Packing (Ap	pendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2745	CHLOROMETHYL	6.1	8		None	BP001		0.1	None	CG1, CR6,
2743	CHLOROFORMATE / PG II	0.1	8		None	BP001		0.1	None	CR19
2746	PHENYL CHLOROFORMATE /	6.1	8		None	BP001		0.1	None	CG1, CR6,
2740	PG II	0.1	0		TVOIC	<b>DI</b> 001		0.1	None	CR19
2747	tert-BUTYLCYCLOHEXYL	6.1	None		None	BP001		5	None	
2717	CHLOROFORMATE / PG III	0.1	Trone		TVOIC	<b>D1</b> 001		<u> </u>	rvone	
2748	2-ETHYLHEXYL	6.1	8		None	BP001		0.1	None	CG1, CR6,
	CHLOROFORMATE / PG II	0.12	Ü		1 (0110	21001			1,0110	CR19
2749	TETRAMETHYLSILANE / PG I	3	None		None	BP001		None	None	
2750	1,3-DICHLOROPROPANOL-2/	6.1	None		None	BP001		0.1	None	
2730	PG II	0.1	Trone		TVOIC	<b>DI</b> 001		0.1	Ttone	
2751	DIETHYLTHIOPHOSPHORYL	8	None		None	BP001		1	None	CG1, CR6,
2731	CHLORIDE / PG II	0	Tione		TVOIC	<b>D1</b> 001		1	rvone	CR19
2752	1,2-EPOXY-3-	3	None		None	BP001		5	None	
2732	ETHOXYPROPANE / PG III		Tione		TVOIC	<b>D1</b> 001			rvone	
2753	N-ETHYLBENZYLTOLUIDINES,	6.1	None		None	BP001		5	None	
2733	LIQUID / PG III	0.1	Tione		TVOIC	<b>D1</b> 001			rvone	
2754	N-ETHYLTOLUIDINES / PG II	6.1	None		None	BP001		0.1	None	
2785	4-THIAPENTANAL / PG III	6.1	None		None	BP001	SP31	5	None	
2788	ORGANOTIN COMPOUND,	6.1	None		274	BP001		None	None	
2700	LIQUID, N.O.S. / PG I	0.1	None		214	Druui		None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (Ap	ppendix 5)	LQ	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LŲ	MPS	2.3.3
2788	ORGANOTIN COMPOUND,	6.1	None		274	BP001		0.1	None	
2700	LIQUID, N.O.S. / PG II	0.1	None		274	<b>D</b> 1 001		0.1	TVOILC	
2788	ORGANOTIN COMPOUND,	6.1	None		274	BP001		5	None	
2700	LIQUID, N.O.S. / PG III	0.1	Tione		271	<b>D</b> 1 001		3	Tvone	
2789	ACETIC ACID, GLACIAL or	8	3	More than 80% acid, by mass	None	BP001		1	None	CG1, CR6,
2,0)	ACETIC ACID SOLUTION / PG II		J		110110	<b>D1</b> 001		1	Tyone	CR19
2790	ACETIC ACID SOLUTION / PG II	8	None	Not less than 50% but not more	None	BP001		1	None	CG1, CR6,
			1,011	than 80% acid, by mass	1,010	21001			1,0110	CR19
2790	ACETIC ACID SOLUTION / PG	8	None	More than 10% and less than	None	BP001		5	None	CG1, CR6,
	Ш		1,011	50% acid, by mass	1,010	21001			1,0110	CR19
	FERROUS METAL BORINGS,						SP20			
	SHAVINGS, TURNINGS or	4.2	None	In a form liable to self- heating	None	BP003	SP100	None	None	
	CUTTINGS / PG III									
2796	SULPHURIC ACID or BATTERY	8	None	With not more than 51% acid	None	BP001		1	1	CG1, CR6,
	FLUID, ACID / PG II									CR19
2797	BATTERY FLUID, ALKALI / PG	8	None		None	BP001		1	None	CG18, CR5
	II									·
2798	PHENYLPHOSPHORUS	8	None		None	BP001		1	None	CG1, CR6,
	DICHLORIDE / PG II									CR19
2799	PHENYLPHOSPHORUS	8	None		None	BP001		1	None	CG1, CR6,
	THIODICHLORIDE / PG II									CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	G •6• /•	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2801	DYE, LIQUID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S. / PG I	8	None		274	BP001		None	None	
2801	DYE, LIQUID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S. / PG II	8	None		274	BP001		1	None	
2801	DYE, LIQUID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S. / PG III	8	None		274	BP001		5	None	
2802	COPPER CHLORIDE / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
2803	GALLIUM / PG III	8	None		None	BP800	SP41	5	None	
2805	LITHIUM HYDRIDE, FUSED SOLID / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	CR5
2806	LITHIUM NITRIDE / PG I	4.3	None		None	BP403	SP31	None	None	
2809	MERCURY / PG III	8	6.1		None	BP800		5	None	CG7, CG11
2810	TOXIC LIQUID, ORGANIC, N.O.S. / PG I	6.1	None		274 315	BP001		None	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cracifications	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2810	TOXIC LIQUID, ORGANIC, N.O.S. / PG II	6.1	None		274	BP001		0.1	0.1	
2810	TOXIC LIQUID, ORGANIC, N.O.S. / PG III	6.1	None		274	BP001		5	1	
2811	TOXIC SOLID, ORGANIC, N.O.S. / PG I	6.1	None		274	BP002		None	None	
2811	TOXIC SOLID, ORGANIC, N.O.S. / PG II	6.1	None		274	BP002		0.5	0.5	
2811	TOXIC SOLID, ORGANIC, N.O.S. / PG III	6.1	None		274	BP002		5	1	
2813	WATER-REACTIVE SOLID, N.O.S. / PG I	4.3	None		274	BP403	SP31	None	None	
2813	WATER-REACTIVE SOLID, N.O.S. / PG II	4.3	None		274	BP410	SP31 SP40	0.5	None	
2813	WATER-REACTIVE SOLID, N.O.S. / PG III	4.3	None		274	BP410	SP31	1	None	
2815	N-AMINOETHYLPIPERAZINE / PG III	8	6.1		None	BP001		5	None	CR5
	AMMONIUM HYDROGENDIFLUORIDE SOLUTION / PG II	8	6.1		None	BP001		1	None	CG1, CG2, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	AMMONIUM HYDROGENDIFLUORIDE SOLUTION / PG III	8	6.1		None	BP001		5	None	CG1, CG2, CR6, CR19
2818	AMMONIUM POLYSULPHIDE SOLUTION / PG II	8	6.1		None	BP001		1	None	CG2, CG18, CR5
2818	AMMONIUM POLYSULPHIDE SOLUTION / PG III	8	6.1		None	BP001		5	None	CG2, CG18, CR5
2819	AMYL ACID PHOSPHATE / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
2820	BUTYRIC ACID / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19
2821	PHENOL SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
2821	PHENOL SOLUTION / PG III	6.1	None		None	BP001		5	None	
2822	2-CHLOROPYRIDINE / PG II	6.1	None		None	BP001		0.1	None	
2823	CROTONIC ACID, SOLID / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
2826	ETHYL CHLOROTHIOFORMATE / PG II	8	3		None	BP001		None	None	CG1, CR6, CR19
2829	CAPROIC ACID / PG III	8	None		None	BP001		5	None	CG1, CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2830	LITHIUM FERROSILICON / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	
2831	1,1,1-TRICHLOROETHANE / PG III	6.1	None		None	BP001		5	None	CG10
2834	PHOSPHOROUS ACID / PG III	8	None		None	BP002		5	None	CG1, CR6, CR19
2835	SODIUM ALUMINIUM HYDRIDE / PG II	4.3	None		None	BP410	SP31 SP40	0.5	None	CR5
12837	BISULPHATES, AQUEOUS SOLUTION / PG II	8	None		None	BP001		1	None	
2837	BISULPHATES, AQUEOUS SOLUTION / PG III	8	None		None	BP001		5	None	
2838	VINYL BUTYRATE, STABILIZED / PG II	3	None		None	BP001		1	None	
2839	ALDOL / PG II	6.1	None		None	BP001		0.1	None	
2840	BUTYRALDOXIME / PG III	3	None		None	BP001		5	None	
2841	DI-n-AMYLAMINE / PG III	3	6.1		None	BP001		5	None	CR5
2842	NITROETHANE / PG III	3	None		None	BP001		5	None	
2844	CALCIUM MANGANESE SILICON / PG III	4.3	None		None	BP410	SP31	1	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G '0' ('	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
12845	PYROPHORIC LIQUID,	4.2	None		274	BP400		None	None	
	ORGANIC, N.O.S. / PG I		1,011		_,.	21 .00			1,0110	
2846	PYROPHORIC SOLID,	4.2	None		274	BP404	SP31	None	None	
2040	ORGANIC, N.O.S. / PG I	7.2	Tione		274	DI 404	51 51	TTOILE	Ttone	
2849	3-CHLORO-PROPANOL-1 / PG III	6.1	None		None	BP001		5	None	
2850	PROPYLENE TETRAMER / PG III	3	None		None	BP001		5	None	
2851	BORON TRIFLUORIDE DIHYDRATE / PG II	8	None		None	BP001		1	None	CG1, CR6, CR19
2852	DIPICRYL SULPHIDE, WETTED / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP24 SP31	None	None	
2853	MAGNESIUM FLUOROSILICATE / PG III	6.1	None		None	BP002		5	None	CR5
2854	AMMONIUM FLUOROSILICATE / PG III	6.1	None		None	BP002		5	None	CG2, CR5
2855	ZINC FLUOROSILICATE / PG III	6.1	None		None	BP002		5	None	CG7, CR5
12856	FLUOROSILICATES, N.O.S. / PG III	6.1	None		274	BP002		5	None	CR5
2858	ZIRCONIUM, DRY / PG III	4.1	None	Coiled wire, finished metal sheets, strip (thinner than 254	None	BP002	SP100	5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				microns but not thinner than 18						
				microns)						
2859	AMMONIUM METAVANADATE	6.1	None		None	BP002		0.5	None	CG2, CR31
2037	/ PG II	0.1	Trone		TVOILE	<b>D1</b> 002		0.5	Tione	CG2, CR31
2861	AMMONIUM POLYVANADATE	6.1	None		None	BP002		0.5	None	CG2, CR31
2001	/ PG II	0.1	Tone		TVOILE	DI 002		0.5	TTOILE	CG2, CR31
				Non-fused form.						
	VANADIUM PENTOXIDE / PG			Vanadium pentoxide, fused and						
2862	III	6.1	None	solidified, is not subject to the	None	BP002		5	None	
				Dangerous Goods Ordinance						
				(Cap. 295).						
2863	SODIUM AMMONIUM	6.1	None		None	BP002		0.5	None	CG2
2003	VANADATE / PG II	0.1	Trone		TVOILE	DI 002		0.5	Trone	CG2
2864	POTASSIUM METAVANADATE	6.1	None		None	BP002		0.5	None	
2004	/ PG II	0.1	Trone		TVOILE	DI 002		0.5	TVOILE	
2865	HYDROXYLAMINE SULPHATE	8	None		None	BP002		5	None	CG1, CR5, CR6,
2003	/ PG III		Tone		TVOIC	DI 002		<i>J</i>	TTOILE	CR19
2869	TITANIUM TRICHLORIDE	8	None		None	BP002		1	None	CG1, CG7,
2009	MIXTURE / PG II	o	TNUITE		TAOHE	DI 002		1	TAOHE	CR6, CR19
2869	TITANIUM TRICHLORIDE	8	None		None	BP002		5	None	CG1, CG7,
2009	MIXTURE / PG III	υ	TAOHE		TAOHE	DI 002		<i>J</i>	TAOHE	CR6, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2870	ALUMINIUM BOROHYDRIDE / PG I	4.2	4.3		None	BP400		None	None	
2871	ANTIMONY POWDER / PG III	6.1	None		None	BP002		5	None	
2872	DIBROMOCHLOROPROPANES / PG II	6.1	None		None	BP001		0.1	None	CG10
2872	DIBROMOCHLOROPROPANES / PG III	6.1	None		None	BP001		5	None	CG10
2873	DIBUTYLAMINOETHANOL / PG III	6.1	None		None	BP001		5	None	
2874	FURFURYL ALCOHOL / PG III	6.1	None		None	BP001		5	None	CR3, CR5
2875	HEXACHLOROPHENE / PG III	6.1	None		None	BP002		5	None	
2876	RESORCINOL / PG III	6.1	None		None	BP002		5	None	
2878	TITANIUM, SPONGE GRANULES or TITANIUM, SPONGE POWDERS / PG III	4.1	None		None	BP002	SP100	5	None	CG7, CG15, CR3
2879	SELENIUM OXYCHLORIDE / PG I	8	6.1		None	BP001		None	None	CG1, CR6, CR19
2880	CALCIUM HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE / PG II	5.1	None	With not less than 5.5% but not more than 16% water	322	BP002		1	1	CG8, CR5, CR10, CR19, CR28

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crost finations	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2880	CALCIUM HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE / PG III	5.1	None	With not less than 5.5% but not more than 16% water	None	BP002		5	5	CG8, CR5, CR10, CR19, CR28
2881	METAL CATALYST, DRY / PG I	4.2	None		274	BP404	SP31	None	None	CG7, CG15
2881	METAL CATALYST, DRY / PG II	4.2	None		274	BP410	SP31	None	None	CG7, CG15
2881	METAL CATALYST, DRY / PG III	4.2	None		274	BP002	SP31	None	None	CG7, CG15
2901	BROMINE CHLORIDE	2.3	5.1, 8		None	BP200		None	None	CG19, CR7
2904	CHLOROPHENOLATES, LIQUID or PHENOLATES, LIQUID / PG III	8	None		None	BP001		5	None	
2905	CHLOROPHENOLATES, SOLID or PHENOLATES, SOLID / PG III	8	None		None	BP002		5	None	
2907	ISOSORBIDE DINITRATE MIXTURE / PG II	4.1		With not less than 60% lactose, mannose, starch, or calcium hydrogen phosphate	127	BP406	SP26	None	None	
12920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. / PG I	8	3		274	BP001		None	None	
2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S. / PG II	8	3		274	BP001		1	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
12921	CORROSIVE SOLID, FLAMMABLE, N.O.S. / PG I	8	4.1		274	BP002		None	None	
2921	CORROSIVE SOLID, FLAMMABLE, N.O.S. / PG II	8	4.1		274	BP002		1	None	
2922	CORROSIVE LIQUID, TOXIC, N.O.S. / PG I	8	6.1		274	BP001		None	None	
2922	CORROSIVE LIQUID, TOXIC, N.O.S. / PG II	8	6.1		274	BP001		1	None	
2922	CORROSIVE LIQUID, TOXIC, N.O.S. / PG III	8	6.1		274	BP001		5	None	
2923	CORROSIVE SOLID, TOXIC, N.O.S. / PG I	8	6.1		274	BP002		None	None	
2923	CORROSIVE SOLID, TOXIC, N.O.S. / PG II	8	6.1		274	BP002		1	None	
2923	CORROSIVE SOLID, TOXIC, N.O.S. / PG III	8	6.1		274	BP002		5	None	
2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. / PG I	3	8		274	BP001		None	None	
2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. / PG II	3	8		274	BP001		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. / PG III	3	8		274	BP001		5	None	
2925	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S. / PG II	4.1	8		274	BP002		1	None	
2925	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S. / PG III	4.1	8		274	BP002		5	None	
2926	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. / PG II	4.1	6.1		274	BP002		1	None	
2926	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. / PG III	4.1	6.1		274	BP002		5	None	
2927	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. / PG I	6.1	8		274 315	BP001		None	None	
2927	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. / PG II	6.1	8		274	BP001		0.1	None	
2928	TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. / PG I	6.1	8		274	BP002		None	None	
2928	TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. / PG II	6.1	8		274	BP002		0.5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cu a sifi a a 4 i a u a	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. / PG I	6.1	3		274 315	BP001		None	None	
2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. / PG II	6.1	3		274	BP001		0.1	None	
2930	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S. / PG I	6.1	4.1		274	BP002		None	None	
2930	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S. / PG II	6.1	4.1		274	BP002		0.5	None	
2931	VANADYL SULPHATE / PG II	6.1	None		None	BP002		0.5	None	
2933	METHYL 2- CHLOROPROPIONATE / PG III	3	None		None	BP001		5	None	
12934	ISOPROPYL 2- CHLOROPROPIONATE / PG III	3	None		None	BP001		5	None	
2935	ETHYL 2- CHLOROPROPIONATE / PG III	3	None		None	BP001		5	None	
2936	THIOLACTIC ACID / PG II	6.1	None		None	BP001		0.1	None	
2937	alpha-METHYLBENZYL ALCOHOL, LIQUID / PG III	6.1	None		None	BP001		5	None	
2940	9-PHOSPHABICYCLONONANES (also known as	4.2	None		None	BP410	SP31	None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary Hazard	Specifications	SN	Packing (Appendix 5)		1.0	MDC	Compatibility
No.	Packing Group (if any)				(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	CYCLOOCTADIENE PHOSPHINES) / PG II									
2941	FLUOROANILINES / PG III	6.1	None		None	BP001		5	None	
	2- TRIFLUOROMETHYLANILINE / PG III	6.1	None		None	BP001		5	None	
2943	TETRAHYDROFURFURYLAMI NE / PG III	3	None		None	BP001		5	None	
2945	N-METHYLBUTYLAMINE / PG II	3	8		None	BP001		1	None	CR5
2946	2-AMINO-5- DIETHYLAMINOPENTANE / PG III	6.1	None		None	BP001		5	None	
2947	ISOPROPYL CHLOROACETATE / PG III	3	None		None	BP001		5	None	
	3- TRIFLUOROMETHYLANILINE / PG II	6.1	None		None	BP001		0.1	None	
12949	SODIUM HYDROSULPHIDE, HYDRATED / PG II	8	None	With not less than 25% water of crystallization	None	BP002		1	None	CG18, CR5

**(1) (2) (3) (4) (5)** Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN **Compatibility Specifications MPS** LQ Class Packing Group (if any) Hazard (Appendix 4) BP 2.3.3 No. SP Particle size ranging from 149 to 2 000 microns. MAGNESIUM GRANULES. 2950 4.3 Bars, ingots or sticks are not SP100 CG15, CR5 BP410 None None None COATED / PG III subject to the Dangerous Goods Ordinance (Cap. 295). 5-tert-BUTYL- 2,4,6-TRINITRO-2956 m-XYLENE (also known as MUSK 4.1 None None BP409 5 None XYLENE) / PG III **BORON TRIFLUORIDE** 2965 4.3 3, 8 SP31 CR30 **BP401** None None None DIMETHYL ETHERATE / PG I BP001 2966 THIOGLYCOL / PG II 6.1 None None 0.1 None CG1, CR6, 2967 SULPHAMIC ACID / PG III 8 5 None None BP002 None CR19 MANEB, STABILIZED or

Stabilized against self-heating

With not less than 8% but less

than 20% hydrogen peroxide

(stabilized as necessary)

With not more than 30%

ethylene oxide

2968 MANEB PREPARATION.

STABILIZED / PG III

PG I

2984

ETHYLENE OXIDE AND

HYDROGEN PEROXIDE,

AQUEOUS SOLUTION / PG III

2983 PROPYLENE OXIDE MIXTURE

4.3

5.1

None

6.1

None

**(7)** 

**(8)** 

**(9)** 

**(6)** 

None

None

None

BP002

BP001

**BP504** 

SP100

1

None

5

None

None

CR5

CR4, CR27

**(10)** 

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	CHLOROSILANES, FLAMMABLE, CORROSIVE, N.O.S. / PG II	3	8		None	BP010		None	None	CG1, CR6, CR19
2986	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S. / PG II	8	3		None	BP010		None	None	CG1, CR6, CR19
2987	CHLOROSILANES, CORROSIVE, N.O.S. / PG II	8	None		None	BP010		None	None	CG1, CR6, CR19
2988	CHLOROSILANES, WATER- REACTIVE, FLAMMABLE, CORROSIVE, N.O.S. / PG I	4.3	3, 8		None	BP401	SP31	None	None	CG1, CR6, CR19, CR30
2989	LEAD PHOSPHITE, DIBASIC / PG II	4.1	None		None	BP002		1	None	CG7, CG9
2989	LEAD PHOSPHITE, DIBASIC / PG III	4.1	None		None	BP002		5	None	CG7, CG9
3022	1,2-BUTYLENE OXIDE, STABILIZED / PG II	3	None		None	BP001		1	None	
3023	2-METHYL-2-HEPTANETHIOL / PG I	6.1	3		354	BP602		None	None	
3054	CYCLOHEXYL MERCAPTAN / PG III	3	None		None	BP001		5	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3055	2-(2-AMINOETHOXY)ETHANOL / PG III	8	None		None	BP001		5	None	CR5
3056	n-HEPTALDEHYDE / PG III	3	None		None	BP001		5	None	
3057	TRIFLUOROACETYL CHLORIDE	2.3	8		None	BP200		None	None	CR7
3064	NITROGLYCERIN, SOLUTION IN ALCOHOL / PG II	3	None	With more than 1% but not more than 5% nitroglycerin	359	BP300		None	None	
3065	ALCOHOLIC BEVERAGES / PG II	3	None	With more than 70% alcohol by volume	None	BP001		N/A	N/A	
3065	ALCOHOLIC BEVERAGES / PG III	3	None	With more than 35% but not more than 70% alcohol by volume.  This item is not subject to the Dangerous Goods Ordinance (Cap. 295) if it contains not more than 35% alcohol by volume.	247	BP001		N/A	N/A	
3066	PAINT RELATED MATERIAL / PG II	8	None	Including paint thinning or reducing compound	163	BP001		1	None	
3066	PAINT RELATED MATERIAL / PG III	8	None	Including paint thinning or reducing compound	163	BP001		5	None	

**(1) (2) (3) (4) (5) (6) (7) (9)** (10)**(8)** Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN **Compatibility Specifications** LQ Class **MPS** No. Packing Group (if any) Hazard (Appendix 4) BP 2.3.3 SP ETHYLENE OXIDE AND With not more than 12.5% 3070 DICHLORODIFLUOROMETHAN 2.2 BP200 0.12 None None None ethylene oxide E MIXTURE MERCAPTANS, LIQUID, TOXIC, FLAMMABLE, N.O.S. or 3071 MERCAPTAN MIXTURE, 6.1 3 BP001 0.1 274 None LIQUID, TOXIC, FLAMMABLE, N.O.S. / PG II VINYLPYRIDINES, CG18, CR5, 3073 3, 8 BP001 0.1 6.1 None None STABILIZED / PG II CR30 SP31 3078 CERIUM / PG II 4.3 Turnings or gritty powder CG15, CR5 None None BP410 0.5 None **SP40** METHACRYLONITRILE, 3079 6.1 3 354 BP602 None None STABILIZED / PG I ISOCYANATES, TOXIC, FLAMMABLE, N.O.S. or 3080 ISOCYANATE SOLUTION, 3 274 BP001 0.1 None 6.1 TOXIC, FLAMMABLE, N.O.S. / PG II 3083 PERCHLORYL FLUORIDE 2.3 CG19, CR7 5.1 BP200 None None None CORROSIVE SOLID, 3084 8 5.1 274 BP002 None None OXIDIZING, N.O.S. / PG I

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3084	CORROSIVE SOLID, OXIDIZING, N.O.S. / PG II	8	5.1		274	BP002		1	None	
3085	OXIDIZING SOLID, CORROSIVE, N.O.S. / PG I	5.1	8		274	BP503		None	None	CR10, CR19, CR28
3085	OXIDIZING SOLID, CORROSIVE, N.O.S. / PG II	5.1	8		274	BP002		1	None	CR10, CR19, CR28
3085	OXIDIZING SOLID, CORROSIVE, N.O.S. / PG III	5.1	8		274	BP002		5	None	CR10, CR19, CR28
3086	TOXIC SOLID, OXIDIZING, N.O.S. / PG I	6.1	5.1		274	BP002		None	None	
3086	TOXIC SOLID, OXIDIZING, N.O.S. / PG II	6.1	5.1		274	BP002		0.5	None	
3087	OXIDIZING SOLID, TOXIC, N.O.S. / PG I	5.1	6.1		274	BP503		None	None	CR10, CR19, CR28
13087	OXIDIZING SOLID, TOXIC, N.O.S. / PG II	5.1	6.1		274	BP002		1	None	CR10, CR19, CR28
3087	OXIDIZING SOLID, TOXIC, N.O.S. / PG III	5.1	6.1		274	BP002		5	None	CR10, CR19, CR28
3088	SELF-HEATING SOLID, ORGANIC, N.O.S. / PG II	4.2	None		274	BP410	SP31	None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (A)	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3088	SELF-HEATING SOLID, ORGANIC, N.O.S. / PG III	4.2	None		274	BP002	SP31	None	None	
3089	METAL POWDER, FLAMMABLE, N.O.S. / PG II	4.1	None		None	BP002	SP100	1	None	CG7, CG15, CR3
3089	METAL POWDER, FLAMMABLE, N.O.S. / PG III	4.1	None		None	BP002	SP100	5	None	CG7, CG15, CR3
3092	1-METHOXY-2-PROPANOL / PG III	3	None		None	BP001		5	None	
3093	CORROSIVE LIQUID, OXIDIZING, N.O.S. / PG I	8	5.1		274	BP001		None	None	
3093	CORROSIVE LIQUID, OXIDIZING, N.O.S. / PG II	8	5.1		274	BP001		1	None	
3094	CORROSIVE LIQUID, WATER- REACTIVE, N.O.S. / PG I	8	4.3		274	BP001		None	None	
3094	CORROSIVE LIQUID, WATER- REACTIVE, N.O.S. / PG II	8	4.3		274	BP001		1	None	
3095	CORROSIVE SOLID, SELF- HEATING, N.O.S. / PG I	8	4.2		274	BP002		None	None	
3095	CORROSIVE SOLID, SELF- HEATING, N.O.S. / PG II	8	4.2		274	BP002		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3096	CORROSIVE SOLID, WATER- REACTIVE, N.O.S. / PG I	8	4.3		274	BP002		None	None	
3096	CORROSIVE SOLID, WATER- REACTIVE, N.O.S. / PG II	8	4.3		274	BP002	SP100	1	None	
3097	FLAMMABLE SOLID, OXIDIZING, N.O.S. / PG II	4.1	5.1		274	BP099		1	None	
3097	FLAMMABLE SOLID, OXIDIZING, N.O.S. / PG III	4.1	5.1		274	BP099		5	None	
3098	OXIDIZING LIQUID, CORROSIVE, N.O.S. / PG I	5.1	8		274	BP502		None	None	CR10, CR19, CR28
3098	OXIDIZING LIQUID, CORROSIVE, N.O.S. / PG II	5.1	8		274	BP504		1	None	CR10, CR19, CR28
13098	OXIDIZING LIQUID, CORROSIVE, N.O.S. / PG III	5.1	8		274	BP504		5	None	CR10, CR19, CR28
13099	OXIDIZING LIQUID, TOXIC, N.O.S. / PG I	5.1	6.1		274	BP502		None	None	CR10, CR19, CR28
3099	OXIDIZING LIQUID, TOXIC, N.O.S. / PG II	5.1	6.1		274	BP504		1	None	CR10, CR19, CR28
3099	OXIDIZING LIQUID, TOXIC, N.O.S. / PG III	5.1	6.1		274	BP504		5	None	CR10, CR19, CR28

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
13100	OXIDIZING SOLID, SELF- HEATING, N.O.S. / PG I	5.1	4.2		274	BP099		None	None	
13100	OXIDIZING SOLID, SELF- HEATING, N.O.S. / PG II	5.1	4.2		274	BP099		None	None	
3101	ORGANIC PEROXIDE TYPE B, LIQUID	5.2	None		122 274	BP520	SP101	0.025	None	CR5, CR6
13102	ORGANIC PEROXIDE TYPE B, SOLID	5.2	None		122 274	BP520	SP101	0.1	None	CR5, CR6
3103	ORGANIC PEROXIDE TYPE C, LIQUID	5.2	None		122 274	BP520		0.025	None	CR5, CR6
3104	ORGANIC PEROXIDE TYPE C, SOLID	5.2	None		122 274	BP520		0.1	None	CR5, CR6
3105	ORGANIC PEROXIDE TYPE D, LIQUID	5.2	None		122 274	BP520		0.125	None	CR5, CR6
13106	ORGANIC PEROXIDE TYPE D, SOLID	5.2	None		122 274	BP520		0.5	None	CR5, CR6
3107	ORGANIC PEROXIDE TYPE E, LIQUID	5.2	None		122 274	BP520		0.125	None	CR5, CR6
3108	ORGANIC PEROXIDE TYPE E, SOLID	5.2	None		122 274	BP520		0.5	None	CR5, CR6

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	<b>(9)</b>	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3109	ORGANIC PEROXIDE TYPE F, LIQUID	5.2	None		122 274	BP520		0.125	None	CR5, CR6
3110	ORGANIC PEROXIDE TYPE F, SOLID	5.2	None		122 274	BP520		0.5	None	CR5, CR6
	ORGANIC PEROXIDE TYPE B, LIQUID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520	SP101	None	None	CR5, CR6
3112	ORGANIC PEROXIDE TYPE B, SOLID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520	SP101	None	None	CR5, CR6
3113	ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
	ORGANIC PEROXIDE TYPE C, SOLID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
3115	ORGANIC PEROXIDE TYPE D, LIQUID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
	ORGANIC PEROXIDE TYPE D, SOLID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
	CONTROLLED									

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	ORGANIC PEROXIDE TYPE E, LIQUID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
3118	ORGANIC PEROXIDE TYPE E, SOLID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
	ORGANIC PEROXIDE TYPE F, LIQUID, TEMPERATURE CONTROLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
3120	ORGANIC PEROXIDE TYPE F, SOLID, TEMPERATURE CONTOLLED	5.2	None		122 274	BP520		None	None	CR5, CR6
13121	OXIDIZING SOLID, WATER- REACTIVE, N.O.S. / PG I	5.1	4.3		274	BP099		None	None	
13121	OXIDIZING SOLID, WATER- REACTIVE, N.O.S. / PG II	5.1	4.3		274	BP099		1	None	
3122	TOXIC LIQUID, OXIDIZING, N.O.S. / PG I	6.1	5.1		274 315	BP001		None	None	
3122	TOXIC LIQUID, OXIDIZING, N.O.S. / PG II	6.1	5.1		274	BP001		0.1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)		MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3123	TOXIC LIQUID, WATER- REACTIVE, N.O.S. / PG I	6.1	4.3		274 315	BP099		None	None	
3123	TOXIC LIQUID, WATER- REACTIVE, N.O.S. / PG II	6.1	4.3		274	BP001		0.1	None	
3124	TOXIC SOLID, SELF-HEATING, N.O.S. / PG I	6.1	4.2		274	BP002		None	None	
3124	TOXIC SOLID, SELF-HEATING, N.O.S. / PG II	6.1	4.2		274	BP002		None	None	
3125	TOXIC SOLID, WATER- REACTIVE, N.O.S. / PG I	6.1	4.3		274	BP099		None	None	
3125	TOXIC SOLID, WATER- REACTIVE, N.O.S. / PG II	6.1	4.3		274	BP002	SP100	0.5	None	
3126	SELF-HEATING SOLID, CORROSIVE, ORGANIC, N.O.S. / PG II	4.2	8		274	BP410		None	None	
3126	SELF-HEATING SOLID, CORROSIVE, ORGANIC, N.O.S. / PG III	4.2	8		274	BP002		None	None	
13127	SELF-HEATING SOLID, OXIDIZING, N.O.S. / PG II	4.2	5.1		274	BP099		None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cuarifications	SN	Packing (Ap	pendix 5)		MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
13127	SELF-HEATING SOLID, OXIDIZING, N.O.S. / PG III	4.2	5.1		274	BP099		None	None	
3128	SELF-HEATING SOLID, TOXIC, ORGANIC, N.O.S. / PG II	4.2	6.1		274	BP410		None	None	
3128	SELF-HEATING SOLID, TOXIC, ORGANIC, N.O.S. / PG III	4.2	6.1		274	BP002		None	None	
3129	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. / PG I	4.3	8		274	BP402		None	None	
13129	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. / PG II	4.3	8		274	BP402		0.5	None	
13129	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. / PG III	4.3	8		274	BP001		1	None	
3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S. / PG I	4.3	6.1		274	BP402		None	None	
13130	WATER-REACTIVE LIQUID, TOXIC, N.O.S. / PG II	4.3	6.1		274	BP402		0.5	None	
3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S. / PG III	4.3	6.1		274	BP001		1	None	
3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S. / PG I	4.3	8		274	BP403	SP31	None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)		MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S. / PG II	4.3	8		274	BP410	SP31 SP40	0.5	None	
3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S. / PG III	4.3	8		274	BP410	SP31	1	None	
3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S. / PG I	4.3	4.1		274	BP403	SP31	None	None	
3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S. / PG II	4.3	4.1		274	BP410	SP31 SP40	0.5	None	
3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S. / PG III	4.3	4.1		274	BP410	SP31	1	None	
3133	WATER-REACTIVE SOLID, OXIDIZING, N.O.S. / PG II	4.3	5.1		274	BP099		0.5	None	
3133	WATER-REACTIVE SOLID, OXIDIZING, N.O.S. / PG III	4.3	5.1		274	BP099		1	None	
3134	WATER-REACTIVE SOLID, TOXIC, N.O.S. / PG I	4.3	6.1		274	BP403	SP31	None	None	
3134	WATER-REACTIVE SOLID, TOXIC, N.O.S. / PG II	4.3	6.1		274	BP410	SP31 SP40	0.5	None	
3134	WATER-REACTIVE SOLID, TOXIC, N.O.S. / PG III	4.3	6.1		274	BP410	SP31	1	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Chasiff antions	SN	Packing (A)	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3135	WATER-REACTIVE SOLID, SELF-HEATING, N.O.S. / PG I	4.3	4.2		274	BP403	SP31	None	None	
3135	WATER-REACTIVE SOLID, SELF-HEATING, N.O.S. / PG II	4.3	4.2		274	BP410	SP31	None	None	
3135	WATER-REACTIVE SOLID, SELF-HEATING, N.O.S. / PG III	4.3	4.2		274	BP410	SP31	None	None	
3136	TRIFLUOROMETHANE, REFRIGERATED LIQUID	2.2	None		None	BP203		0.12	None	
13137	OXIDIZING SOLID, FLAMMABLE, N.O.S. / PG I	5.1	4.1		274	BP099		None	None	
3138	ETHYLENE, ACETYLENE AND PROPYLENE MIXTURE, REFRIGERATED LIQUID	2.1	None	Containing at least 71.5% ethylene, with not more than 22.5% acetylene and not more than 6% propylene	None	BP203		None	None	CR16, CR7
3139	OXIDIZING LIQUID, N.O.S. / PG I	5.1	None		274	BP502		None	None	CR10, CR19, CR28
3139	OXIDIZING LIQUID, N.O.S. / PG II	5.1	None		274	BP504		1	1	CR10, CR19, CR28
3139	OXIDIZING LIQUID, N.O.S. / PG III	5.1	None		274	BP504		5	1	CR10, CR19, CR28

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3140	ALKALOIDS, LIQUID, N.O.S. or ALKALOIDS SALTS, LIQUID, N.O.S. / PG I	6.1	None		274	BP001		None	None	
	ALKALOIDS, LIQUID, N.O.S. or ALKALOIDS SALTS, LIQUID, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	
	ALKALOIDS, LIQUID, N.O.S. or ALKALOIDS SALTS, LIQUID, N.O.S. / PG III	6.1	None		274	BP001		5	None	
3141	ANTIMONY COMPOUND, INORGANIC, LIQUID, N.O.S. / PG III	6.1	None	Antimony sulphides and oxides which contain not more than 0.5% of arsenic calculated on the total mass are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP001		5	None	
3142	DISINFECTANT, LIQUID, TOXIC, N.O.S. / PG I	6.1	None		274	BP001		None	None	
3142	DISINFECTANT, LIQUID, TOXIC, N.O.S. / PG II	6.1	None		274	BP001		0.1	0.1	
3142	DISINFECTANT, LIQUID, TOXIC, N.O.S. / PG III	6.1	None		274	BP001		5	1	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	DYE, SOLID, TOXIC, N.O.S. or DYE INTERMEDIATE, SOLID, TOXIC, N.O.S. / PG I	6.1	None		274	BP002		None	None	
3143	DYE, SOLID, TOXIC, N.O.S. or DYE INTERMEDIATE, SOLID, TOXIC, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
3143	DYE, SOLID, TOXIC, N.O.S. or DYE INTERMEDIATE, SOLID, TOXIC, N.O.S. / PG III	6.1	None		274	BP002		5	None	
13144	NICOTINE COMPOUND, LIQUID, N.O.S. or NICOTINE PREPARATION, LIQUID, N.O.S. / PG I	6.1	None		274	BP001		None	None	
13144	NICOTINE COMPOUND, LIQUID, N.O.S. or NICOTINE PREPARATION, LIQUID, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	
13144	NICOTINE COMPOUND, LIQUID, N.O.S. or NICOTINE PREPARATION, LIQUID, N.O.S. / PG III	6.1	None		274	BP001		5	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	1	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifications	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3145	ALKYLPHENOLS, LIQUID, N.O.S. / PG I	8	None	Including C <sub>2</sub> -C <sub>12</sub> homologues	None	BP001		None	None	
3145	ALKYLPHENOLS, LIQUID, N.O.S. / PG II	8	None	Including C <sub>2</sub> -C <sub>12</sub> homologues	None	BP001		1	None	
3145	ALKYLPHENOLS, LIQUID, N.O.S. / PG III	8	None	Including C <sub>2</sub> -C <sub>12</sub> homologues	None	BP001		5	None	
3146	ORGANOTIN COMPOUND, SOLID, N.O.S. / PG I	6.1	None		274	BP002		None	None	
3146	ORGANOTIN COMPOUND, SOLID, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
3146	ORGANOTIN COMPOUND, SOLID, N.O.S. / PG III	6.1	None		274	BP002		5	None	
3147	DYE, SOLID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, SOLID, CORROSIVE, N.O.S. / PG I	8	None		274	BP002		None	None	
3147	DYE, SOLID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, SOLID, CORROSIVE, N.O.S. / PG II	8	None		274	BP002		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3147	DYE, SOLID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, SOLID, CORROSIVE, N.O.S. / PG III	8	None		274	BP002		5	None	
3148	WATER-REACTIVE LIQUID, N.O.S. / PG I	4.3	None		274	BP402	SP31	None	None	
3148	WATER-REACTIVE LIQUID, N.O.S. / PG II	4.3	None		274	BP402	SP31	0.5	None	
3148	WATER-REACTIVE LIQUID, N.O.S. / PG III	4.3	None		274	BP001	SP31	1	None	
3149	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED / PG II	5.1	8	With acid(s), water and not more than 5% peroxyacetic acid	None	BP504	SP10	1	None	CG16, CR4, CR27
3150	HYDROCARBON GAS REFILLS FOR SMALL DEVICES	2.1	None	With release device. This item is pre-packed.	None	BP003		None	None	CR7
3153	PERFLUORO(METHYL VINYL ETHER)	2.1	None		None	BP200		None	None	CR7
3154	PERFLUORO(ETHYL VINYL ETHER)	2.1	None		None	BP200		None	None	CR7
3155	PENTACHLOROPHENOL / PG II	6.1	None		None	BP002		0.5	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3156	COMPRESSED GAS, OXIDIZING, N.O.S.	2.2	5.1		274	BP200		None	None	CG19
3157	LIQUEFIED GAS, OXIDIZING, N.O.S.	2.2	5.1		274	BP200		None	None	CG19
3158	GAS, REFRIGERATED LIQUID, N.O.S.	2.2	None		274	BP203		0.12	None	
3159	1,1,1,2- TETRAFLUOROETHANE (also known as REFRIGERANT GAS R 134a)	2.2	None		None	BP200		0.12	None	
3160	LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S.	2.3	2.1		274	BP200		None	None	CR7
3161	LIQUEFIED GAS, FLAMMABLE, N.O.S.	2.1	None		274	BP200		None	None	CR7
3162	LIQUEFIED GAS, TOXIC, N.O.S.	2.3	None		274	BP200		None	None	CR7
3163	LIQUEFIED GAS, N.O.S.	2.2	None		274	BP200		0.12	None	
3170	ALUMINIUM SMELTING BY- PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS / PG II	4.3	None	This item includes aluminium dross, aluminium skimmings, spent cathodes, spent potliner and aluminium salt slags.	None	BP410	SP31 SP40	0.5	None	CG15
13170	ALUMINIUM SMELTING BY- PRODUCTS or ALUMINIUM	4.3	None	This item includes aluminium dross, aluminium skimmings,	None	BP002	SP31	1	None	CG15

<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	<b>(6)</b>	<b>(7</b> )	(8)	9) (10)
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UN	Proper Shipping Name /	CI	Subsidiary	G •6• /•	SN	Packing (A <sub>l</sub>	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	REMELTING BY- PRODUCTS /			spent cathodes, spent potliner						
	PG III			and aluminium salt slags.						
				Toxins from plant, animal or						
				bacterial sources which contain						
	TOXINS, EXTRACTED FROM			infectious substances, or toxins						
3172	LIVING SOURCES, LIQUID,	6.1	None	that are contained in infectious	274	BP001		None	None	
	N.O.S. / PG I			substances, are not subject to the						
				Dangerous Goods Ordinance						
				(Cap. 295).						
				Toxins from plant, animal or						
				bacterial sources which contain						
	TOXINS, EXTRACTED FROM			infectious substances, or toxins						
3172	LIVING SOURCES, LIQUID,	6.1	None	that are contained in infectious	274	BP001		0.1	None	
	N.O.S. / PG II			substances, are not subject to the						
				Dangerous Goods Ordinance						
				(Cap. 295).						
				Toxins from plant, animal or						
	TOXINS, EXTRACTED FROM			bacterial sources which contain						
3172	LIVING SOURCES, LIQUID,	6.1	None	infectious substances, or toxins	274	BP001		5	None	
	N.O.S. / PG III			that are contained in infectious						
				substances, are not subject to the						

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifiastiana	SN	Packing (A	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				Dangerous Goods Ordinance (Cap. 295).						
3174	TITANIUM DISULPHIDE / PG III	4.2	None		None	BP002	SP31	None	None	CG7
3175	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. / PG II	4.1	None	Sealed packets and articles containing less than 10 ml of a packing group II or III flammable liquid absorbed into a solid material are not subject to the Dangerous Goods Ordinance (Cap. 295) provided there is no free liquid in the packet or article.	274	BP002		1	1	
3176	FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S. / PG II	4.1	None		274			None	None	
3176	FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S. / PG III	4.1	None		274			None	None	
-13178	FLAMMABLE SOLID, INORGANIC, N.O.S. / PG II	4.1	None		274	BP002		1	1	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
13178	FLAMMABLE SOLID, INORGANIC, N.O.S. / PG III	4.1	None		274	BP002		5	1	
13179	FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S. / PG II	4.1	6.1		274	BP002		1	None	
13179	FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S. / PG III	4.1	6.1		274	BP002		5	None	
3180	FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S. / PG II	4.1	8		274	BP002		1	None	
3180	FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S. / PG III	4.1	8		274	BP002		5	None	
	METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. / PG II	4.1	None		274	BP002	SP31	1	None	CG7
3181	METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. / PG III	4.1	None		274	BP002	SP31	5	None	CG7
13182	METAL HYDRIDES, FLAMMABLE, N.O.S. / PG II	4.1	None		274	BP410	SP31 SP40	1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (A)	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3182	METAL HYDRIDES,	4.1	None		274	BP002	SP31	5	None	
3102	FLAMMABLE, N.O.S. / PG III	7.1	Trone		214	DI 002	51 51	3	Ttone	
3183	SELF-HEATING LIQUID,	4.2	None		274	BP001	SP31	None	None	
3103	ORGANIC, N.O.S. / PG II	1.2	Tione		271	<b>D1</b> 001	51 51	Tione	Tione	
3183	SELF-HEATING LIQUID,	4.2	None		274	BP001	SP31	None	None	
3103	ORGANIC, N.O.S. / PG III	1.2	Tione		271	<b>D1</b> 001	51 51	Tione	Tione	
3184	SELF-HEATING LIQUID,	4.2	6.1		274	BP402	SP31	None	None	
3101	TOXIC, ORGANIC, N.O.S. / PG II	1.2	0.1		271	D1 102	51 51	Tione	Ttone	
	SELF-HEATING LIQUID,									
3184	TOXIC, ORGANIC, N.O.S. / PG	4.2	6.1		274	BP001	SP31	None	None	
	III									
	SELF-HEATING LIQUID,									
3185	CORROSIVE, ORGANIC, N.O.S. /	4.2	8		274	BP402	SP31	None	None	
	PG II									
	SELF-HEATING LIQUID,									
3185	CORROSIVE, ORGANIC, N.O.S. /	4.2	8		274	BP001	SP31	None	None	
	PG III									
3186	SELF-HEATING LIQUID,	4.2	None		274	BP001	SP31	None	None	
3100	INORGANIC, N.O.S. / PG II	7.2	Tione		217	DI 001	51 51	TOHC	110110	
3186	SELF-HEATING LIQUID,	4.2	None		274	BP001	SP31	None	None	
3100	INORGANIC, N.O.S. / PG III	7.2	Tione		217	<b>DI</b> 001	51 51	TOHC	140110	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3187	SELF-HEATING LIQUID, TOXIC, INORGANIC, N.O.S. / PG II	4.2	6.1		274	BP402	SP31	None	None	
3187	SELF-HEATING LIQUID, TOXIC, INORGANIC, N.O.S. / PG III	4.2	6.1		274	BP001	SP31	None	None	
	SELF-HEATING LIQUID, CORROSIVE, INORGANIC, N.O.S. / PG II	4.2	8		274	BP402	SP31	None	None	
3188	SELF-HEATING LIQUID, CORROSIVE, INORGANIC, N.O.S. / PG III	4.2	8		274	BP001	SP31	None	None	
13189	METAL POWDER, SELF- HEATING, N.O.S. / PG II	4.2	None		274	BP410	SP31	None	None	CG7, CG15
13189	METAL POWDER, SELF- HEATING, N.O.S. / PG III	4.2	None		274	BP002	SP31	None	None	CG7, CG15
3190	SELF-HEATING SOLID, INORGANIC, N.O.S. / PG II	4.2	None		274	BP410	SP31	None	None	
13190	SELF-HEATING SOLID, INORGANIC, N.O.S. / PG III	4.2	None		274	BP002	SP31	None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI.	Subsidiary	G •0• 4•	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3191	SELF-HEATING SOLID, TOXIC, INORGANIC, N.O.S. / PG II	4.2	6.1		274	BP410		None	None	
3191	SELF-HEATING SOLID, TOXIC, INORGANIC, N.O.S. / PG III	4.2	6.1		274	BP002		None	None	
3192	SELF-HEATING SOLID, CORROSIVE, INORGANIC, N.O.S. / PG II	4.2	8		274	BP410		None	None	
3192	SELF-HEATING SOLID, CORROSIVE, INORGANIC, N.O.S. / PG III	4.2	8		274	BP002		None	None	
3194	PYROPHORIC LIQUID, INORGANIC, N.O.S. / PG I	4.2	None		274	BP400		None	None	
3200	PYROPHORIC SOLID, INORGANIC, N.O.S. / PG I	4.2	None		274	BP404	SP31	None	None	
3205	ALKALINE EARTH METAL ALCOHOLATES, N.O.S. / PG II	4.2	None	The group of alkaline earth metals includes magnesium, calcium, strontium and barium.	274	BP410	SP31	None	None	
3205	ALKALINE EARTH METAL ALCOHOLATES, N.O.S. / PG III	4.2	None	The group of alkaline earth metals includes magnesium, calcium, strontium and barium.	274	BP002	SP31	None	None	

Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN **Compatibility Specifications MPS** LQ Class No. Packing Group (if any) Hazard (Appendix 4) BP 2.3.3 SP ALKALI METAL The group of alkali metals ALCOHOLATES, SELFincludes lithium, sodium, 8 3206 4.2 274 BP410 SP31 None None CG18, CR5 HEATING, CORROSIVE, N.O.S. / potassium, rubidium and PG II caesium. ALKALI METAL The group of alkali metals ALCOHOLATES, SELFincludes lithium, sodium, 3206 8 CG18, CR5 4.2 274 BP002 SP31 None None

**(6)** 

**(7)** 

**(9)** 

**(8)** 

(10)

**(5)** 

**(1)** 

**(2)** 

**(3)** 

**(4)** 

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	- CI	Subsidiary	G •0• /•	SN	Packing (A)	ppendix 5)	1.0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3209	METALLIC SUBSTANCE, WATER-REACTIVE, SELF- HEATING, N.O.S. / PG II	4.3	4.2		274	BP410	SP31 SP40	None	None	
3209	METALLIC SUBSTANCE, WATER-REACTIVE, SELF- HEATING, N.O.S. / PG III	4.3	4.2		274	BP410	SP31	None	None	
3210	CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG II	5.1	None	Ammonium chlorate and its aqueous solutions and mixtures of a chlorate with an ammonium salt are prohibited.	274	BP504		1	None	CR10, CR19, CR29
3210	CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG III	5.1	None	Ammonium chlorate and its aqueous solutions and mixtures of a chlorate with an ammonium salt are prohibited.	274	BP504		5	None	CR10, CR19, CR29
3211	PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG II	5.1	None		None	BP504		1	None	CG13, CR10, CR19, CR29
3211	PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG III	5.1	None		None	BP504		5	None	CG13, CR10, CR19, CR29

PG III

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	- CI	Subsidiary	G •0• (•	SN	Packing (Ap	pendix 5)	Ι.Ο.	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3212	HYPOCHLORITES, INORGANIC, N.O.S. / PG II	5.1	None	Mixtures of a hypochlorite with an ammonium salt are prohibited.  Hypochlorite mixtures with 10% or less available Chlorine are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		1	1	CG8, CR5, CR10, CR19, CR28
3213	BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG II	5.1	None	Ammonium bromate and its aqueous solutions and mixtures of a bromate with an ammonium salt are prohibited.	274	BP504		1	None	CG3, CR10, CR19, CR29
3213	BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG III	5.1	None	Ammonium bromate and its aqueous solutions and mixtures of a bromate with an ammonium salt are prohibited.	274	BP504		5	None	CG3, CR10, CR19, CR29
3214	PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG II	5.1	None	Ammonium permanganate and its aqueous solutions and mixtures of a permanganate with an ammonium salt are prohibited.	274	BP504		1	None	CG14, CR10, CR19, CR28, CR29

None

BP002

5

None

PERSULPHATES, INORGANIC,

N.O.S. / PG III

5.1

None

CR12, CR19

<b>(1)</b>	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3216	PERSULPHATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG III	5.1	None		None	BP504		5	None	CR10, CR19, CR29
	NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG II	5.1	None		270	BP504		1	None	CR10, CR19, CR29
	NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG III	5.1	None		270	BP504		5	None	CR10, CR19, CR29
3219	NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG II	5.1	None	Ammonium nitrites and mixtures of an inorganic nitrite with an ammonium salt are prohibited.	274	BP504		1	None	CG12, CR10, CR19, CR29
3219	NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S. / PG III	5.1	None	Ammonium nitrites and mixtures of an inorganic nitrite with an ammonium salt are prohibited.	274	BP504		5	None	CG12, CR10, CR19, CR29
	PENTAFLUOROETHANE (also known as REFRIGERANT GAS R 125)	2.2	None		None	BP200		0.12	None	
3221	SELF-REACTIVE LIQUID TYPE B	4.1	None		274	BP520	SP21	0.025	None	CR5, CR6

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cracifications	SN	Packing (A)	ppendix 5)		MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3222	SELF-REACTIVE SOLID TYPE B	4.1	None		274	BP520	SP21 SP101	0.1	None	CR5, CR6
3223	SELF-REACTIVE LIQUID TYPE C	4.1	None		274	BP520	SP21 SP94 SP95	0.025	None	CR5, CR6
3224	SELF-REACTIVE SOLID TYPE C	4.1	None		274	BP520	SP21 SP94 SP95	0.1	None	CR5, CR6
3225	SELF-REACTIVE LIQUID TYPE D	4.1	None		274	BP520		0.125	None	CR5, CR6
3226	SELF-REACTIVE SOLID TYPE D	4.1	None		274	BP520		0.5	None	CR5, CR6
3227	SELF-REACTIVE LIQUID TYPE E	4.1	None		274	BP520		0.125	None	CR5, CR6
3228	SELF-REACTIVE SOLID TYPE E	4.1	None		274	BP520		0.5	None	CR5, CR6
3229	SELF-REACTIVE LIQUID TYPE F	4.1	None		274	BP520		0.125	None	CR5, CR6
3230	SELF-REACTIVE SOLID TYPE F	4.1	None		274	BP520		0.5	None	CR5, CR6
3231	SELF-REACTIVE LIQUID TYPE B, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520	SP21	None	None	CR5, CR6

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3232	SELF-REACTIVE SOLID TYPE B, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520	SP21 SP101	None	None	CR5, CR6
3233	SELF-REACTIVE LIQUID TYPE C, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520	SP21	None	None	CR5, CR6
3234	SELF-REACTIVE SOLID TYPE C, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520	SP21	None	None	CR5, CR6
3235	SELF-REACTIVE LIQUID TYPE D, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520		None	None	CR5, CR6
3236	SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520		None	None	CR5, CR6
3237	SELF-REACTIVE LIQUID TYPE E, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520		None	None	CR5, CR6
3238	SELF-REACTIVE SOLID TYPE E, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520		None	None	CR5, CR6

<b>(1)</b>	(2)	<b>(3)</b>	<b>(4)</b>	(5)	<b>(6)</b>	(7	)	<b>(8)</b>	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •6• /•	SN	Packing (A)	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3239	SELF-REACTIVE LIQUID TYPE F, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520		None	None	CR5, CR6
3240	SELF-REACTIVE SOLID TYPE F, TEMPERATURE CONTROLLED	4.1	None		194 274	BP520		None	None	CR5, CR6
3241	2-BROMO-2-NITROPROPANE- 1,3-DIOL / PG III	4.1	None		None	BP520	SP22	5	None	
3242	AZODICARBONAMIDE / PG II	4.1	None	Homogeneous mixtures containing not more than 35% by mass of azocarbonamide and at least 65% of inert substance are not subject to the Dangerous Goods Ordinance (Cap. 295) unless meeting the criteria for inclusion in another Class.	215	BP409		1	None	CR3, CR5, CR6
3243	SOLIDS CONTAINING TOXIC LIQUID, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
3244	SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S. / PG II	8	None		274	BP002		1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (App	oendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3246	METHANESULPHONYL CHLORIDE / PG I	6.1	8		354	BP602		None	None	CG1, CR6, CR19
3247	SODIUM PEROXOBORATE, ANHYDROUS / PG II	5.1	None		None	BP002		1	None	
3250	CHLOROACETIC ACID, MOLTEN / PG II	6.1	8		None			None	None	CG1, CR6, CR19
3251	ISOSORBIDE-5-MONONITRATE / PG III	4.1	None	Formulations of this item containing not less than 30% non-volatile, non-flammable phlegmatizer are not subject to the Dangerous Goods Ordinance (Cap. 295).	None	BP409		5	None	
3252	DIFLUOROMETHANE (also known as REFRIGERANT GAS R 32)	2.1	None		None	BP200		None	None	CR7
3253	DISODIUM TRIOXOSILICATE / PG III	8	None		None	BP002		5	None	CG18, CR5
3254	TRIBUTYLPHOSPHANE / PG I	4.2	None		None	BP400		None	None	CR18
3259	AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. / PG I	8	None		274	BP002		None	None	CG18, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3259	AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. / PG II	8	None		274	BP002		1	None	CG18, CR5
3259	AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. / PG III	8	None		274	BP002		5	None	CG18, CR5
13260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. / PG I	8	None		274	BP002		None	None	CG1, CR6, CR19
13260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. / PG II	8	None		274	BP002		1	1	CG1, CR6, CR19
3260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. / PG III	8	None		274	BP002		5	1	CG1, CR6, CR19
3261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. / PG I	8	None		274	BP002		None	None	CG1, CR6, CR19
13261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. / PG II	8	None		274	BP002		1	1	CG1, CR6, CR19
13261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. / PG III	8	None		274	BP002		5	1	CG1, CR6, CR19
13262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. / PG I	8	None		274	BP002		None	None	CG18, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cu a sifi a a 4 i a u a	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. / PG II	8	None		274	BP002		1	1	CG18, CR5
3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. / PG III	8	None		274	BP002		5	1	CG18, CR5
3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. / PG I	8	None		274	BP002		None	None	CG18, CR5
3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. / PG II	8	None		274	BP002		1	1	CG18, CR5
3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. / PG III	8	None		274	BP002		5	1	CG18, CR5
3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. / PG I	8	None		274	BP001		None	None	CG1, CR6, CR19
3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. / PG II	8	None		274	BP001		1	1	CG1, CR6, CR19
3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. / PG III	8	None		274	BP001		5	1	CG1, CR6, CR19
3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. / PG I	8	None		274	BP001		None	None	CG1, CR6, CR19
3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. / PG II	8	None		274	BP001		1	1	CG1, CR6, CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crootfi aa 4 i ara	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3265	CORROSIVE LIQUID, ACIDIC,	8	None		274	BP001		5	1	CG1, CR6,
	ORGANIC, N.O.S. / PG III	Ů	1,011		<b>-</b>	21001				CR19
3266	CORROSIVE LIQUID, BASIC,	8	None		274	BP001		None	None	CG18, CR5
3200	INORGANIC, N.O.S. / PG I		1,0116		2, .	<b>D1</b> 001		1 (0110	Tione	
3266	CORROSIVE LIQUID, BASIC,	8	None		274	BP001		1	1	CG18, CR5
3200	INORGANIC, N.O.S. / PG II	Ü	110110		27.	<b>D</b> 1 001		1		
3266	CORROSIVE LIQUID, BASIC,	8	None		274	BP001		5	1	CG18, CR5
3200	INORGANIC, N.O.S. / PG III	O	Tione		271	<b>D1</b> 001		3	1	ed16, eR3
3267	CORROSIVE LIQUID, BASIC,	8	None		274	BP001		None	None	CG18, CR5
3207	ORGANIC, N.O.S. / PG I	O .	Tione		271	<b>D1</b> 001		Tione	TVOILE	2010, 213
3267	CORROSIVE LIQUID, BASIC,	8	None		274	BP001		1	1	CG18, CR5
3207	ORGANIC, N.O.S. / PG II	O	Tione		274	<b>D</b> 1 001		1	1	eg16, eR3
3267	CORROSIVE LIQUID, BASIC,	8	None		274	BP001		5	1	CG18, CR5
3207	ORGANIC, N.O.S. / PG III	0	TVOIC		274	DI 001		3	1	CO16, CR3
3260	POLYESTER RESIN KIT / PG II	3	None	This item is pre-packed.	236	BP302		5	1	
3209	FOLTESTER RESIN KIT / FO II	J	None	Liquid base material.	230	DF 302		3	1	
2260	POLYESTER RESIN KIT / PG III	3	None	This item is pre-packed.	236	BP302		5	1	
3209	POLIESIER RESIN KII / PO III	י	None	Liquid base material.	230	DP302		3	1	
	NUTDOCELL LU OCE			With not more than 12.6%						
3270	NITROCELLULOSE MEMBRANE FILTERS / PG II	4.1	None	nitrogen, by dry mass.	None	BP411		1	None	
	IMEMBRANE FILTERS / PG II			Nitrocellulose membrane filters						

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				covered by this item, each with a						
				mass not exceeding 0.5 g, are						
				not subject to the Dangerous						
				Goods Ordinance (Cap. 295)						
				when contained individually in						
				an article or a sealed packet.						
3271	ETHERS, N.O.S. / PG II	3	None		274	BP001		1	None	
3271	ETHERS, N.O.S. / PG III	3	None		274	BP001		5	None	
3272	ESTERS, N.O.S. / PG II	3	None		274	BP001		1	None	
3272	ESTERS, N.O.S. / PG III	3	None		274	BP001		5	None	
3273	NITRILES, FLAMMABLE,	3	6.1		274	BP001		None	None	CR5
3213	TOXIC, N.O.S. / PG I	3	0.1		274	BP001		None	None	CRS
3273	NITRILES, FLAMMABLE,	3	6.1		274	BP001		1	None	CR5
3213	TOXIC, N.O.S. / PG II	3	0.1		274	Druui		1	None	CKS
3274	ALCOHOLATES SOLUTION,	3	8	In alcohol	274	BP001		1	None	CG18, CR5
3274	N.O.S. / PG II	3	0	III alcollol	274	DF001		1	None	CG16, CR3
3275	NITRILES, TOXIC,	6.1	3		274	BP001		None	None	CR5
3213	FLAMMABLE, N.O.S. / PG I	0.1	<u> </u>		315	DFUUI		None	TNOHE	CKJ
3275	NITRILES, TOXIC,	6.1	3		274	BP001		0.1	None	CR5
3213	FLAMMABLE, N.O.S. / PG II	0.1	3		214	DFUUI		0.1	TNOHE	CKJ

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Appe	endix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3276	NITRILES, LIQUID, TOXIC, N.O.S. / PG I	6.1	None		274 315	BP001		None	None	CR5
3276	NITRILES, LIQUID, TOXIC, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	CR5
3276	NITRILES, LIQUID, TOXIC, N.O.S. / PG III	6.1	None		274	BP001		5	None	CR5
3277	CHLOROFORMATES, TOXIC, CORROSIVE, N.O.S. / PG II	6.1	8		274	BP001		0.1	None	CG1, CR6, CR19
3278	ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S. / PG I	6.1	None		274 315	BP001		None	None	
3278	ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	
3278	ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S. / PG III	6.1	None		274	BP001		5	None	
3279	ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S. / PG I	6.1	3		274 315	BP001		None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	ORGANOPHOSPHORUS									
3279	COMPOUND, TOXIC,	6.1	3		274	BP001		0.1	None	
	FLAMMABLE, N.O.S. / PG II									
	ORGANOARSENIC				274					
3280	COMPOUND, LIQUID, N.O.S. /	6.1	None		315	BP001		None	None	
	PG I				313					
	ORGANOARSENIC									
3280	COMPOUND, LIQUID, N.O.S. /	6.1	None		274	BP001		0.1	None	
	PG II									
	ORGANOARSENIC									
3280	COMPOUND, LIQUID, N.O.S. /	6.1	None		274	BP001		5	None	
	PG III									
3281	METAL CARBONYLS, LIQUID,	6.1	None		274	BP601		None	None	
	N.O.S. / PG I		1,0110		315	21001		1,0110	1,0110	
3281	METAL CARBONYLS, LIQUID,	6.1	None		274	BP001		0.1	None	
3201	N.O.S. / PG II	0.1	rvone		27.	21001		0.1	Tione	
13281	METAL CARBONYLS, LIQUID,	6.1	None		274	BP001		5	None	
3201	N.O.S. / PG III	0.1	TVOILE		271	BI 001		3	Tione	
	ORGANOMETALLIC									
	COMPOUND, LIQUID, TOXIC,	6.1	None		274	BP001		None	None	
	N.O.S. / PG I									

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3282	ORGANOMETALLIC COMPOUND, LIQUID, TOXIC, N.O.S. / PG II	6.1	None		274	BP001		0.1	None	
	ORGANOMETALLIC COMPOUND, LIQUID, TOXIC, N.O.S. / PG III	6.1	None		274	BP001		5	None	
3283	SELENIUM COMPOUND, SOLID, N.O.S. / PG I	6.1	None		274	BP002		None	None	
13283	SELENIUM COMPOUND, SOLID, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
3283	SELENIUM COMPOUND, SOLID, N.O.S. / PG III	6.1	None		274	BP002		5	None	
3284	TELLURIUM COMPOUND, N.O.S. / PG I	6.1	None		274	BP002		None	None	
3284	TELLURIUM COMPOUND, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
3284	TELLURIUM COMPOUND, N.O.S. / PG III	6.1	None		274	BP002		5	None	
3285	VANADIUM COMPOUND, N.O.S. / PG I	6.1	None		274	BP002		None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cuarifications	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	<b>Specifications</b>	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3285	VANADIUM COMPOUND, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
3285	VANADIUM COMPOUND, N.O.S. / PG III	6.1	None		274	BP002		5	None	
13286	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. / PG I	3	6.1, 8		274	BP001		None	None	
13286	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. / PG II	3	6.1, 8		274	BP001		1	None	
3287	TOXIC LIQUID, INORGANIC, N.O.S. / PG I	6.1	None		274 315	BP001		None	None	
3287	TOXIC LIQUID, INORGANIC, N.O.S. / PG II	6.1	None		274	BP001		0.1	0.1	
3287	TOXIC LIQUID, INORGANIC, N.O.S. / PG III	6.1	None		274	BP001		5	1	
3288	TOXIC SOLID, INORGANIC, N.O.S. / PG I	6.1	None		274	BP002		None	None	
3288	TOXIC SOLID, INORGANIC, N.O.S. / PG II	6.1	None		274	BP002		0.5	0.5	
3288	TOXIC SOLID, INORGANIC, N.O.S. / PG III	6.1	None		274	BP002		5	1	

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crostfi as 4 i area	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3289	TOXIC LIQUID, CORROSIVE,	6.1	8		274	BP001		None	None	
3269	INORGANIC, N.O.S. / PG I	0.1	0		315	DF001		None	None	
3289	TOXIC LIQUID, CORROSIVE,	6.1	8		274	BP001		0.1	None	
3207	INORGANIC, N.O.S. / PG II	0.1	O		214	<b>D</b> 1 001		0.1	Ttone	
3290	TOXIC SOLID, CORROSIVE,	6.1	8		274	BP002		None	None	
3270	INORGANIC, N.O.S. / PG I	0.1	Ü		271	B1 002			Tione	
3290	TOXIC SOLID, CORROSIVE,	6.1	8		274	BP002		0.5	None	
02>0	INORGANIC, N.O.S. / PG II	0.12	Ŭ		_,.	21 00 <b>2</b>				
3293	HYDRAZINE, AQUEOUS	6.1	None	With not more than 37%	None	BP001		5	None	CG18, CR5
	SOLUTION / PG III			hydrazine, by mass						
				With not more than 45%						
	HYDROGEN CYANIDE,			hydrogen cyanide.						
3294	SOLUTION IN ALCOHOL / PG I	6.1	3	Hydrogen cyanide, solution in	None	BP601		None	None	
				alcohol with more than 45%						
	INVERGGARDONG LIGHT			hydrogen cyanide is prohibited.						
3295	HYDROCARBONS, LIQUID, N.O.S. / PG I	3	None		None	BP001		0.5	None	
3295	HYDROCARBONS, LIQUID, N.O.S. / PG II	3	None		None	BP001		1	1	
	HYDROCARBONS, LIQUID,									
3295	N.O.S. / PG III	3	None		None	BP001		5	1	
	11.0.0./1011									

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	HEPTAFLUOROPROPANE (also known as REFRIGERANT GAS R 227)	2.2	None		None	BP200		0.12	None	
3297	ETHYLENE OXIDE AND CHLOROTETRAFLUOROETHA NE MIXTURE	2.2	None	With not more than 8.8% ethylene oxide	None	BP200		0.12	None	
3298	ETHYLENE OXIDE AND PENTAFLUOROETHANE MIXTURE	2.2	None	With not more than 7.9% ethylene oxide	None	BP200		0.12	None	
3299	ETHYLENE OXIDE AND TETRAFLUOROETHANE MIXTURE	2.2	None	With not more than 5.6% ethylene oxide	None	BP200		0.12	None	
3300	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE	2.3	2.1	With more than 87% ethylene oxide	None	BP200		None	None	CR7
3301	CORROSIVE LIQUID, SELF- HEATING, N.O.S. / PG I	8	4.2		274	BP001		None	None	
13301	CORROSIVE LIQUID, SELF- HEATING, N.O.S. / PG II	8	4.2		274	BP001		None	None	
3302	2-DIMETHYLAMINOETHYL ACRYLATE, STABILIZED / PG II	6.1	None		None	BP001		0.1	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Cl	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3303	COMPRESSED GAS, TOXIC, OXIDIZING, N.O.S.	2.3	5.1		274	BP200		None	None	CG19, CR7
13304	COMPRESSED GAS, TOXIC, CORROSIVE, N.O.S.	2.3	8		274	BP200		None	None	CR7
3305	COMPRESSED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.	2.3	2.1, 8		274	BP200		None	None	CR7
3306	COMPRESSED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.	2.3	5.1, 8		274	BP200		None	None	CG19, CR7
13307	LIQUEFIED GAS, TOXIC, OXIDIZING, N.O.S.	2.3	5.1		274	BP200		None	None	CG19, CR7
13308	LIQUEFIED GAS, TOXIC, CORROSIVE, N.O.S.	2.3	8		274	BP200		None	None	CR7
3309	LIQUEFIED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.	2.3	2.1, 8		274	BP200		None	None	CR7
3310	LIQUEFIED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.	2.3	5.1, 8		274	BP200		None	None	CG19, CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3311	GAS, REFRIGERATED LIQUID, OXIDIZING, N.O.S.	2.2	5.1		274	BP203		None	None	CG19
13312	GAS, REFRIGERATED LIQUID, FLAMMABLE, N.O.S.	2.1	None		274	BP203		None	None	CR7
13313	ORGANIC PIGMENTS, SELF- HEATING / PG II	4.2	None		None	BP002		None	None	
13313	ORGANIC PIGMENTS, SELF- HEATING / PG III	4.2	None		None	BP002		None	None	
3315	CHEMICAL SAMPLE, TOXIC / PG I	6.1	None		None	BP099		None	None	
3317	2-AMINO-4,6-DINITROPHENOL, WETTED / PG I	4.1	None	With not less than 20% water, by mass	None	BP406	SP26 SP31	None	None	
3318	AMMONIA SOLUTION	2.3	8	Relative density less than 0.880 at 15°C in water, with more than 50% ammonia	None	BP200		None	None	CG18, CR5, CR16, CR7
3319	NITROGLYCERIN MIXTURE, DESENSITIZED, SOLID, N.O.S. / PG II	4.1	None	With more than 2% but not more than 10% nitroglycerin, by mass	274	BP099		None	None	
3320	SODIUM BOROHYDRIDE AND SODIUM HYDROXIDE SOLUTION / PG II	8	None	With not more than 12% sodium borohydride and not more than 40% sodium hydroxide, by mass	None	BP001		1	None	CG18, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •p• /•	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	SODIUM BOROHYDRIDE AND			With not more than 12% sodium						
3320	SODIUM HYDROXIDE	8	None	borohydride and not more than	None	BP001		5	None	CG18, CR5
	SOLUTION / PG III			40% sodium hydroxide, by mass						
	MERCAPTANS, LIQUID,									
	FLAMMABLE, N.O.S. or									
3336	MERCAPTAN MIXTURE,	3	None		274	BP001		None	None	
	LIQUID, FLAMMABLE, N.O.S. /									
	PG I									
	MERCAPTANS, LIQUID,									
	FLAMMABLE, N.O.S. or									
3336	MERCAPTAN MIXTURE,	3	None		274	BP001		1	None	
	LIQUID, FLAMMABLE, N.O.S. /									
	PG II									
	MERCAPTANS, LIQUID,									
	FLAMMABLE, N.O.S. or									
3336	MERCAPTAN MIXTURE,	3	None		274	BP001		5	None	
	LIQUID, FLAMMABLE, N.O.S. /									
	PG III									
3337	REFRIGERANT GAS R 404A	2.2	None		None	BP200		0.12	None	
3338	REFRIGERANT GAS R 407A	2.2	None		None	BP200		0.12	None	
3339	REFRIGERANT GAS R 407B	2.2	None		None	BP200		0.12	None	
3340	REFRIGERANT GAS R 407C	2.2	None		None	BP200		0.12	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	ppendix 5)	10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3341	THIOUREA DIOXIDE / PG II	4.2	None		None	BP002	SP31	None	None	
3341	THIOUREA DIOXIDE / PG III	4.2	None		None	BP002	SP31	None	None	
3342	XANTHATES / PG II	4.2	None		None	BP002	SP31	None	None	
3342	XANTHATES / PG III	4.2	None		None	BP002	SP31	None	None	
3343	NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, FLAMMABLE, N.O.S.	3	None	With not more than 30% nitroglycerin, by mass	274	BP099		None	None	
3344	PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) MIXTURE, DESENSITIZED, SOLID, N.O.S. / PG II	4.1	None	With more than 10% but not more than 20% PETN, by mass	274	BP406	SP26	None	None	
	NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, N.O.S. / PG II	3	None	With not more than 30% nitroglycerin, by mass	274	BP099		None	None	
3361	CHLOROSILANES, TOXIC, CORROSIVE, N.O.S. / PG II	6.1	8		274	BP010		None	None	CG1, CR6, CR19
3362	CHLOROSILANES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S. / PG II	6.1	3, 8		274	BP010		None	None	CG1, CR6, CR19, CR30

(1)	(2)	(3)	(4)	(5)	(6)	(7	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crosifications	SN	Packing (A)	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3364	TRINITROPHENOL, WETTED (also known as PICRIC ACID, WETTED) / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP24 SP31	None	None	
3365	TRINITROCHLOROBENZENE, WETTED (also known as PICRYL CHLORIDE, WETTED) / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP24 SP31	None	None	
3366	TRINITROTOLUENE, WETTED (also known as TNT, WETTED) / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP24 SP31	None	None	
3367	TRINITROBENZENE, WETTED / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP24 SP31	None	None	
3368	TRINITROBENZOIC ACID, WETTED / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP24 SP31	None	None	
3369	SODIUM DINITRO-o- CRESOLATE, WETTED / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP24 SP31	None	None	
3370	UREA NITRATE, WETTED / PG I	4.1	None	With not less than 10% water, by mass	None	BP406	SP31 SP78	None	None	
3371	2-METHYLBUTANAL / PG II	3	None		None	BP001		1	None	
3374	ACETYLENE, SOLVENT FREE	2.1	None		None	BP200		None	None	CR16, CR7

**(1) (2) (3) (4) (5) (7) (9) (10) (6) (8)** Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN **Compatibility Specifications** LQ Class **MPS** Packing Group (if any) Hazard (Appendix 4) BP 2.3.3 No. SP CG2, CR4, CR8, AMMONIUM NITRATE CR13, CR15, Intermediate for blasting 3375 EMULSION or SUSPENSION or BP505 CR17, CR20, 5.1 None None None None explosives GEL / PG II CR25, CR26, **CR27** 4-NITROPHENYLHYDRAZINE / With not less than 30% water, SP26 3376 4.1 None None BP406 None None PG I SP31 by mass SODIUM PERBORATE 3377 5.1 None BP002 5 CG16, CR27 None None MONOHYDRATE / PG III SODIUM CARBONATE 3378 CG16, CR27 5.1 BP002 None None 1 None PEROXYHYDRATE / PG II SODIUM CARBONATE 3378 5 CG16, CR27 5.1 None None BP002 None PEROXYHYDRATE / PG III DESENSITIZED EXPLOSIVE, 3379 3 None 274 BP099 None None LIQUID, N.O.S. / PG I DESENSITIZED EXPLOSIVE, 3380 4.1 None 274 BP099 None None SOLID, N.O.S. / PG I With an inhalation toxicity lower than or equal to 200 ml/m<sup>3</sup> TOXIC BY INHALATION 3381 and saturated vapour 6.1 None 274 BP601 None None LIQUID, N.O.S. / PG I concentration greater than or equal to 500 LC<sub>50</sub>

UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (A <sub>l</sub>	ppendix 5)		MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3382	TOXIC BY INHALATION LIQUID, N.O.S. / PG I	6.1		With an inhalation toxicity lower than or equal to 1 000 ml/m <sup>3</sup> and saturated vapour concentration greater than or equal to 10 LC <sub>50</sub>	274	BP602		None	None	
	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. / PG I	6.1		With an inhalation toxicity lower than or equal to 200 ml/m <sup>3</sup> and saturated vapour concentration greater than or equal to 500 LC <sub>50</sub>	274	BP601		None	None	
	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. / PG I	6.1		With an inhalation toxicity lower than or equal to 1 000 ml/m <sup>3</sup> and saturated vapour concentration greater than or equal to 10 LC <sub>50</sub>	274	BP602		None	None	

With an inhalation toxicity

and saturated vapour

equal to 500 LC<sub>50</sub>

lower than or equal to 200 ml/m<sup>3</sup>

concentration greater than or

**(5)** 

**(6)** 

274

BP601

**(7)** 

**(8)** 

None

None

**(9)** 

**(10)** 

**(1)** 

**(2)** 

TOXIC BY INHALATION

3385 LIQUID, WATER- REACTIVE,

N.O.S. / PG I

**(3)** 

6.1

4.3

**(4)** 

(1)	(2)	(3)	<b>(4)</b>	(5)	<b>(6)</b>	<b>(7</b> )	(8)	<b>(9</b> )	(10)
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UN	Proper Shipping Name /	CI.	Subsidiary	G •0• /•	SN	Packing (A <sub>l</sub>	ppendix 5)		MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				With an inhalation toxicity						
	TOXIC BY INHALATION			lower than or equal to 1 000						
3386	LIQUID, WATER-REACTIVE,	6.1	4.3	ml/m³ and saturated vapour	274	BP602		None	None	
	N.O.S. / PG I			concentration greater than or						
				equal to 10 LC <sub>50</sub>						
				With an inhalation toxicity						
	TOXIC BY INHALATION			lower than or equal to 200 ml/m <sup>3</sup>						
3387	LIQUID, OXIDIZING, N.O.S. / PG	6.1	5.1	and saturated vapour	274	BP601		None	None	
	I			concentration greater than or						
				equal to 500 LC <sub>50</sub>						
				With an inhalation toxicity						
	TOXIC BY INHALATION			lower than or equal to 1 000						
3388	LIQUID, OXIDIZING, N.O.S. / PG	6.1	5.1	ml/m³ and saturated vapour	274	BP602		None	None	
	I			concentration greater than or						
				equal to 10 LC <sub>50</sub>						
				With an inhalation toxicity						
	TOXIC BY INHALATION			lower than or equal to 200 ml/m <sup>3</sup>						
3389	LIQUID, CORROSIVE, N.O.S. /	6.1	8	and saturated vapour	274	BP601		None	None	
	PG I			concentration greater than or						
				equal to 500 LC <sub>50</sub>						

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

UN	Proper Shipping Name /	CI.	Subsidiary	CI •0• /•	SN	Packing (A <sub>l</sub>	ppendix 5)	Ι.Ο.	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. / PG I	6.1		With an inhalation toxicity lower than or equal to 1 000 ml/m³ and saturated vapour concentration greater than or equal to 10 LC <sub>50</sub>	274	BP602		None	None	
	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC / PG I	4.2	None		274	BP404	SP86	None	None	
	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC / PG I	4.2	None		274	BP400	SP86	None	None	
3393	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER- REACTIVE / PG I	4.2	4.3		274	BP404	SP86	None	None	CR5
3394	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER- REACTIVE / PG I	4.2	4.3		274	BP400	SP86	None	None	CR5
3395	ORGANOMETALLIC SUBSTANCE, SOLID, WATER- REACTIVE / PG I	4.3	None		274	BP403	SP31	None	None	CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A)	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	ORGANOMETALLIC SUBSTANCE, SOLID, WATER- REACTIVE / PG II	4.3	None		274	BP410	SP31	0.5	None	CR5
3395	ORGANOMETALLIC SUBSTANCE, SOLID, WATER- REACTIVE / PG III	4.3	None		274	BP410	SP31	1	None	CR5
3396	ORGANOMETALLIC SUBSTANCE, SOLID, WATER- REACTIVE, FLAMMABLE / PG I	4.3	4.1		274	BP403	SP31	None	None	CR5
13396	ORGANOMETALLIC SUBSTANCE, SOLID, WATER- REACTIVE, FLAMMABLE / PG II	4.3	4.1		274	BP410	SP31	0.5	None	CR5
3396	ORGANOMETALLIC SUBSTANCE, SOLID, WATER- REACTIVE, FLAMMABLE / PG III	4.3	4.1		274	BP410	SP31	1	None	CR5
3397	ORGANOMETALLIC SUBSTANCE, SOLID, WATER- REACTIVE, SELF-HEATING / PG I	4.3	4.2		274	BP403	SP31	None	None	CR5

**(1) (2) (3) (4) (5) (6) (7) (9)** (10)**(8)** Packing (Appendix 5) UN **Proper Shipping Name / Subsidiary** SN **Compatibility Specifications MPS** LQ Class No. Packing Group (if any) Hazard (Appendix 4) BP 2.3.3 SP ORGANOMETALLIC SUBSTANCE, SOLID, WATER-4.3 3397 4.2 274 BP410 SP31 0.5 None CR5 REACTIVE, SELF-HEATING / PG II ORGANOMETALLIC SUBSTANCE, SOLID, WATER-3397 4.3 4.2 274 BP410 SP31 1 None CR5 REACTIVE, SELF-HEATING / PG III ORGANOMETALLIC 3398 SUBSTANCE, LIQUID, WATER-CR5 4.3 274 BP402 SP31 None None None REACTIVE / PG I ORGANOMETALLIC 3398 SUBSTANCE, LIQUID, WATER-274 BP001 SP31 CR5 4.3 None 0.5 None REACTIVE / PG II ORGANOMETALLIC 3398 SUBSTANCE, LIQUID, WATER-4.3 None 274 BP001 SP31 1 None CR5 REACTIVE / PG III ORGANOMETALLIC 3399 SUBSTANCE, LIQUID, WATER-4.3 274 SP31 CR5 3 BP402 None None REACTIVE, FLAMMABLE / PG I ORGANOMETALLIC 3399 4.3 BP001 SP31 CR5 3 274 0.5 None

SUBSTANCE, LIQUID, WATER-

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (A <sub>1</sub>	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	REACTIVE, FLAMMABLE / PG									
	П									
	ORGANOMETALLIC									
3399	SUBSTANCE, LIQUID, WATER-	4.3	3		274	BP001	SP31	1	None	CR5
3377	REACTIVE, FLAMMABLE / PG	4.3	3		274	Droot	3131	1	None	CKS
	Ш									
	ORGANOMETALLIC									
3400	SUBSTANCE, SOLID, SELF-	4.2	None		274	BP410		0.5	None	
	HEATING / PG II									
	ORGANOMETALLIC									
3400	SUBSTANCE, SOLID, SELF-	4.2	None		274	BP002		1	None	
	HEATING / PG III									
				The group of alkali metals						
3401	ALKALI METAL AMALGAM,	4.3	None	includes lithium, sodium,	None	BP403	SP31	None	None	CG7, CG11,
3401	SOLID / PG I	4.3	None	potassium, rubidium and	None	DF403	3131	None	None	CR5
				caesium.						
	ALKALINE EARTH METAL			The group of alkaline earth						CG7, CG11,
3402	AMALGAM, SOLID / PG I	4.3	None	metals includes magnesium,	None	BP403	SP31	None	None	CG7, CG11,
	AWALOAW, SOLID / TO I			calcium, strontium and barium.						CKJ
3403	POTASSIUM METAL ALLOYS,	4.3	None		None	BP403	SP31	None	None	CR5
3403	SOLID / PG I	4.3	TAOHE		TAOHE	DI 403	31 31	TNUILE	TNOHE	CNJ

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifications	SN	Packing (Ap	pendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3404	POTASSIUM SODIUM ALLOYS, SOLID / PG I	4.3	None		None	BP403	SP31	None	None	CR5
3405	BARIUM CHLORATE SOLUTION / PG II	5.1	6.1		None	BP504		1	None	CG4, CR10, CR19, CR29
3405	BARIUM CHLORATE SOLUTION / PG III	5.1	6.1		None	BP001		5	None	CG4, CR10, CR19, CR29
3406	BARIUM PERCHLORATE SOLUTION / PG II	5.1	6.1		None	BP504		1	None	CG13, CR10, CR19, CR29
3406	BARIUM PERCHLORATE SOLUTION / PG III	5.1	6.1		None	BP001		5	None	CG13, CR10, CR19, CR29
3407	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE SOLUTION / PG II	5.1	None		None	BP504		1	None	CG4, CR10, CR19, CR29
3407	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE SOLUTION / PG III	5.1	None		None	BP504		5	None	CG4, CR10, CR19, CR29
3408	LEAD PERCHLORATE SOLUTION / PG II	5.1	6.1		None	BP504		1	None	CG7, CG9, CG13, CR10, CR19

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3408	LEAD PERCHLORATE SOLUTION / PG III	5.1	6.1		None	BP001		5	None	CG7, CG9, CG13, CR10, CR19
3409	CHLORONITROBENZENES, LIQUID / PG II	6.1	None		279	BP001		0.1	None	
3410	4-CHLORO-o-TOLUIDINE HYDROCHLORIDE SOLUTION / PG III	6.1	None		None	BP001		5	None	
3411	beta-NAPHTHYLAMINE SOLUTION / PG II	6.1	None		None	BP001		0.1	None	
3411	beta-NAPHTHYLAMINE SOLUTION / PG III	6.1	None		None	BP001		5	None	
3412	FORMIC ACID / PG II	8	None	With not less than 10% but not more than 85% acid, by mass	None	BP001		1	None	CG1, CR6, CR19
3412	FORMIC ACID / PG III	8	None	With not less than 5% but less than 10% acid, by mass	None	BP001		5	None	CG1, CR6, CR19
3413	POTASSIUM CYANIDE SOLUTION / PG I	6.1	None		None	BP001	SP31	None	None	CG6, CR5
3413	POTASSIUM CYANIDE SOLUTION / PG II	6.1	None		None	BP001	SP31	0.1	None	CG6, CR5

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Specifications	SN	Packing (Ap	ppendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3413	POTASSIUM CYANIDE SOLUTION / PG III	6.1	None		None	BP001	SP31	5	None	CG6, CR5
3414	SODIUM CYANIDE SOLUTION / PG I	6.1	None		None	BP001	SP31	None	None	CG6, CR5
3414	SODIUM CYANIDE SOLUTION / PG II	6.1	None		None	BP001	SP31	0.1	None	CG6, CR5
3414	SODIUM CYANIDE SOLUTION / PG III	6.1	None		None	BP001	SP31	5	None	CG6, CR5
3415	SODIUM FLUORIDE SOLUTION / PG III	6.1	None		None	BP001		5	None	CR5
3416	CHLOROACETOPHENONE, LIQUID / PG II	6.1	None		None	BP001		None	None	
3417	XYLYL BROMIDE, SOLID / PG II	6.1	None		None	BP002		None	None	
3418	2,4-TOLUYLENEDIAMINE SOLUTION / PG III	6.1	None		None	BP001		5	None	
3419	BORON TRIFLUORIDE ACETIC ACID COMPLEX, SOLID / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
	BORON TRIFLUORIDE PROPIONIC ACID COMPLEX, SOLID / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Cu asifi aadi ana	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MIPS	2.3.3
3421	POTASSIUM HYDROGEN DIFLUORIDE SOLUTION / PG II	8	6.1		None	BP001		1	None	CG1, CR5, CR6, CR19
3421	POTASSIUM HYDROGEN DIFLUORIDE SOLUTION / PG III	8	6.1		None	BP001		5	None	CG1, CR5, CR6, CR19
3422	POTASSIUM FLUORIDE SOLUTION / PG III	6.1	None		None	BP001		5	None	CR5
3423	TETRAMETHYLAMMONIUM HYDROXIDE, SOLID / PG II	8	None		None	BP002		1	None	CG2, CG18, CR5
3424	AMMONIUM DINITRO-o- CRESOLATE, SOLUTION / PG II	6.1	None		None	BP001		0.1	None	CG2, CR4
	AMMONIUM DINITRO-o- CRESOLATE, SOLUTION / PG III	6.1	None		None	BP001		5	None	CG2, CR4
13425	BROMOACETIC ACID, SOLID / PG II	8	None		None	BP002		1	None	CG1, CR6, CR19
3426	ACRYLAMIDE SOLUTION / PG III	6.1	None		None	BP001		5	None	
3427	CHLOROBENZYL CHLORIDES, SOLID / PG III	6.1	None		None	BP002		5	None	
3428	3-CHLORO-4-METHYLPHENYL ISOCYANATE, SOLID / PG II	6.1	None		None	BP002		0.5	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •p• /•	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3429	CHLOROTOLUIDINES, LIQUID / PG III	6.1	None		None	BP001		5	None	
3430	XYLENOLS, LIQUID / PG II	6.1	None		None	BP001		0.1	None	
3431	NITROBENZOTRIFLUORIDES, SOLID / PG II	6.1	None		None	BP002		0.5	None	
3434	NITROCRESOLS, LIQUID / PG III	6.1	None		None	BP001		5	None	
3436	HEXAFLUOROACETONE HYDRATE, SOLID / PG II	6.1	None		None	BP002		0.5	None	
3437	CHLOROCRESOLS, SOLID / PG II	6.1	None		None	BP002		0.5	None	
3438	alpha-METHYLBENZYL ALCOHOL, SOLID / PG III	6.1	None		None	BP002		5	None	
3439	NITRILES, SOLID, TOXIC, N.O.S. / PG I	6.1	None		274	BP002		None	None	CR5
3439	NITRILES, SOLID, TOXIC, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	CR5
13439	NITRILES, SOLID, TOXIC, N.O.S. / PG III	6.1	None		274	BP002		5	None	CR5
3440	SELENIUM COMPOUND, LIQUID, N.O.S. / PG I	6.1	None		274	BP001		None	None	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Charifiastiana	SN	Packing (Ap	pendix 5)	10	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3440	SELENIUM COMPOUND,	6.1	None		274	BP001		0.1	None	
3440	LIQUID, N.O.S. / PG II	0.1	None		274	DF001		0.1	None	
3440	SELENIUM COMPOUND,	6.1	None		274	BP001		5	None	
3110	LIQUID, N.O.S. / PG III	0.1	Tione		217	<b>D1</b> 001		3	Ttone	
3441	CHLORODINITROBENZENES,	6.1	None		279	BP002		0.5	None	
	SOLID / PG II	0.12	1,011			21002				
3442	DICHLOROANILINES, SOLID /	6.1	None		279	BP002		0.5	None	
	PG II									
3443	DINITROBENZENES, SOLID /	6.1	None		None	BP002		0.5	None	
	PG II									
3444	NICOTINE HYDROCHLORIDE,	6.1	None		None	BP002		0.5	None	
	SOLID / PG II									
3445	NICOTINE SULPHATE, SOLID /	6.1	None		None	BP002		0.5	None	
	PG II									
3446	NITROTOLUENES, SOLID / PG	6.1	None		None	BP002		0.5	None	
-	II									
3447	NITROXYLENES, SOLID / PG II	6.1	None		None	BP002		0.5	None	
				p-Bromobenzyl cyanide is not						
3449	BROMOBENZYL CYANIDES,	6.1	None	subject to the Dangerous Goods	None	BP002	SP31	None	None	CG6, CR5
	SOLID / PG I	0.1	1,0110	Ordinance (Cap. 295).	1,0110	D1 002	5151	1,0110	110110	230, 213
				This item is not subject to the						

(1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	CI	Subsidiary	G •6• 4•	SN	Packing (Ap	ppendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				Dangerous Goods Ordinance (Cap. 295) if it falls within the meaning of <i>ammunition</i> under section 2(1) of the Firearms and Ammunition Ordinance (Cap. 238).						
3450	DIPHENYLCHLOROARSINE, SOLID / PG I	6.1	None		None	BP002	SP31	None	None	
3451	TOLUIDINES, SOLID / PG II	6.1	None		279	BP002		0.5	None	
3452	XYLIDINES, SOLID / PG II	6.1	None		None	BP002		0.5	None	
3453	PHOSPHORIC ACID, SOLID / PG III	8	None		None	BP002		5	1	CG1, CR6, CR19
3454	DINITROTOLUENES, SOLID / PG II	6.1	None		None	BP002		0.5	None	
3455	CRESOLS, SOLID / PG II	6.1	8		None	BP002		0.5	None	
3456	NITROSYLSULPHURIC ACID, SOLID / PG II	8	None		None	BP002		1	None	CG1, CR3, CR4, CR6, CR19, CR31
13457	CHLORONITROTOLUENES, SOLID / PG III	6.1	None		None	BP002		5	None	CR31

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	Crostfi anti ang	SN	Packing (Ap	pendix 5)		MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3458	NITROANISOLES, SOLID / PG III	6.1	None		279	BP002		5	None	
3459	NITROBROMOBENZENES, SOLID / PG III	6.1	None		None	BP002		5	None	
3460	N-ETHYLBENZYLTOLUIDINES, SOLID / PG III	6.1	None		None	BP002		5	None	
3462	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. / PG I	6.1	None	Toxins from plant, animal or bacterial sources which contain infectious substances, or toxins that are contained in infectious substances, are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		None	None	
3462	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID,	6.1	None	Toxins from plant, animal or bacterial sources which contain infectious substances, or toxins that are contained in infectious	274	BP002		0.5	None	

substances, are not subject to the Dangerous Goods Ordinance

(Cap. 295).

N.O.S. / PG II

<b>(1)</b>	<b>(2)</b>	(3)	<b>(4)</b>	(5)	<b>(6)</b>	<b>(7</b> )	(8)	<b>(9</b> )	(10)
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UN	Proper Shipping Name /	CI.	Subsidiary	G •60 (•	SN	Packing (A <sub>]</sub>	ppendix 5)		MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. / PG III	6.1	None	Toxins from plant, animal or bacterial sources which contain infectious substances, or toxins that are contained in infectious substances, are not subject to the Dangerous Goods Ordinance (Cap. 295).	274	BP002		5	None	
3463	PROPIONIC ACID / PG II	8	3	With not less than 90% acid, by mass	None	BP001		1	None	CG1, CR6, CR19
3464	ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S. / PG I	6.1	None		274	BP002		None	None	
3464	ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S. / PG II	6.1	None		274	BP002		0.5	None	
	ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S. / PG III	6.1	None		274	BP002		5	None	
	ORGANOARSENIC COMPOUND, SOLID, N.O.S. / PG I	6.1	None		274	BP002		None	None	

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	)	(8)	<b>(9</b> )	(10)
UN	Proper Shipping Name /	CI	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	ORGANOARSENIC									
3465	COMPOUND, SOLID, N.O.S. / PG	6.1	None		274	BP002		0.5	None	
	II									
	ORGANOARSENIC									
3465	COMPOUND, SOLID, N.O.S. / PG	6.1	None		274	BP002		5	None	
	III									
3466	METAL CARBONYLS, SOLID,	6.1	None		274	BP002		None	None	
3 100	N.O.S. / PG I	0.1	Trone		271	D1 002		Ttone	Tione	
3466	METAL CARBONYLS, SOLID,	6.1	None		274	BP002		0.5	None	
2.00	N.O.S. / PG II	0.1	110110		2, .	B1 002		0.0	Tyone	
3466	METAL CARBONYLS, SOLID,	6.1	None		274	BP002		5	None	
	N.O.S. / PG III	0.1	1,0110		_, .	21002				
	ORGANOMETALLIC									
3467	COMPOUND, SOLID, TOXIC,	6.1	None		274	BP002		None	None	
	N.O.S. / PG I									
	ORGANOMETALLIC									
3467	COMPOUND, SOLID, TOXIC,	6.1	None		274	BP002		0.5	None	
	N.O.S. / PG II									
	ORGANOMETALLIC									
3467	COMPOUND, SOLID, TOXIC,	6.1	None		274	BP002		5	None	
	N.O.S. / PG III									

UN	Proper Shipping Name /	CI.	Subsidiary	G •0• (•	SN	Packing (A <sub>1</sub>	ppendix 5)		MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE / PG I	3	8	Including paint thinning or reducing compound	163	BP001		None	None	
	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE / PG II	3	8	Including paint thinning or reducing compound	163	BP001		1	None	
3469	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE / PG III	3	8	Including paint thinning or reducing compound	163	BP001		5	None	
	PAINT RELATED MATERIAL, CORROSIVE, FLAMMABLE / PG II	8	3	Including paint thinning or reducing compound	163	BP001		1	None	
3471	HYDROGENDIFLUORIDES SOLUTION, N.O.S. / PG II	8	6.1		None	BP001		1	None	CR5

**(5)** 

**(6)** 

**(7)** 

BP001

BP001

BP406

None

None

None

**(8)** 

5

5

None

SP48

None

None

None

**(9)** 

**(10)** 

**(1)** 

3471

3472

III

**(2)** 

HYDROGENDIFLUORIDES

SOLUTION, N.O.S. / PG III

MONOHYDRATE / PG I

CROTONIC ACID, LIQUID / PG

1-HYDROXYBENZOTRIAZOLE

**(3)** 

**(4)** 

6.1

None

None

8

4.1

CR5

CG1, CR6,

CR19

_	<b>(1)</b>	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	(8)	(9)	(10)
	UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Appendix 5		MDC	Compatibilit
	No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP SP	LQ	MPS	2.3.3

UN	Proper Shipping Name /	GI.	Subsidiary	CI + 60+ /+	SN	Packing (A)	ppendix 5)		MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3475	ETHANOL AND GASOLINE MIXTURE or ETHANOL AND MOTOR SPIRIT MIXTURE or ETHANOL AND PETROL MIXTURE / PG II	3	None	With more than 10% ethanol	None	BP001		1	None	
3482	ALKALI METAL DISPERSION, FLAMMABLE or ALKALINE EARTH METAL DISPERSION, FLAMMABLE / PG I	4.3	3	The group of alkali metals includes lithium, sodium, potassium, rubidium and caesium.  The group of alkaline earth metals includes magnesium, calcium, strontium and barium.	None	BP402	SP31	None	None	CR5
3483	MOTOR FUEL ANTI-KNOCK MIXTURE, FLAMMABLE / PG I	6.1	3		None	BP602		None	None	CG7, CG9
3484	HYDRAZINE AQUEOUS SOLUTION, FLAMMABLE / PG I	8	3, 6.1	With more than 37% hydrazine, by mass	None	BP001		None	None	CG18, CR5, CR30
3485	CALCIUM HYPOCHLORITE, DRY, CORROSIVE or CALCUIM HYPOCHLORITE MIXTURE, DRY CORROSIVE / PG II	5.1	8	With more than 39% available chlorine (8.8% available oxygen)	None	BP002		1	1	CG8, CR5, CR10, CR19, CR28

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

UN	Proper Shipping Name /	CI.	Subsidiary	G •0• /•	SN	Packing (Ap	pendix 5)	Ι.Ο.	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3486	CALCIUM HYPOCHLORITE MIXTURE, DRY, CORROSIVE / PG III	5.1	8	With more than 10% but not more than 39% available chlorine	None	BP002		5	5	CG8, CR5, CR10, CR19, CR28
3487	CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE / PG II	5.1	8	With not less than 5.5% but not more than 16% water	322	BP002		1	1	CG8, CR5, CR10, CR19, CR28
3487	CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE / PG III	5.1	8	With not less than 5.5% but not more than 16% water	None	BP002		5	5	CG8, CR5, CR10, CR19, CR28
	TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. / PG I	6.1	3, 8	With an inhalation toxicity lower than or equal to 200 ml/m <sup>3</sup> and saturated vapour concentration greater than or equal to 500 LC <sub>50</sub>	274	BP601		None	None	CR30
	TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. / PG I	6.1		With an inhalation toxicity lower than or equal to 1 000 ml/m <sup>3</sup> and saturated vapour	274	BP602		None	None	CR30

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)	)	(8)	<b>(9)</b>	(10)
UN	Proper Shipping Name /	GI.	Subsidiary	G 101 (1	SN	Packing (Ap	pendix 5)	T 0	MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
				concentration greater than or						
				equal to 10 LC <sub>50</sub>						
				With an inhalation toxicity						
	TOXIC BY INHALATION			lower than or equal to 200 ml/m <sup>3</sup>						
3490	LIQUID, WATER- REACTIVE,	6.1	3, 4.3	and saturated vapour	274	BP601		None	None	CR30
	FLAMMABLE, N.O.S. / PG I			concentration greater than or						
				equal to 500 LC <sub>50</sub>						
				With an inhalation toxicity						
	TOXIC BY INHALATION			lower than or equal to 1 000						
3491	LIQUID, WATER- REACTIVE,	6.1	3, 4.3	ml/m³ and saturated vapour	274	BP602		None	None	CR30
	FLAMMABLE, N.O.S. / PG I			concentration greater than or						
				equal to 10 LC <sub>50</sub>						
	PETROLEUM SOUR CRUDE									
3494	OIL, FLAMMABLE, TOXIC / PG	3	6.1		343	BP001		None	None	
	I									
	PETROLEUM SOUR CRUDE									
3494	OIL, FLAMMABLE, TOXIC / PG	3	6.1		343	BP001		1	None	
	П									
	PETROLEUM SOUR CRUDE									
3494	OIL, FLAMMABLE, TOXIC / PG	3	6.1		343	BP001		5	None	
	III									
3495	IODINE / PG III	8	6.1		279	BP002		5	None	CR9

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Appe	endix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3498	IODINE MONOCHLORIDE, LIQUID / PG II	8	None		None	BP001		1	None	CG1, CR3, CR4, CR6, CR19, CR31
3500	CHEMICAL UNDER PRESSURE, N.O.S.	2.2	None		274 362	BP206		None	None	
3501	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.	2.1	None		274 362	BP206		None	None	CR7
3502	CHEMICAL UNDER PRESSURE, TOXIC, N.O.S.	2.2	6.1		274 362	BP206		None	None	
3503	CHEMICAL UNDER PRESSURE, CORROSIVE, N.O.S.	2.2	8		274 362	BP206		None	None	
3504	CHEMICAL UNDER PRESSURE, FLAMMABLE, TOXIC, N.O.S.	2.1	6.1		274 362	BP206		None	None	CR7
3505	CHEMICAL UNDER PRESSURE, FLAMMABLE, CORROSIVE, N.O.S.	2.1	8		274 362	BP206		None	None	CR7
3510	ADSORBED GAS, FLAMMABLE, N.O.S.	2.1	None		274	BP208		None	None	CR7
3511	ADSORBED GAS, N.O.S.	2.2	None		274	BP208		None	None	
3512	ADSORBED GAS, TOXIC, N.O.S.	2.3	None		274	BP208		None	None	CR7

(1)	(2)	(3)	<b>(4)</b>	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	pendix 5)	1.0	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3513	ADSORBED GAS, OXIDIZING, N.O.S.	2.2	5.1		274	BP208		None	None	CG19
3514	ADSORBED GAS, TOXIC, FLAMMABLE, N.O.S.	2.3	2.1		274	BP208		None	None	CR7
3515	ADSORBED GAS, TOXIC, OXIDIZING, N.O.S.	2.3	5.1		274	BP208		None	None	CG19, CR7
3516	ADSORBED GAS, TOXIC, CORROSIVE, N.O.S.	2.3	8		274	BP208		None	None	CR7
	ADSORBED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.	2.3	2.1, 8		274	BP208		None	None	CR7
	ADSORBED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.	2.3	5.1, 8		274	BP208		None	None	CG19, CR7
3519	BORON TRIFLUORIDE, ADSORBED	2.3	8		None	BP208		None	None	CR7
3520	CHLORINE, ADSORBED	2.3	5.1, 8		None	BP208		None	None	CG19, CR7
3521	SILICON TETRAFLUORIDE, ADSORBED	2.3	8		None	BP208		None	None	CR7
3522	ARSINE, ADSORBED	2.3	2.1		None	BP208		None	None	CR7
3523	GERMANE, ADSORBED	2.3	2.1		None	BP208		None	None	CR7

(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)
UN	Proper Shipping Name /	Class	Subsidiary	C	SN	Packing (Ap	ppendix 5)	1.0	MPS	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ		2.3.3
3524	PHOSPHORUS PENTAFLUORIDE, ADSORBED	2.3	8		None	BP208		None	None	CR7
3525	PHOSPHINE, ADSORBED	2.3	2.1		None	BP208		None	None	CR7
3526	HYDROGEN SELENIDE, ADSORBED	2.3	2.1		None	BP208		None	None	CR7
3527	POLYESTER RESIN KIT / PG II	4.1	None	This item is pre-packed. Solid base material.	236	BP412		5	1	
3527	POLYESTER RESIN KIT / PG III	4.1	None	This item is pre-packed. Solid base material.	236	BP412		5	1	
3531	POLYMERIZING SUBSTANCE, SOLID, STABILIZED, N.O.S. / PG III	4.1	None		274	BP002	SP92	None	None	CR5, CR6
3532	POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S. / PG III	4.1	None		274	BP001	SP93	None	None	CR5, CR6
3533	POLYMERIZING SUBSTANCE, SOLID, TEMPERATURE CONTROLLED, N.O.S. / PG III	4.1	None		274	BP002	SP92	None	None	CR5, CR6
3534	POLYMERIZING SUBSTANCE, LIQUID, TEMPERATURE CONTROLLED, N.O.S. / PG III	4.1	None		274	BP001	SP93	None	None	CR5, CR6

	(1)	<b>(2)</b>	(3)	<b>(4)</b>	(5)	(6)	<b>(7</b> )	(8)	<b>(9</b> )	(10)
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UN	Proper Shipping Name /	CI.	Subsidiary	G • 60 1•	SN	Packing (Appendix 5)			MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
3535	TOXIC SOLID, FLAMMABLE,	6.1	4.1		274	BP002		None	None	
	INORGANIC, N.O.S / PG I	0.1	4.1		274					
13535	TOXIC SOLID, FLAMMABLE,	6.1	4.1		274	BP002		0.5	None	
	INORGANIC, N.O.S / PG II				274					
3550	COBALT DIHYDROXIDE	6.1	None	Containing not less than 10% respirable particles	None	BP002		None	None	
	POWDER / PG I	6.1								

# **Appendix 2 – DG List: Paint Materials**

(1)	(2)	(3)	(4)	(5)	(6)	(7	")	(8)	(9)	(10)
UN	Proper Shipping Name /	- CI	Subsidiary	C • 0• 4•	SN	Packing (A	ppendix 5)		MDG	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
1139	COATING SOLUTION / PG I	3	None	Includes surface treatments or coatings used for industrial purposes such as vehicle undercoating, drum or barrel lining	None	BP001		0.5	None	
1139	COATING SOLUTION / PG II	3	None	Includes surface treatments or coatings used for industrial purposes such as vehicle undercoating, drum or barrel lining	None	BP001		5	1	
1139	COATING SOLUTION / PG III	3	None	Includes surface treatments or coatings used for industrial purposes such as vehicle undercoating, drum or barrel lining	None	BP001		5	1	
1263	PAINT / PG I	3	None	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		0.5	None	
1263	PAINT / PG II	3		Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		5	1	

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

(1)	D (1)				(S)	Poolsing (A	nnondiv F	(0)	(>)	(10)
	Proper Shipping Name / Packing Group (if any)	Class	Subsidiary Hazard	Specifications	SN (Appendix 4)	Packing (A BP	SP	LQ	MPS	Compatibility 2.3.3
1263	PAINT / PG III	3	None	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		5	1	
3066	PAINT / PG II	8	None	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		1	1	
3066	PAINT / PG III	8	None	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		5	1	
3469	PAINT, FLAMMABLE, CORROSIVE / PG I	3	8	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		None	None	
3469	PAINT, FLAMMABLE, CORROSIVE / PG II	3	8	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		1	1	
3469	PAINT, FLAMMABLE, CORROSIVE / PG III	3	8	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		5	1	
3470	PAINT, CORROSIVE, FLAMMABLE / PG II	8	3	Including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base	163	BP001		1	1	

# Appendix 3 – DG List: Class 3A DG

_	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

нк	Proper Shipping Name /	CI.	Subsidiary		SN	Packing (Appendix 5)		10	MDC	Compatibility
No.	Packing Group (if any)	Class	Hazard	Specifications	(Appendix 4)	BP	SP	LQ	MPS	2.3.3
H301	DIESEL or FUEL OIL or FURNACE OIL / PG III	3A	None	Having flashpoint exceeding 60°C (closed-cup test)	None	BP001	SP301	5	None	

# <u>Appendix 4 – Supplementary Notes</u>

# Introduction

When any Supplementary Note (SN) is specified in column 6 of the DG List in Appendices 1 to 3 for a DG, the meanings of those SN are listed in this Appendix. The SN apply regardless of the quantity of that DG, unless otherwise specified.

SN No.	
63	The division of Class 2 and the subsidiary hazards depend on the nature of the contents of the aerosol. The following provisions apply:
	(a) Class 2.1 applies if the contents include 85% by mass or more flammable components and the chemical heat of combustion is 30 kJ/g or more;
	(b) Class 2.2 applies if the contents contain 1% by mass or less flammable components and the heat of combustion is less than 20 kJ/g;
	(c) Otherwise the product shall be classified as tested by the tests described in the Manual of Tests and Criteria, Part III, section 31. Extremely flammable and flammable aerosols shall be classified in Class 2.1; non-flammable in Class 2.2;
	(d) Gases of Class 2.3 shall not be used as a propellant in an aerosol;
	(e) Where the contents other than the propellant of aerosol to be ejected are classified as Class 6.1 packing groups II or III or Class 8 packing groups II or III, the aerosol shall have a subsidiary hazard of Class 6.1 or Class 8;
	(f) Contents of the aerosols shall not meet the criteria for packing group I for toxicity or corrosivity.
	Flammable components are flammable liquids, flammable solids or flammable gases and gas mixtures as defined in Notes 1 to 3 of sub-section 31.1.3 of Part III of the Manual of Tests and Criteria. This designation does not cover pyrophoric, self-heating or water-reactive substances. The chemical heat of combustion shall be determined by one of the following methods ASTM D 240, ISO/FDIS 13943: 1999 (E/F) 86.1 to 86.3 or NFPA 30B.
122	The subsidiary hazard(s), control and emergency temperatures if any, and the generic entry number for each of the currently assigned organic peroxide formulations are given in 2.2.5.4.
127	Other inert material or inert material mixture may be used, provided that this inert material has identical phlegmatising properties.
163	Materials stored and/or conveyed under this entry shall not contain more than 20% nitrocellulose provided the nitrocellulose contains not more than 12.6% nitrogen (by dry mass).

194	The control and emergency temperatures, if any, and the generic entry number for each of the currently assigned self-reactive substances are given in 2.2.4.5.
198	Nitrocellulose solutions containing not more than 20% nitrocellulose may be classified as paint, perfumery products or printing ink, as applicable.
205	This entry shall not be used for UN 3155 PENTACHLOROPHENOL.
215	This entry only applies to the technically pure substance or to formulations derived from it having a SADT higher than 75°C and therefore does not apply to formulations which are self-reactive substances. (For self-reactive substances, see 2.2.4.5).
228	Mixtures not meeting the criteria for flammable gases (Class 2.1) shall be classified under UN 3163.
236	Polyester resin kits consist of two components: a base material (either Class 3 or Class 4.1, packing group II or III) and an activator (organic peroxide). The organic peroxide shall be type D, E, or F, not requiring temperature control. The packing group shall be II or III, according to the criteria of either Class 3 or Class 4.1, as appropriate, applied to the base material. The quantity limits for limited quantity and maximum package size specified in the DG List apply to the base material.
247	Pursuant to section 140 of Cap. 295G, the packing, marking and labelling requirements do not apply to UN 3065.
270	Aqueous solutions of Class 5.1 inorganic solid nitrate substances are considered as not meeting the criteria of Class 5.1 if the concentration of the substances in solution at the minimum temperature is not greater than 80% of the saturation limit.
273	Maneb and maneb preparations stabilised against self-heating need not be classified in Class 4.2 when it can be demonstrated by testing that a cubic volume of 1 m <sup>3</sup> of substance does not self-ignite and that the temperature at the centre of the sample does not exceed 200°C, when the sample is maintained at a temperature of not less than $75^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for a period of 24 hours.
274	The proper shipping name can be supplemented with the technical name.
279	The substance is assigned to this classification or packing group based on human experience rather than the strict application of classification criteria set out in the Code.

315	This entry shall not be used for Class 6.1 substances which meet the inhalation toxicity criteria
	for packing group I.
322	When stored and/or conveyed in non-friable tablet form, these goods are assigned to packing
	group III.
324	This substance needs to be stabilised when in concentrations of not more than 99%.
343	This entry applies to crude oil containing hydrogen sulphide in sufficient concentration that
	vapours evolved from the crude oil can present an inhalation hazard. The packing group assigned
	shall be determined by the flammability hazard and inhalation hazard, in accordance with the
	degree of danger presented.
354	This substance is toxic by inhalation.
357	Petroleum crude oil containing hydrogen sulphide in sufficient concentration that vapours evolved
	from the crude oil can present an inhalation hazard shall be classified under the entry UN 3494
	PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC.
359	Nitroglycerin solution in alcohol with more than 1% but not more than 5% nitroglycerin shall be
337	classified in Class 1 and assigned to UN 0144 if not all the requirements of basic packing
	instruction BP300 are complied with.
362	This entry applies to liquids, pastes or powders, pressurised with a propellant which meets the
	definition of a gas in 2.2.2.1.1 and 2.2.2.1.2 (a) or (b).
	NOTE: A chemical under pressure in an aerosol shall be classified under UN 1950.
	The following provisions apply:
	(a) The chemical under pressure shall be classified based on the hazard characteristics of the
	components in the different states:
	• The propellant;
	• The liquid; or
	• The solid.
	If one of these components, which can be a pure substance or a mixture, needs to be classified
	as flammable, the chemical under pressure shall be classified as flammable in Class 2.1.
	Flammable components are flammable liquids and liquid mixtures, flammable solids and
	solid mixtures or flammable gases and gas mixtures meeting the following criteria:

(i) A flammable liquid is a liquid having a flashpoint of not more than 93°C; (ii) A flammable solid is a solid which meets the criteria in 2.2.4.1.4 of the Code; (iii) A flammable gas is a gas which meets the criteria in 2.2.2.2.1 of the Code; (b) Gases of Class 2.3 and gases with a subsidiary hazard of Class 5.1 shall not be used as a propellant in a chemical under pressure; (c) Where the liquid or solid components are classified as DG of Class 6.1, packing groups II or III, or Class 8, packing groups II or III, the chemical under pressure shall be assigned a subsidiary hazard of Class 6.1 or Class 8 and the appropriate UN number shall be assigned. Components classified in Class 6.1, packing group I, or Class 8, packing group I, shall not be classified under this UN number; (d) In addition, chemicals under pressure with components meeting the properties of: Class 3, liquid desensitised explosives; Class 4.1, self-reactive substances and solid desensitised explosives; Class 4.2, substances liable to spontaneous combustion; Class 4.3, substances which, in contact with water, emit flammable gases; Class 5.1 oxidising substances or Class 5.2, organic peroxides, shall not be classified under this UN number; (e) Substances to which PP86 is assigned in respective packing provisions and therefore require air to be eliminated from the vapour space, shall not be classified under this UN number but shall be classified under their respective UN numbers as listed in the DG List. Polymeric beads may be made from polystyrene, poly (methyl methacrylate) or other polymeric 382 material. When it can be demonstrated that no flammable vapour, resulting in a flammable atmosphere, is evolved according to test U1 (Test method for substances liable to evolve flammable vapours) of Part III, sub-section 38.4.4 of the Manual of Tests and Criteria, POLYMERIC BEADS, EXPANDABLE need not be classified under this UN number. This test should only be performed when de-classification of a substance is considered. 397 Mixtures of nitrogen and oxygen containing not less than 19.5% and not more than 23.5% oxygen by volume may be contained under this item when no other oxidizing gases are present. A Class 5.1 subsidiary hazard label is not required for any concentrations within the limit. 398 The entry applies to 1-butylene, cis-2-butylene, trans-2-butylene and mixtures of butylene. For

isobutylene, see UN 1055.

# **Appendix 5 – Basic Packing Instructions**

<b>BP001</b> Basic Packing Instruction (Liquids)
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	Combination	packagings	Maximum
	Inner packagings	Outer packagings^	net mass
	[Maximum capacity]		
Glass	10 L	Drums	
Plastics	30 L	- Steel	75 kg
Metal	40 L	- Aluminium	75 kg
		- Metal, other than steel or aluminium	75 kg
		- Plastics	75 kg
		- Plywood	75 kg
		- Fibre	75 kg
		Boxes	
		- Steel	75 kg
		- Aluminium	75 kg
		- Metal, other than steel or aluminium	75 kg
		- Natural wood	75 kg
		- Plywood	75 kg
		- Reconstituted wood	75 kg
		- Fibreboard	75 kg
		- Expanded plastics	40 kg
		- Solid plastics	75 kg
		Jerricans	
		- Steel	60 kg
		- Aluminium	60 kg
		- Plastics	30 kg
	Single pa	ckagings	Maximun
			capacity
Drums			
- Steel,	non-removable head		250 L
Alumi	nium, non-removable head		250 L
Metal,	other than steel or aluminium, non-	removable head	250 L
Plastic	s, non-removable head*		250 L
Jerricans			
- Steel,	non-removable head		60 L
- Alumi	nium, non-removable head		60 L

- Plasti	cs, non-removable head*	60 L						
	Composite packagings	Maximum						
		capacity						
- Plastics receptacles in steel, aluminium or plastic drums								
- Plasti	- Plastics receptacles in fibre or plywood drums*							
- Plasti	cs receptacles in steel or aluminium crates or boxes or Plastics receptacles in wood,	60 L						
plyw	ood, fibreboard or solid plastics boxes*							
- Glass receptacles in steel, aluminium, fibre, plywood, solid plastics or expanded plastics 60								
drums, or in steel, aluminium, wood or fibreboard boxes or in wickerwork hampers								
Special I	Packing Instructions:							
SP5	For UN 1204, the packagings shall be so constructed that explosion is not possible	by reason of						
	increased internal pressure.							
SP10	For UN 1791 of PG II, the packagings shall be vented.							
<b>SP31</b> For UN 1131, 1553, 1693, 1694, 1699, 1701, 2478, 2604, 2785, 3148, 3183, 3184, 318								
	3187, 3188, 3398 (PG II and III), 3399 (PG II and III), 3413 and 3414, the packagi	ings shall be						
	hermetically sealed.							
SP33	For UN 1308 of PG I and II, only the combination of the packagings with a max	imum gross						
	mass of 75 kg are allowed.							
<b>SP93</b>	For UN 3532 and 3534, the packagings shall be designed and constructed to permi	t the release						
	of gas or vapour to prevent a build-up of pressure that could rupture the packagings	in the event						
	of loss of stabilisation.							
SP301	For H301, the use of tank with a maximum capacity of 500 L is suitable.							
	The use of intermediate bulk containers (IBCs) is suitable for containing H301 prov	ided that the						
	IBC is complied with packing instruction IBC03 in IMDG Code.							

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

<sup>\* -</sup> Not suitable for Class 3 DG of PG I.

# Basic Packing Instruction (Solids)

Combination pa	ckagings	Maximum
Inner packagings	Outer packagings^	net mass
[Maximum net mass]		
Glass 10 kg	Drums	
Plastics <sup>1</sup> 30 kg	- Steel	125 kg
Metal 40 kg	- Aluminium	125 kg
Paper <sup>1,2,3</sup> 50 kg	- Metal, other than steel or aluminium	125 kg
Fibre <sup>1,2,3</sup> 50 kg	- Plastics	125 kg
	- Plywood	125 kg
<sup>1</sup> These inner packagings shall be sift-proof.	- Fibre	125 kg
<sup>2</sup> These inner packagings shall not be used when	Boxes	
the substances may become liquid during storage	- Steel	125 kg
or conveyance.	- Aluminium	125 kg
<sup>3</sup> Paper and fibre inner packagings shall not be	- Metal, other than steel or aluminium	125 kg
used for substances of PG I.	- Natural wood	125 kg
	- Natural wood with sift-proof walls	250 kg
	- Plywood	125 kg
	- Reconstituted wood	125 kg
	- Fibreboard	75 kg
	- Expanded plastics	40 kg
	- Solid plastics	125 kg
	Jerricans	
	- Steel	75 kg
	- Aluminium	75 kg
	- Plastics	75 kg
Single packa	gings	Maximum
- ·		capacity
Drums		
- Steel <sup>4</sup>		400 kg
- Aluminium <sup>4</sup>		400 kg
- Metal, other than steel or aluminium <sup>4</sup>		400 kg
- Plastics <sup>4</sup>		400 kg
- Fibre <sup>5</sup>		400 kg
- Plywood <sup>5</sup>		400 kg
Jerricans		

- Steel	4	120 kg				
	ninium <sup>4</sup>	120 kg				
- Plast		120 kg				
Tiust		120 Kg				
<sup>4</sup> These	packagings with removable head shall not be used for substances of PG I that may					
become	liquid during storage or conveyance.					
<sup>5</sup> These p	backagings shall not be used when the substances may become liquid during storage					
or conve	yance.					
	Composite packagings	Maximum				
		capacity				
- Plast	ics receptacles in steel, aluminium, plywood, fibre or plastics drums <sup>6</sup>	400 kg				
- Plast	ics receptacles in steel or aluminium crates or boxes, wooden boxes, plywood boxes,	75 kg				
fibre	board boxes or solid plastics boxes <sup>7</sup>					
- Glass receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium,						
wood or fibreboard boxes or in wickerwork hampers or in expanded or solid plastics						
pack	agings <sup>8</sup>					
	s receptacles in plywood or fibre drums shall not be used when the substances may					
	liquid during storage or conveyance.  s receptacles in plywood or fibreboard boxes shall not be used when the substances					
	ome liquid during storage or conveyance.					
_	receptacles in plywood or fibre drums or in wickerwork hampers or in fibreboard					
boxes or	in expanded plastics packagings shall not be used when the substances may become					
liquid du	ring storage or conveyance.					
Special 1	Packing Instructions:					
SP8	For UN 2002, the packagings shall be so constructed that explosion is not possible	by reason of				
	increased internal pressure.					
SP30	For UN 2471, paper or fibre inner packagings are not suitable.					
SP31	For UN 1362, 1463, 1565, 1575, 1626, 1680, 1689, 1698, 1868, 1889, 1932, 2471	, 2545, 2546,				
	2881, 3088, 3170, 3174, 3181, 3182, 3189, 3190, 3205, 3206, 3341, 3342, 3449 a	and 3450, the				
	packagings shall be hermetically sealed.					
SP92	For UN 3531 and 3533, the packagings shall be designed and constructed to permit	the release of				
	gas or vapour to prevent a build-up of pressure that could rupture the packagings in	n the event of				
	loss of stabilisation.					
SP100	For UN 1309, 1323, 1333, 1376, 1435, 1449, 1457, 1472, 1476, 1483, 1509, 1516	, 1567, 1869,				

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

2210, 2858, 2878, 2968, 3089, 3096 and 3125, the flexible, fibreboard or wooden packagings shall be sift-proof and water-resistant or shall be fitted with a sift-proof and water-resistant liner.

### **Basic Packing Instruction**

The packagings shall comply with the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable. For the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be, outer packagings constructed of suitable material, and of adequate strength and design in relation to the packaging capacity and its intended use, shall be used.

### **Special Packing Instructions:**

- **SP17** For UN 2037, the packages shall not exceed 55 kg net mass for fibreboard packagings or 125 kg net mass for other packagings.
- **SP20** For UN 1408 and 2793, sift-proof and tearproof receptacle shall be used.
- **SP100** For UN 1408 and 2793, the flexible, fibreboard or wooden packagings shall be sift-proof and water-resistant or shall be fitted with a sift-proof and water-resistant liner.

### **Basic Packing Instruction**

	Combinati	on packagings	Maximum
	Inner packagings [Maximum Capacity]	Outer packagings^	net mass
Glass	1 L	Drums	
Steel	40 L	- Steel	400 kg
		- Plastics	400 kg
		- Plywood	400 kg
		- Fibre	400 kg
		Boxes	
		- Steel	400 kg
		- Natural wood	400 kg
		- Plywood	400 kg
		- Reconstituted wood	400 kg
		- Fibreboard	400 kg
		- Expanded plastics	60 kg
		- Solid plastics	400 kg
	Single 1	packagings	Maximum
			capacity
Drums -	- steel, non-removable head		450 L
Jerricar	s – steel, non-removable head		60 L
Compos	ite packagings – plastics receptacl	es in steel drums	250 L

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

#### **Basic Packing Instruction**

- (1) The packing requirements at 4.1.4.2 to 4.1.4.4 shall be met, if applicable.
- (2) The following two tables cover compressed gases (Table 1) and liquefied and dissolved gases (Table 2). They provide:
  - (a) the UN number, proper shipping name and classification of the DG;
  - (b) the  $LC_{50}$  for toxic gases;
  - (c) the maximum test period for periodic inspection of the pressure receptacles;
  - (d) the minimum test pressure of the pressure receptacles;
  - (e) the maximum filling ratio, i.e. maximum working pressure, of the pressure receptacles for compressed gases (where no value is given, the maximum working pressure shall not exceed two thirds of the test pressure) or the maximum filling ratio(s) dependent on the test pressure(s) for liquefied and dissolved gases; and
  - (f) Special Packing Instructions, as detailed below, that are specific to a DG.

#### Details of Special Packing Instructions (SP)

- a: Pressure receptacle for UN 1001 ACETYLENE, DISSOLVED and UN 3374 ACETYLENE, SOLVENT FREE shall be filled with a porous material, uniformly distributed, of a type that conforms to the requirements and testing specified by a standard or technical code recognised by FSD and which:
  - (i) is compatible with the pressure receptacle and does not form harmful or dangerous compounds either with the acetylene or with the solvent in the case of UN 1001; and
  - (ii) is capable of preventing the spread of decomposition of the acetylene in the porous material.
- b: In the case of UN 1001, the solvent shall be compatible with the pressure receptacle.
- m: Pressure receptacles shall be filled to a working pressure not exceeding 5 bar.
- o: In no case shall the working pressure or filling ratio shown in the table be exceeded.
- r: The filling ratio of this gas shall be limited such that, if complete decomposition occurs, the pressure does not exceed two thirds of the test pressure of the pressure receptacle.
- ra: This gas may also be packed in capsules under the following conditions:
  - (i) The mass of gas shall not exceed 150 g per capsule;
  - (ii) The capsules shall be free from faults liable to impair the strength;
  - (iii) The leakproofness of the closure shall be ensured by an additional device (cap, crown, seal, binding, etc.) capable of preventing any leakage of the closure during conveyance;
  - (iv) During conveyance over GEQ or aggregate EQ, as the case may be, the capsules shall be placed in an outer packaging of sufficient strength. A package shall not weigh more than 75 kg.

z: The necessary steps (e.g. stabilization or addition of an inhibitor) shall be taken to prevent dangerous reactions (i.e. polymerization or decomposition).

Mixtures containing UN 1911 diborane shall be filled to a pressure such that, if complete decomposition of the diborane occurs, two thirds of the test pressure of the pressure receptacle shall not be exceeded.

Mixtures containing UN 2192 germane, other than mixtures of up to 35% germane in hydrogen or nitrogen or up to 28% germane in helium or argon, shall be filled to a pressure such that, if complete decomposition of the germane occurs, two thirds of the test pressure of the pressure receptacle shall not be exceeded.

Mixtures of fluorine and nitrogen with a fluorine concentration below 35 % by volume may be filled in pressure receptacles up to a maximum allowable working pressure for which the partial pressure of fluorine does not exceed 31 bar (abs.).

working pressure (bar) 
$$< \frac{31}{x_f} - 1$$

in which  $x_f = \text{fluorine concentration in } \% \text{ by volume/} 100.$ 

Mixtures of fluorine and inert gases with a fluorine concentration below 35 % by volume may be filled in pressure receptacles up to a maximum allowable working pressure for which the partial pressure of fluorine does not exceed 31 bar (abs.), additionally taking the coefficient of nitrogen equivalency in accordance with ISO 10156:2017 into account when calculating the partial pressure. in which

working pressure (bar) 
$$< \frac{31}{x_f} (x_f + K_k \times x_k) - 1$$

 $x_f$  = fluorine concentration in % by volume/100;

 $K_k$  = coefficient of equivalency of an inert gas relative to nitrogen (coefficient of nitrogen equivalency);

 $x_k$  = inert gas concentration in % by volume/100.

However, the working pressure for mixtures of fluorine and inert gases shall not exceed 200 bar. The minimum test pressure of pressure receptacles for mixtures of fluorine and inert gases equals 1.5 times the working pressure or 200 bar, with the greater value to be applied.

BP200	Basic Packing Instruction							
	Table 1: C	ompr	essed Gase	S				
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar	Max. Filling Ratio * (maximum working pressure), bar	SP	
1002	AIR, COMPRESSED	2.2		10				
1006	ARGON, COMPRESSED	2.2		10				
1016	CARBON MONOXIDE, COMPRESSED	2.3	3760	5				
1023	COAL GAS, COMPRESSED	2.3		5				
1045	FLUORINE, COMPRESSED	2.3	185	5	200	30	o	
1046	HELIUM, COMPRESSED	2.2		10				
1049	HYDROGEN, COMPRESSED	2.1		10				
1056	KRYPTON, COMPRESSED	2.2		10				
1065	NEON, COMPRESSED	2.2		10				
1066	NITROGEN, COMPRESSED	2.2		10				
1071	OIL GAS, COMPRESSED	2.3		5				
1072	OXYGEN, COMPRESSED	2.2		10				
1612	HEXAETHYL TETRAPHOSPHATE AND COMPRESSED GAS MIXTURE	2.3		5			Z	
1660	NITRIC OXIDE, COMPRESSED	2.3	115	5	225	33	О	
1953	COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S.	2.3	≤5000	5			Z	
1954	COMPRESSED GAS, FLAMMABLE, N.O.S	2.1		10			Z	
1955	COMPRESSED GAS, TOXIC, N.O.S.	2.3	≤5000	5			z	
1956	COMPRESSED GAS, N.O.S.	2.2		10			z	
1957	DEUTERIUM, COMPRESSED	2.1		10				
1964	HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S	2.1		10			Z	
1971	METHANE, COMPRESSED	2.1		10				
2190	OXYGEN DIFLUORIDE, COMPRESSED	2.3	2.6	5	200	30	О	
3156	COMPRESSED GAS, OXIDIZING, N.O.S.	2.2		10			Z	
3303	COMPRESSED GAS, TOXIC, OXIDIZING, N.O.S.	2.3	≤5000	5			z	
3304	COMPRESSED GAS, TOXIC, CORROSIVE, N.O.S.	2.3	≤5000	5			z	

3305	COMPRESSED GAS, TOXIC, FLAMMABLE,	2.3	≤5000	5		Z
	CORROSIVE, N.O.S.					
3306	COMPRESSED GAS, TOXIC, OXIDIZING,	2.3	≤5000	5		Z
	CORROSIVE, N.O.S.					

<sup>\*</sup> Where the entries are blank, the maximum working pressure shall not exceed two thirds of the test pressure.

BP200	Basic Packing Instruction								
	Table 2: Liquefied	Gases	and Dissolv	ed Gases					
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP		
1001	ACETYLENE, DISSOLVED	2.1		10	60 52		a, b		
1005	AMMONIA, ANHYDROUS	2.3	4000	5	29	0.54			
1008	BORON TRIFLUORIDE	2.3	864	5	225 300	0.715 0.86			
1009	BROMOTRIFLUOROMETHANE (REFRIGERANT GAS R 13B1)	2.2		10	42 120 250	1.13 1.44 1.60			
1010	BUTADIENES, STABILIZED (1,2-butadiene), or	2.1		10	10	0.59			
1010	BUTADIENES, STABILIZED (1,3-butadiene), or	2.1		10	10	0.55			
1010	BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED with more than 40% butadienes	2.1		10			Z		
1011	BUTANE	2.1		10	10	0.52			
1012	BUTYLENE (butylenes mixture) or	2.1		10	10	0.50	Z		
1012	BUTYLENE (1-butylene) or	2.1		10	10	0.53			
1012	BUTYLENE (cis-2-butylene) or	2.1		10	10	0.55			
1012	BUTYLENE (trans-2-butylene)	2.1		10	10	0.54			
1013	CARBON DIOXIDE	2.2		10	190 250	0.68 0.76			
1017	CHLORINE	2.3	293	5	22	1.25			
1018	CHLORODIFLUOROMETHANE (also known as REFRIGERANT GAS R 22)	2.2		10	27	1.03			

BP200	Basic Pa	cking I	nstruction				
	Table 2: Liquefied	Gases a	and Dissolv	ed Gases			
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
1020	CHLOROPENTA FLUOROETHANE (also known as REFRIGERANT GAS R 115)	2.2		10	25	1.05	
1021	1-CHLORO-1,2,2,2- TETRAFLUOROETHANE (also known as REFRIGERANT GAS R 124)	2.2		10	11	1.20	
1022	CHLOROTRIFLUOROMETHANE (also known as REFRIGERANT GAS R 13)	2.2		10	100 120 190 250	0.83 0.90 1.04 1.11	
1026	CYANOGEN	2.3	350	5	100	0.70	
1027	CYCLOPROPANE	2.1		10	18	0.55	
1028	DICHLORODIFLUOROMETHANE (also known as REFRIGERANT GAS R 12)	2.2		10	16	1.15	
1029	DICHLOROFLUOROMETHANE (also known as REFRIGERANT GAS R 21)	2.2		10	10	1.23	
1030	1,1-DIFLUOROETHANE (also known as REFRIGERANT GAS R 152a)	2.1		10	16	0.79	
1032	DIMETHYLAMINE, ANHYDROUS	2.1		10	10	0.59	
1033	DIMETHYL ETHER	2.1		10	18	0.58	
1035	ETHANE	2.1		10	95 120 300	0.25 0.30 0.40	
1036	ETHYLAMINE	2.1		10	10	0.61	
1037	ETHYL CHLORIDE	2.1		10	10	0.80	ra
1039	ETHYL METHYL ETHER	2.1		10	10	0.64	
1040	ETHYLENE OXIDE, or ETHYLENE OXIDE WITH NITROGEN	2.3	2900	5	15	0.78	
1041	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE	2.1		10	190 250	0.66 0.75	
1043	FERTILIZER AMMONIATING SOLUTION	2.2		5			z
1048	HYDROGEN BROMIDE, ANHYDROUS	2.3	2860	5	60	1.51	

BP200	Basic Pac	cking Ir	struction				
	Table 2: Liquefied	Gases a	and Dissolv	ed Gases			
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
1050	HYDROGEN CHLORIDE, ANHYDROUS	2.3	2810	5	100 120 150 200	0.30 0.56 0.67 0.74	
1053	HYDROGEN SULPHIDE	2.3	712	5	48	0.67	
1055	ISOBUTYLENE	2.1		10	10	0.52	
1058	LIQUEFIED GASES	2.2		10			Z
1060	METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED or	2.1		10			Z
1060	METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED (Propadiene with 1% to 4% methylacetylene)	2.1		10	22	0.52	
1061	METHYLAMINE, ANHYDROUS	2.1		10	13	0.58	
1062	METHYL BROMIDE	2.3	850	5	10	1.51	
1063	METHYL CHLORIDE (also known REFRIGERANT GAS R 40)	2.1		10	17	0.81	
1064	METHYL MERCAPTAN	2.3	1350	5	10	0.78	
1067	DINITROGEN TETROXIDE (also known as NITROGEN DIOXIDE)	2.3	115	5	10	1.30	
1069	NITROSYL CHLORIDE	2.3	35	5	13	1.10	
1070	NITROUS OXIDE	2.2		10	180 225 250	0.68 0.74 0.75	
1076	PHOSGENE	2.3	5	5	20	1.23	
1077	PROPYLENE	2.1		10	27	0.43	
1078	REFRIGERANT GAS, N.O.S.	2.2		10			z
1079	SULPHUR DIOXIDE	2.3	2520	5	12	1.23	
1080	SULPHUR HEXAFLUORIDE	2.2		10	70 140	1.06 1.34	
					160	1.38	
1081	TETRAFLUOROETHYLENE, STABILIZED	2.1		10	200		m, o

BP200	Basic Pa	cking I	nstruction				
	Table 2: Liquefied	Gases	and Dissolv	ved Gases			
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
1082	TRIFLUOROCHLOROETHYLENE, STABILIZED (also known as Refrigerant gas R1113)	2.3	2000	5	19	1.13	
1083	TRIMETHYLAMINE, ANHYDROUS	2.1		10	10	0.56	
1085	VINYL BROMIDE, STABILIZED	2.1		10	10	1.37	
1086	VINYL CHLORIDE, STABILIZED	2.1		10	12	0.81	
1087	VINYL METHYL ETHER, STABILIZED	2.1		10	10	0.67	
1581	CHLOROPICRIN AND METHYL BROMIDE MIXTURE	2.3	850	5	10	1.51	
1582	CHLOROPICRIN AND METHYL CHLORIDE MIXTURE	2.3		5	17	0.81	
1589	CYANOGEN CHLORIDE, STABILIZED	2.3	80	5	20	1.03	
1741	BORON TRICHLORIDE	2.3	2541	5	10	1.19	
1749	CHLORINE TRIFLUORIDE	2.3	299	5	30	1.40	
1858	HEXAFLUOROPROPYLENE (also known as REFRIGERANT GAS R 1216)	2.2		10	22	1.11	
1859	SILICON TETRAFLUORIDE	2.3	922	5	200 300	0.74 1.10	
1860	VINYL FLUORIDE, STABILIZED	2.1		10	250	0.64	
1911	DIBORANE	2.3	80	5	250	0.07	0
1912	METHYL CHLORIDE AND METHYLENE CHLORIDE MIXTURE	2.1		10	17	0.81	
1952	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE	2.2		10	190 250	0.66 0.75	
1958	1,2-DICHLORO-1,1,2,2 TETRAFLUOROETHANE (also known as REFRIGERANT GAS R 114)	2.2		10	10	1.30	
1959	1,1-DIFLUORO- ETHYLENE (also known as REFRIGERANT GAS R 1132a)	2.1		10	250	0.77	
1962	ETHYLENE	2.1		10	225	0.34	

BP200	Basic Pa	cking Iı	nstruction				
	Table 2: Liquefied	Gases a	and Dissolv	ed Gases			
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
					300	0.38	
1965	HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S.	2.1		10			Z
1969	ISOBUTANE	2.1		10	10	0.49	
1973	CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE (also known as REFRIGERANT GAS R 502)	2.2		10	31	1.01	
1974	CHLORODIFLUOROBROMOMETHANE (also known as REFRIGERANT GAS R 12B1)	2.2		10	10	1.61	
1975	NITRIC OXIDE AND DINITROGEN TETROXIDE MIXTURE (also known as NITRIC OXIDE AND NITROGEN DIOXIDE MIXTURE)	2.3	115	5			
1976	OCTAFLUOROCYCLOBUTANE (also known as REFRIGERANT GAS RC 318)	2.2		10	11	1.32	
1978	PROPANE	2.1		10	23	0.43	
1982	TETRAFLUOROMETHANE (also known as REFRIGERANT GAS R 14)	2.2		10	200 300	0.71 0.90	
1983	CHLORO-2,2,2- TRIFLUOROETHANE (also known as REFRIGERANT GAS R 133a)	2.2		10	10	1.18	
1984	TRIFLUOROMETHANE (also known as REFRIGERANT GAS R 23)	2.2		10	190 250	0.88 0.96	
2035	1,1,1-TRIFLUOROETHANE (also known as REFRIGERANT GAS R 143a)	2.1		10	35	0.73	
2036	XENON	2.2		10	130	1.28	
2044	2,2-DIMETHYLPROPANE	2.1		10	10	0.53	
2073	AMMONIA SOLUTION	2.2		5	10 12	0.80 0.77	

BP200	Basic P	acking I	nstruction				
	Table 2: Liquefied	d Gases a	and Dissolv	ed Gases			
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
2188	ARSINE	2.3	178	5	42	1.10	
2189	DICHLOROSILANE	2.3	314	5	10 200	0.90 1.08	
2191	SULPHURYL FLUORIDE	2.3	3020	5	50	1.10	
2192	GERMANE	2.3	620	5	250	0.064	r
2193	HEXAFLUOROETHANE (REFRIGERANT GAS R 116)	2.2		10	200	1.13	
2194	SELENIUM HEXAFLUORIDE	2.3	50	5	36	1.46	
2195	TELLURIUM HEXAFLUORIDE	2.3	25	5	20	1.00	
2196	TUNGSTEN HEXAFLUORIDE	2.3	218	5	10	3.08	
2197	HYDROGEN IODIDE, ANHYDROUS	2.3	2860	5	23	2.25	
2198	PHOSPHORUS PENTAFLUORIDE	2.3	261	5	200 300	0.90 1.25	
2199	PHOSPHINE	2.3	20	5	225 250	0.30 0.45	
2200	PROPADIENE, STABILIZED	2.1		10	22	0.50	
2202	HYDROGEN SELENIDE, ANHYDROUS	2.3	51	5	31	1.60	
2203	SILANE	2.1		10	225 250	0.32 0.36	
2204	CARBONYL SULPHIDE	2.3	1700	5	30	0.87	
2417	CARBONYL FLUORIDE	2.3	360	5	200 300	0.47 0.70	
2418	SULPHUR TETRAFLUORIDE	2.3	40	5	30	0.91	
2419	BROMOTRIFLUOROETHYLENE	2.1		10	10	1.19	
2420	HEXAFLUOROACETONE	2.3	470	5	22	1.08	
2421	NITROGEN TRIOXIDE	2.3	57	5			
2422	OCTAFLUOROBUT-2-ENE (REFRIGERANT GAS R 1318)	2.2		10	12	1.34	
2424	OCTAFLUOROPROPANE (REFRIGERANT GAS R 218)	2.2		10	25	1.04	
2451	NITROGEN TRIFLUORIDE	2.2		10	200	0.50	

BP200	Basic Pa	cking Iı	nstruction				
	Table 2: Liquefied	Gases a	and Dissolv	ed Gases			
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
2452	ETHYLACETYLENE, STABILIZED	2.1		10	10	0.57	
2453	ETHYL FLUORIDE (REFRIGERANT GAS R 161)	2.1		10	30	0.57	
2454	METHYL FLUORIDE (REFRIGERANT GAS R 41)	2.1		10	300	0.63	
2517	CHLORO-1,1- DIFLUOROETHANE (also known as REFRIGERANT GAS R 142b)	2.1		10	10	0.99	
2534	METHYLCHLOROSILANE	2.3	2810	5			
2548	CHLORINE PENTAFLUORIDE	2.3	122	5	13	1.49	
2599	CHLOROTRIFLUOROMETHANE AND TRIFLUOROMETHANE AZEOTROPIC MIXTURE (also known as REFRIGERANT GAS R 503)	2.2		10	31 42 100	0.12 0.17 0.64	
2601	CYCLOBUTANE	2.1		10	10	0.63	
2602	DICHLORODIFLUOROMETHANE AND DIFLUOROETHANE AZEOTROPIC MIXTURE (also known as REFRIGERANT GAS R 500)	2.2		10	22	1.01	
2676	STIBINE	2.3	178	5	200	0.49	r
2901	BROMINE CHLORIDE	2.3	290	5	10	1.50	
3057	TRIFLUOROACETYL CHLORIDE	2.3	10	5	17	1.17	
3070	ETHYLENE OXIDE AND DICHLORODIFLUORO- METHANE MIXTURE	2.2		10	18	1.09	
3083	PERCHLORYL FLUORIDE	2.3	770	5	33	1.21	
3153	PERFLUORO (METHYL VINYL ETHER)	2.1		10	20	0.75	
3154	PERFLUORO (ETHYL VINYL ETHER)	2.1		10	10	0.98	
3157	LIQUEFIED GAS, OXIDIZING, N.O.S.	2.2		10			z
3159	1,1,1,2-TETRAFLUORO ETHANE (also known as REFRIGERANT GAS R 134a)	2.2		10	18	1.05	

BP200	Basic Packing Instruction						
	Table 2: Liquefied Gases and Dissolved Gases						
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
3160	LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S.	2.3	≤5000	5			Z
3161	LIQUEFIED GAS, FLAMMABLE, N.O.S.	2.1		10			z
3162	LIQUEFIED GAS, TOXIC, N.O.S.	2.3	≤5000	5			z
3163	LIQUEFIED GAS, N.O.S.	2.2		10			Z
3220	PENTAFLUOROETHANE (also known as REFRIGERANT GAS R125)	2.2		10	49 35	0.95 0.87	
3252	DIFLUOROMETHANE (also known as REFRIGERANT GAS R 32)	2.1		10	48	0.78	
3296	HEPTAFLUORO- PROPANE (also known as REFRIGERANT GAS R 227)	2.2		10	13	1.21	
3297	ETHYLENE OXIDE AND CHLOROTETRA- FLUOROETHANE MIXTURE	2.2		10	10	1.16	
3298	ETHYLENE OXIDE AND PENTAFLUOROETHANE MIXTURE	2.2		10	26	1.02	
3299	ETHYLENE OXIDE AND TETRAFLUOROETHANE MIXTURE	2.2		10	17	1.03	
3300	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE	2.3	> 2900	5	28	0.73	
3307	LIQUEFIED GAS, TOXIC, OXIDIZING, N.O.S.	2.3	≤5000	5			z
3308	LIQUEFIED GAS, TOXIC, CORROSIVE, N.O.S.	2.3	≤5000	5			Z
3309	LIQUEFIED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.	2.3	≤5000	5			z
3310	LIQUEFIED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.	2.3	≤5000	5			Z
3318	AMMONIA SOLUTION,	2.3		5			
3337	REFRIGERANT GAS R 404A	2.2		10	36	0.82	
3338	REFRIGERANT GAS R 407A	2.2		10	32	0.94	

BP200	Basic Packing Instruction						
	Table 2: Liquefied	Gases a	nd Dissolv	ed Gases			
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> ml/m <sup>3</sup>	Max. Test Period, years	Min. Test Pressure, bar#	Max. Filling Ratio	SP
3339	REFRIGERANT GAS R 407B	2.2		10	33	0.93	
3340	REFRIGERANT GAS R 407C	2.2		10	30	0.95	
3374	ACETYLENE, SOLVENT FREE	2.1		5	60 52		a

<sup>#</sup> Where the entries are blank, determine the maximum filling ratio according to 4.2.3.3.3 to 4.2.3.3.6 as appropriate.

#### **Basic Packing Instruction**

This instruction applies to Class 2 refrigerated liquefied gases.

UN 1003, 1038, 1073, 1913, 1951, 1961, 1963, 1966, 1970, 1972, 1977, 2187, 2201, 2591, 3136, 3138, 3158, 3311 and 3312

#### Requirements for closed cryogenic receptacles:

- (1) The packing requirements at 4.1.4.2 to 4.1.4.4 shall be met, if applicable.
- (2) The closed cryogenic receptacles shall be so thermally insulated that they do not become coated with frost.
- (3) Closed cryogenic receptacles shall be designed and constructed with suitable lifting and securing arrangements.
- (4) The mechanical properties of the metal used shall be established for each pressure receptacle, including the impact strength and the bending coefficient.

### Test pressure

- (5) Refrigerated liquids shall be filled in closed cryogenic receptacles with the following minimum test pressures:
  - (a) For closed cryogenic receptacles with vacuum insulation, the test pressure shall not be less than 1.3 times the sum of the maximum internal pressure of the filled receptacle, including during filling and discharge, plus 100 kPa (1 bar);
  - (b) For other closed cryogenic receptacles, the test pressure shall be not less than 1.3 times the maximum internal pressure of the filled receptacle, taking into account the pressure developed during filling and discharge.

### Degree of filling

- (6) For non-flammable, non-toxic refrigerated liquefied gases the volume of liquid phase at the filling temperature and at a pressure of 100 kPa (1 bar) shall not exceed 98% of the water capacity of the pressure receptacle.
- (7) For flammable refrigerated liquefied gases the degree of filling shall remain below the level at which, if the contents were raised to the temperature at which the vapour pressure equalled the opening pressure of the relief valve, the volume of the liquid phase would reach 98% of the water capacity at that temperature.

#### Pressure-relief devices

(8) Closed cryogenic receptacles shall be fitted with at least one pressure-relief device.

#### Periodic inspection

(9) The periodic inspection and test frequencies of pressure relief valves not exceed five years.

#### **Basic Packing Instruction**

This instruction applies to UN 3500, 3501, 3502, 3503, 3504 and 3505.

- (1) The packing requirements at 4.1.4.2 to 4.1.4.4 shall be met, if applicable.
- (2) The maximum test period for periodic inspection shall be 5 years. For fire-extinguishing agents assigned to UN 3500 the maximum test period for periodic inspection shall be 10 years.
- (3) Pressure receptacles shall be so filled that at 50°C the non-gaseous phase does not exceed 95% of their water capacity and they are not completely filled at 60°C. When filled, the internal pressure at 65°C shall not exceed the test pressure of the pressure receptacle.
- (4) The minimum test pressure shall be in accordance with BP200 for the propellant but shall not be less than 20 bar.
- (5) Pressure receptacles shall not be conveyed when connected with spray application equipment such as a hose and wand assembly.

#### **Basic Packing Instruction**

This instruction applies to UN 1950.

- (1) The packing requirements at 4.1.4.2 to 4.1.4.4 shall be met, if applicable.
- (2) During conveyance over GEQ or aggregate EQ, as the case may be, rigid outer packagings with a maximum net mass as follows shall be used:
  - Fibreboard box 55 kg
  - > Drum or box other than fibreboard box 125 kg

The packagings shall be designed and constructed to prevent excessive movement of the aerosols and inadvertent discharge during normal conditions of storage or conveyance.

#### **BP208**

#### **Basic Packing Instruction**

This instruction applies to Class 2 adsorbed gases.

UN 3510, 3511, 3512, 3513, 3514, 3515, 3516, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3525 & 3526.

- (1) The packing requirements at 4.1.4.2 to 4.1.4.4 shall be met, if applicable.
- (2) The minimum test pressure of the pressure receptacle shall be 21 bar.
- (3) The minimum burst pressure of the pressure receptacle shall be 94.5 bar.
- (4) The internal pressure at 65°C of the filled pressure receptacle shall not exceed the test pressure of the pressure receptacle.
- (5) The adsorbent material shall be compatible with the pressure receptacle and shall not form harmful or dangerous compounds with the gas to be adsorbed. The gas in combination with the adsorbent material shall not affect or weaken the pressure receptacle or cause a dangerous reaction (e.g. a catalyzing reaction).
- (6) The quality of the adsorbent material shall be verified at the time of each fill to assure the pressure and chemical stability requirements of this basic packing instruction are met each time an adsorbed gas package is filled.
- (7) The adsorbent material shall not be DG.
- (8) The maximum period for periodic inspections shall be 5 years.
- (9) For UN 3523, GERMANE, ADSORBED, the filling ratio shall be limited such that, if complete decomposition occurs, the pressure does not exceed two thirds of the test pressure of the pressure receptacle.

This instruction applies to UN 1051, 1052, 1745, 1746 and 2495.

- (1) Cylinder shall meet the packing requirements for pressure receptacles at 4.1.4.2 to 4.1.4.4, if applicable.
- (2) Cylinder shall be subject to periodic test frequency and minimum pressure as specified in Table 1 below. If the requirements could not be met, as an alternative, the cylinder shall undergo prescribed testing as required in the corresponding cylinder design standard subject to scrutiny by FSD.
- (3) Cylinder shall not be filled in excess of the maximum filling ratio specified in Table 1 below.
- (4) The water capacity of the cylinders shall not exceed 150 L.
- (5) Table 1 below provides:
  - (a) the UN number, name and description, and classification of the DG;
  - (b) the  $LC_{50}$  for toxic substances;
  - (c) the maximum test period for periodic inspection of the cylinders;
  - (d) the minimum test pressure of the cylinders;
  - (e) maximum filling ratio of the cylinders; and
  - (f) Special Packing Instructions, as detailed below, that are specific to a DG.
- (6) Details of Special Packing Instructions (SP):

#### Material compatibility

a: Aluminium alloy cylinder shall not be used.

### <u>Requirements for toxic substances with an LC<sub>50</sub> less than or equal to 200 ml/m<sup>3</sup> (ppm)</u>

- b: (i) Valve outlets shall be fitted with pressure retaining gas-tight plugs or caps having threads that match those of the valve outlets made of material not liable to attack by the contents of the cylinder.
  - (ii) Each cylinder within a bundle shall be fitted with an individual valve that shall be closed during storage or conveyance. After filling, the manifold shall be evacuated, purged and plugged.
  - (iii) Cylinders in a bundle shall have a test pressure greater than or equal to 200 bar and a minimum wall thickness of 3.5 mm for aluminium alloy or 2 mm for steel.
  - (iv) Cylinder shall not be fitted with a pressure relief device.
  - (v) Individual cylinder in a bundle shall be limited to a maximum water capacity of 85 L.
  - (vi) Each valve shall be capable of withstanding the test pressure of the cylinder and be connected directly to the cylinder by a taper thread or other applicable means.
  - (vii) Each valve shall either be of the packless type with non-perforated diaphragm, or be of a type which prevents leakage through or past the packing.

(viii) Each cylinder shall be tested for leakage after filling.

### Specific provisions

- c: (i) The wall thickness of cylinder shall be not less than 3 mm.
  - (ii) It shall not be packed for storage or conveyance if the pressure has risen due to potential hydrogen generation.

Table 1							
UN No.	Proper Shipping Name	Class	LC <sub>50</sub> , ml/m <sup>3</sup>	Max. Test period, years	Min. Test pressure, bar	Max. filling ratio	SP
1051	HYDROGEN CYANIDE, STABILIZED	6.1	40	5	100	0.55	b
1052	HYDROGEN FLUORIDE, ANHYDROUS	8	1307	5	10	0.84	a, c
1745	BROMINE PENTAFLUORIDE	5.1	25	5	10	*	b
1746	BROMINE TRIFLUORIDE	5.1	50	5	10	*	b
2495	IODINE PENTAFLUORIDE	5.1	120	5	10	*	b

<sup>\* -</sup> A minimum ullage of 8% by volume is required.

#### **Basic Packing Instruction**

This instruction applies to UN 3064.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Combination packagings consist of inner metal cans of not more than 1 L capacity each and outer wooden boxes containing not more than 5 L of the solution. Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

### Additional requirements when outer packaging is used:

- 1. Metal cans shall be completely surrounded with absorbent cushioning materials.
- 2. Wooden boxes shall be completely lined with suitable materials impervious to water and nitroglycerin.

#### **BP302**

#### **Basic Packing Instruction**

This instruction applies to UN 3269.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

#### **Combination Packagings**

### Outer packagings^:

- Drums (steel, aluminium, plywood, fibre, plastics, metal);
- Boxes (steel, aluminium, natural wood, plywood, reconstituted wood, fibreboard, plastics, metal)
- Jerricans (steel, aluminium, plastics);

#### **Inner packagings:**

- The activator (organic peroxide) shall have a maximum quantity of 125 ml per inner packaging if liquid and 500 g per inner packaging if solid.
- The base materials and the activator shall be each separately packed in inner packagings.

The components may be placed in the same outer packaging provided that they will not interact dangerously in the event of leakage.

^ - Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

# **Basic Packing Instruction**

Combination packagings		
Inner packagings Outer packagings^		
[Maximum capacity]		
Glass 1 L	Drums	
Metal 1 L	- Steel	125 kg
	- Aluminium	125 kg
- The glass or metal packagings, having	- Metal, other than steel or aluminium	125 kg
closures with gaskets, shall be enclosed by	- Plywood	125 kg
hermetically sealed metal can.	- Fibre	125 kg
- The glass or metal packagings shall have	Boxes	
threaded closures or closures physically held	- Steel	125 kg
in place by any means capable of preventing	- Aluminium	125 kg
back-off or loosening of the closure by	- Metal, other than steel or aluminium	125 kg
impact or vibration during handling.	- Natural wood	125 kg
- The glass or metal packagings shall be	- Plywood	
cushioned on all sides with dry, absorbent,	- Reconstituted wood	125 kg
non-combustible materials in quantity		125 kg
sufficient to absorb the entire contents.	- Fibreboard	125 kg
- The glass or metal packagings shall not be	Jerricans	1051
filled to more than 90% of their capacity.	- Steel	125 kg
	- Aluminium	125 kg
Metal can 4 L	Drums	4.50.1
	- Steel	150 kg
- The inner packagings shall be hermetically	- Aluminium	150 kg
sealed with closures fitted with gaskets.	- Metal, other than steel or aluminium	150 kg
- The inner packagings shall have threaded	Jerricans	
closures or closures physically held in place	- Steel	150 kg
by any means capable of preventing back-off	- Aluminium	150 kg
or loosening of the closure by impact or	Boxes	
vibration during handling.	- Steel	150 kg
- The inner packagings shall not be filled to	- Aluminium	150 kg
more than 90% of their capacity	- Metal, other than steel or aluminium	150 kg
	Additional requirements:	
	- The inner packagings shall be cushioned	

addition to cushioning materials.
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# **Special Packing Instructions:**

**SP86** For UN 3392 and 3394, air shall be eliminated from the vapour space by nitrogen or other means.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

### **Basic Packing Instruction**

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Combination packagings			
Inner packagings	Outer packagings^	net mass	
[Maximum capacity]			
Glass 1 L	Drums		
Metal 1 L	- Steel	30 kg	
Plastics 1 L	- Aluminium	30 kg	
	- Metal, other than steel or aluminium	30 kg	
- The inner packagings shall have threaded	- Plastics	30 kg	
closures.	- Plywood	30 kg	
	- Fibre	30 kg	
	Boxes		
	- Steel	30 kg	
	- Aluminium	30 kg	
	- Metal, other than steel or aluminium	30 kg	
	- Natural wood	30 kg	
	- Plywood	30 kg	
	- Reconstituted wood	30 kg	
	- Fibreboard	30 kg	
	- Plastics	30 kg	
	Jerricans		
	- Steel	30 kg	
	- Aluminium	30 kg	
	- Plastics	30 kg	
	Additional requirement:		
	Each inner packagings shall be surrounded		
	by inert cushioning and absorbent materials		
	in quantity sufficient to absorb the entire		
	contents.		

# **Special Packing Instructions:**

**SP31** For UN 1183, 1242, 1295, 2965 and 2988, the packagings shall be hermetically sealed.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

# **Basic Packing Instruction**

Combination packagings				
Inner packagings Outer packagings^				
[Maximum net mass]				
Glass 10 kg	Drums			
Metal 15 kg	- Steel, non-removable head	250 kg		
Plastics 15 kg	- Steel, removable head	125 kg		
	- Aluminium	125 kg		
	- Metal, other than steel or aluminium	125 kg		
- The inner packagings shall have threaded	- Plastics	125 kg		
closures.	- Plywood	125 kg		
	- Fibre	125 kg		
	Boxes			
	- Steel	125 kg		
	- Aluminium	125 kg		
	- Metal, other than steel or aluminium	125 kg		
	- Natural wood	125 kg		
	- Plywood	125 kg		
	- Reconstituted wood	125 kg		
	- Fibreboard	125 kg		
	- Plastics	125 kg		
	Jerricans			
	- Steel	125 kg		
	- Aluminium	125 kg		
	- Plastics	125 kg		
	Additional requirement: The inner packagings shall be surrounded by inert cushioning and absorbent materials in quantity sufficient to absorb the entire contents.			

Composite packagings	Maximum
	capacity
- Plastics receptacles in steel or aluminium drums	250 L

# **Special Packing Instructions:**

**SP31** For UN 1389, 1391, 1392, 1420, 1421, 1422, 3148, 3184 (PG II), 3185 (PG II), 3187 (PG II), 3188 (PG II), 3398 (PG I), 3399 (PG I) and 3482, the packagings shall be hermetically sealed.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

# Basic Packing Instruction

Combination packagings		
Inner packagings	Outer packagings^	net mass
[Maximum net mass]		
Glass 2 kg	Drums	
Plastic 15 kg	- Steel	400 kg
Metal 20 kg	- Aluminium	400 kg
	- Metal, other than steel or aluminium	400 kg
- The inner packagings shall be hermetically	- Plastics	400 kg
sealed (e.g. by taping or by threaded	- Plywood	400 kg
closures).	- Fibre	400 kg
	Boxes	
	- Steel	400 kg
	- Aluminium	400 kg
	- Metal, other than steel or aluminium	400 kg
	- Natural wood	250 kg
	- Plywood	250 kg
	- Reconstituted wood	125 kg
	- Fibreboard	125 kg
	- Expanded plastics	60 kg
	- Solid plastics	250 kg
	Jerricans	
	- Steel	120 kg
	- Aluminium	120 kg
	- Plastics	120 kg

Single packagings		
	net mass	
Drums		
- Steel	250 kg	
- Aluminium	250 kg	
- Metal, other than steel or aluminium	250 kg	
- Plastics	250 kg	
Jerricans		
- Steel	120 kg	
- Aluminium	120 kg	
- Plastics	120 kg	
Composite packagings	Maximum	
	net mass	
- Plastics receptacles in steel or aluminium drums	250 kg	
- Plastics receptacles in fibre, plastics or plywood drums	75 kg	
- Plastics receptacles in steel, aluminium, wood, plywood, fibreboard or solid plastics box	es 75 kg	

### **Special Packing Instructions:**

**SP31** For UN 1360, 1397, 1402, 1404, 1407, 1409, 1410, 1413, 1414, 1415, 1418, 1419, 1423, 1426, 1427, 1428, 1432, 1433, 1436, 1714, 1870, 2010, 2011, 2012, 2013, 2257, 2463, 2806, 2813, 3131, 3132, 3134, 3135, 3208, 3209, 3395, 3396, 3397, 3401, 3402, 3403 and 3404, the packagings shall be hermetically sealed.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

### **Basic Packing Instruction**

This instruction applies to pyrophoric solids: UN 1383, 1854, 1855, 2008, 2441, 2545, 2546, 2846, 2881, 3200, 3391, 3393.

Combination packagings				
Inner packagings	Outer packagings^	net mass		
[Maximum net mass]				
Glass 1 kg	Drums			
Metal 15 kg				
	- Steel	125 kg		
- The inner packagings shall be hermetically	- Aluminium	125 kg		
sealed;	- Metal, other than steel or aluminium	125 kg		
- The glass receptacles, having closures with	- Plastics	125 kg		
gaskets, shall be cushioned on all sides and	- Plywood	125 kg		
contained in hermetically sealed metal can.	- Fibre	125 kg		
	Boxes			
	- Steel	125 kg		
	- Aluminium	125 kg		
	- Metal, other than steel or aluminium	125 kg		
	- Natural wood	125 kg		
	- Plywood	125 kg		
	- Reconstituted wood	125 kg		
	- Fibreboard	125 kg		
	- Plastics	125 kg		
Single Packa	gings	Maximum		
Drums				
- Steel		150 kg		
- Aluminium, non-removable head only		150 kg		
- Metal, other than steel or aluminium		150 kg		
Jerricans				
- Steel		150 kg		
- Aluminium		150 kg		

Composite packagings				
		gross mass		
- Plast	- Plastics receptacles in steel or aluminium drums			
Special	Special Packing Instructions:			
SP31	For UN 1383, 1854, 1855, 2008, 2441, 2545, 2546, 2846, 2881 and 3200, the packa	gings shall be		
	hermetically sealed.			
<b>SP86</b>	For UN 3391 and 3393, air shall be eliminated from the vapour space by nitrogen or	r other means.		

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

This instruction applies to UN 1381.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

# For UN 1381, wet phosphorus

Combination packagings		
Outer packagings^	net mass	
Boxes		
- Steel	75 kg	
- Aluminium	75 kg	
- Metal, other than steel or aluminium	75 kg	
- Natural wood	75 kg	
- Plywood	75 kg	
- Reconstituted wood	75 kg	
Additional requirement:		
The glass inner packagings shall be		
cushioned on all sides with dry,		
absorbent, non-combustible material in		
quantity sufficient to absorb the entire		
contents		
	Outer packagings^  Boxes - Steel - Aluminium - Metal, other than steel or aluminium - Natural wood - Plywood - Reconstituted wood  Additional requirement: The glass inner packagings shall be cushioned on all sides with dry, absorbent, non-combustible material in quantity sufficient to absorb the entire	

	Single Packagings	
		gross mass
D	Drums	
-	Steel	400 kg
-	Aluminium	400 kg
-	Metal, other than steel or aluminium	400 kg
Je	Jerricans	
-	Steel, non-removable head	120 kg
-	Aluminium, non-removable head	120 kg

#### For UN 1381, **dry phosphorus** (when fused)

	Single Packagings	Maximum	
		net mass	
Dr	ums		
-	Steel, removable head	400 kg	
-	Aluminium, removable head	400 kg	

- Meta	- Metal, other than steel or aluminium, removable head		
Special	Special Packing Instructions:		
SP31	For UN 1381, the packagings shall be hermetically sealed.		

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

#### **Basic Packing Instruction**

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

•		4 •	
( 'nm	hina	tion	packagings
	MILLO	LLULL	pacisagings

Inner packagings	Outer packagings^
The inner packgings shall be water-resistant.	Drums
	- Fibre
	- Plywood
	- Plastics
	Boxes
	- Natural wood
	- Plywood
	- Reconstituted wood
	- Fibreboard
	- Plastic
	Jerricans
	- Plastics

#### **Single Packagings**

- Plastics, plywood, fibreboard drums with water-resistant inner bag, plastic film linings or water-resistant coatings.
- Steel, aluminium, metal other than steel or aluminium, natural wood, plywood, reconstituted wood, fibreboard, plastics boxes with water-resistant inner bags, plastic film linings or water-resistant coatings.
- Metal drums (steel, aluminium, metal, other than steel or aluminium), plastic drums, steel or aluminium jerricans, plastics jerricans.

#### **Composite packagings**

- Plastics receptacles in steel, aluminium, fibre, plastics or plywood drums.
- Plastics receptacles in steel, aluminium, wood, plywood, fibreboard or solid plastics boxes.

#### **Additional requirements:**

- 1. Packagings shall be designed and constructed to prevent the loss of water or alcohol content or the content of the phlegmatizer.
- 2. Packagings shall be so constructed and closed so as to avoid an explosive over-pressure or pressure build-up of more than 300 kPa (3 bar).

#### **Special Packing Instructions:**

- **SP24** UN 2852, 3364, 3365, 3366, 3367, 3368 and 3369 shall not be packed in quantities of more than 500 g per package.
- **SP25** UN 1347 shall not be packed in quantities of more than 15 kg per package.
- **SP26** For UN 1310, 1320, 1321, 1322, 1344, 1347, 1348, 1349, 1517, 2907, 3317, 3344 and 3376, the packagings shall be lead-free.

- **SP31** For UN 1310, 1320, 1321, 1322, 1336, 1337, 1344, 1347, 1348, 1349, 1354, 1355, 1356, 1357, 1517, 1571, 2555, 2556, 2557, 2852, 3317, 3364, 3365, 3366, 3367, 3368, 3369, 3370 and 3376, the packagings shall be hermetically sealed.
- **SP48** For UN 3474, metal packagings shall not be used. Packagings of other materials with a small amount of metal, for example, metal closures or other metal fittings, are not considered as metal packagings.
- **SP78** UN 3370 shall not be conveyed in quantities of more than 11.5 kg per package.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

**Basic Packing Instruction** 

This instruction applies to UN 1331, 1944, 1945 and 2254.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Combination packagings		
Inner packagings	Outer packagings^	gross mass
Matches shall be tightly packed in securely closed	Drums	
inner packagings to prevent accidental ignition	- Steel	45 kg
under normal conditions of conveyance.	- Aluminium	45 kg
	- Metal, other than steel or aluminium	45 kg
	- Plastics	45 kg
	- Plywood	45 kg
	- Fibre	45 kg
	Boxes	
	- Steel	45 kg
	- Aluminium	45 kg
	- Metal, other than steel or aluminium	45 kg
	- Natural wood	45 kg
	- Plywood	45 kg
	- Reconstituted wood	45 kg
	- Fibreboard	30 kg
	- Plastics	45 kg
	Jerricans	
	- Steel	45 kg
	- Aluminium	45 kg
	- Plastics	45 kg

#### **Special Packing Instructions:**

SP27 For UN 1331, strike-anywhere matches, shall not be packed in the same outer packaging (during storage over the GEQ/IEQ/SEQ or aggregate EQ, or conveyance over the GEQ or aggregate EQ, as the case may be) with any other DG other than safety matches or wax Vesta matches, which shall be packed in separate inner packagings. Inner packagings shall not contain more than 700 strike-anywhere matches.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **BP409** Basic Packing Instruction

This instruction applies to UN 2956, 3242 and 3251.

Combination packagings		Maximum
Inner packagings Outer packagings^		net mass
[Maximum net mass / quantity]		
Plastic 5 kg	Drum	
	- Fibre	25 kg
	Boxes	
	- Fibreboard	25 kg
Plastic bag 1 (quantity)	Boxes	
	- Fibreboard	50 kg
Single packa	agings	Maximum
		net mass
Fibre drums which may be fitted with liners or co	patings	50 kg

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

Combination packagings		
Inner packagings Outer packagings^		net mass
[Maximum net mass]		
Glass 10 kg	Drums	
Plastics <sup>1</sup> 30 kg	- Steel	400 kg
Metal, 40 kg	- Aluminium	400 kg
other than	- Metal, other than steel or aluminium	400 kg
steel or	- Plastics	400 kg
aluminium	- Plywood	400 kg
Paper <sup>1,2</sup> 10 kg	- Fibre	400 kg
Fibre <sup>1,2</sup> 10 kg	Boxes	
	- Steel	400 kg
<sup>1</sup> The packagings shall be sift-proof.	- Aluminium	400 kg
<sup>2</sup> These inner packagings shall not be used when	- Metal, other than steel or aluminium	400 kg
the substances may become liquid during storage	- Natural wood	400 kg
or conveyance.	- Plywood	400 kg
	- Reconstituted wood	400 kg
	- Fibreboard <sup>1</sup>	400 kg
	- Expanded plastics	60 kg
	- Solid plastics	400 kg
	Jerricans	
	- Steel	120 kg
	- Aluminium	120 kg
	- Plastics	120 kg
Single packa	gings	Maximun
		net mass
Drums		
- Steel		400 kg
- Aluminium		400 kg
- Metal, other than steel or aluminium		400 kg
- Plastics		400 kg
Jerricans		
- Steel		120 kg
- Aluminium		120 kg
- Plastics		120 kg

- Steel	3	400 kg			
- Alur	ninium <sup>3</sup>	400  kg			
- Meta	al, other than steel or aluminium <sup>3</sup>	400  kg			
- Natu	ral wood <sup>3</sup>	400 kg			
- Plyw	$vood^3$	400 kg			
- Reco	onstituted wood <sup>3</sup>	400 kg			
- Fibro	eboard <sup>3</sup>	400 kg			
- Solid	l plastics <sup>3</sup>	400 kg			
Bags					
_	s (water-resistant woven plastic or plastic film / water-resistant textile / multiwall, r-resistant paper) <sup>3,4</sup>	50 kg			
watc	i-resistant paper)				
<sup>3</sup> These	packages shall not be used when the substances may become liquid during storage				
or conve	yance.				
<sup>4</sup> For PC	II DG, these packagings shall not be used when conveyed in open cargo transport				
units.					
	Composite packagings	Maximum			
		net mass			
- Plast	- Plastics receptacles in steel, aluminium, plywood, fibre or plastics drums 400 kg				
- Plastics receptacles in steel or aluminium crates or boxes, wooden boxes, plywood boxes,					
fibreboard boxes or solid plastics boxes					
11016	board boxes of solid plastics boxes				
	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium,	75 kg			
- Glas	-	75 kg			
- Glas	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium,	75 kg			
- Glas wood pack	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics	75 kg			
- Glas wood pack	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings				
- Glas wood pack	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:	2, 1384, 1385,			
- Glas wood pack	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382	2, 1384, 1385, , 1431, 1436,			
- Glas wood pack	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382 1390, 1393, 1394, 1395, 1396, 1398, 1400, 1401, 1402, 1405, 1409, 1417, 1418.	2, 1384, 1385, , 1431, 1436, , 2835, 2844,			
- Glas wood pack	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382 1390, 1393, 1394, 1395, 1396, 1398, 1400, 1401, 1402, 1405, 1409, 1417, 1418, 1437, 1871, 1923, 1929, 2004, 2008, 2318, 2545, 2546, 2624, 2805, 2813, 28300, 28300, 28300, 28300, 28300, 28300, 283000, 283000, 283000, 2830000, 28300000000000000000	2, 1384, 1385, , 1431, 1436, , 2835, 2844,			
- Glas wood pack	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382 1390, 1393, 1394, 1395, 1396, 1398, 1400, 1401, 1402, 1405, 1409, 1417, 1418, 1437, 1871, 1923, 1929, 2004, 2008, 2318, 2545, 2546, 2624, 2805, 2813, 2830, 2881, 2940, 3078, 3088, 3131, 3132, 3134, 3135, 3170, 3182, 3189, 3190, 3205	2, 1384, 1385, , 1431, 1436, , 2835, 2844,			
- Glas wood pack Special SP31	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382 1390, 1393, 1394, 1395, 1396, 1398, 1400, 1401, 1402, 1405, 1409, 1417, 1418, 1437, 1871, 1923, 1929, 2004, 2008, 2318, 2545, 2546, 2624, 2805, 2813, 2830, 2881, 2940, 3078, 3088, 3131, 3132, 3134, 3135, 3170, 3182, 3189, 3190, 3205, 3209, 3395, 3396 and 3397, the packagings shall be hermetically sealed.	2, 1384, 1385, , 1431, 1436, , 2835, 2844, , 3206, 3208,			
- Glas wood pack Special SP31	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382 1390, 1393, 1394, 1395, 1396, 1398, 1400, 1401, 1402, 1405, 1409, 1417, 1418, 1437, 1871, 1923, 1929, 2004, 2008, 2318, 2545, 2546, 2624, 2805, 2813, 2830, 2881, 2940, 3078, 3088, 3131, 3132, 3134, 3135, 3170, 3182, 3189, 3190, 3205, 3209, 3395, 3396 and 3397, the packagings shall be hermetically sealed.  For UN 1378, for metal packagings, a venting device is required.	2, 1384, 1385, , 1431, 1436, , 2835, 2844, , 3206, 3208,			
- Glas wood pack Special SP31	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382 1390, 1393, 1394, 1395, 1396, 1398, 1400, 1401, 1402, 1405, 1409, 1417, 1418, 1437, 1871, 1923, 1929, 2004, 2008, 2318, 2545, 2546, 2624, 2805, 2813, 2830, 2881, 2940, 3078, 3088, 3131, 3132, 3134, 3135, 3170, 3182, 3189, 3190, 3205, 3209, 3395, 3396 and 3397, the packagings shall be hermetically sealed.  For UN 1378, for metal packagings, a venting device is required.  For the following UN Nos. falling in PG II, bags are not allowed: 1326, 1340, 1352	2, 1384, 1385, 1431, 1436, 2835, 2844, 3206, 3208, 2, 1358, 1374, 1418, 1436,			
- Glas wood pack Special SP31	s receptacles in steel, aluminium, plywood or fibre drums or in steel, aluminium, den, or fibreboard boxes or wickerwork hampers or in expanded or solid plastics agings  Packing Instructions:  For UN 1326, 1339, 1340, 1341, 1343, 1352, 1358, 1373, 1374, 1378, 1379, 1382, 1390, 1393, 1394, 1395, 1396, 1398, 1400, 1401, 1402, 1405, 1409, 1417, 1418, 1437, 1871, 1923, 1929, 2004, 2008, 2318, 2545, 2546, 2624, 2805, 2813, 2830, 2881, 2940, 3078, 3088, 3131, 3132, 3134, 3135, 3170, 3182, 3189, 3190, 3205, 3209, 3395, 3396 and 3397, the packagings shall be hermetically sealed.  For UN 1378, for metal packagings, a venting device is required.  For the following UN Nos. falling in PG II, bags are not allowed: 1326, 1340, 1352, 1378, 1382, 1390, 1393, 1394, 1395, 1396, 1400, 1401, 1402, 1405, 1409, 1417, 1407, 1408, 1409, 1417, 1408, 1382, 1390, 1393, 1394, 1395, 1396, 1400, 1401, 1402, 1405, 1409, 1417, 1407, 1408, 1409, 1417, 1408, 1382, 1390, 1393, 1394, 1395, 1396, 1400, 1401, 1402, 1405, 1409, 1417, 1407, 1408, 1409, 1417, 1408, 1382, 1390, 1393, 1394, 1395, 1396, 1400, 1401, 1402, 1405, 1409, 1417, 1408, 1382, 1390, 1393, 1394, 1395, 1396, 1400, 1401, 1402, 1405, 1409, 1417, 1408, 1409, 1417, 1408, 1409, 1417, 1408, 1409, 1417, 1408, 1409, 1407, 1409, 1417, 1408, 1409, 1407, 1409, 1407, 1409, 1417, 1408, 1409, 1407, 1409, 1417, 1408, 1409, 1407, 1409, 1407, 1409, 1407, 1409, 1407, 1409, 1407, 1409, 1407, 1408, 1409, 1407, 1409, 1407, 1409, 1407, 1408, 1409, 1407, 1409, 1409, 1407, 1409, 140	2, 1384, 1385, , 1431, 1436, , 2835, 2844, , 3206, 3208, 2, 1358, 1374, , 1418, 1436, 208 and 3209.			

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

### **Basic Packing Instruction**

This instruction applies to UN 3270.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Single packagings	
	net mass
Drums	
- Steel, removable head	30 kg
- Aluminium, removable head	30 kg
- Metal, other than steel or aluminium, removable head	30 kg
- Plastics, removable head	30 kg
- Plywood	30 kg
- Fibre	30 kg
Boxes	
- Steel	30 kg
- Aluminium	30 kg
- Metal, other than steel or aluminium	30 kg
- Natural wood	30 kg
- Plywood	30 kg
- Reconstituted wood	30 kg
- Fibreboard	30 kg
- Plastics	30 kg
Jerricans	
- Steel, removable head	30 kg
- Aluminium, removable head	30 kg
- Plastics, removable head	30 kg

## Additional requirement:

Provided that explosion is not possible by reason of increased internal pressure.

#### **Basic Packing Instruction**

This instruction applies to UN 3527.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

#### 1. Outer packagings^:

- **Drums** (steel, aluminium, other metal, plastics, plywood, fibre)
- **Boxes** (steel, aluminium, other metal, natural wood, plywood, reconstituted wood, fibreboard, plastics)
- **Jerricans** (steel, aluminium, plastics)

#### 2. Inner packagings:

- The activator (organic peroxide) shall have a maximum quantity of 125 ml per inner packaging if liquid, and 500 g per inner packaging if solid.
- The base materials and the activator shall be each separately packed in inner packagings.

The components may be placed in the same outer packaging provided that they will not interact dangerously in the event of a leakage.

^ - Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

Basic Packing Instruction (Liquids)

This instruction applies to UN 2015.

Combination packagings				
Inner packagings		Outer packagings^	net mass	
[Maxim	aximum capacity]			
Glass	5 L	Drums		
Metal	5 L	- Steel	125 kg	
Plastics	5 L	- Aluminium	125 kg	
		- Metal, other than steel or aluminium	125 kg	
		- Plastics	125 kg	
		- Plywood	125 kg	
		Boxes		
		- Steel	125 kg	
		- Aluminium	125 kg	
		- Metal, other than steel or aluminium	125 kg	
		- Natural wood	125 kg	
		- Plywood	125 kg	
		- Solid plastics	125 kg	
		Jerricans		
		- Steel	125 kg	
		- Aluminium	125 kg	
		- Plastics	125 kg	
Plastics	2 L	Drums		
Metal	2 L	- Fibre	50 kg	
		Boxes		
- Each pl	lastic and metal	- Fibreboard	50 kg	
inner p	packaging shall			
be put i	n a plastics bag.			
		Single packagings	Maximum	
			capacity	
Drums				
- Steel, n	non-removable h	ead	250 L	
- Alumir	nium, non-remov	able head	250 L	
- Metal,	other than steel o	or aluminium, non-removable head	250 L	
- Plastics	s, non-removable	e head	250 L	

Je	erricans	
-	Steel, non-removable head	60 L
-	Aluminium, non-removable head	60 L
-	Plastics, non-removable head	60 L
	Composite packagings	Maximum
		capacity
-	Plastics receptacles in steel or aluminium drums	250 L
_	Plastics receptacles in fibre, plastics or plywood drums	250 L
_	Plastics receptacles in steel or aluminium crates or boxes or Plastic receptacles in wood,	60 L
	plywood, fibreboard or solid plastics boxes	
_	Glass receptacles in steel, aluminium, fibre or plywood drums or in steel, aluminium,	60 L
	wood or fibreboard boxes or in wickerwork hampers or in expanded or solid plastics	
	packagings	

## **Additional requirements:**

- 1. The packagings shall have a minimum ullage of 10%.
- 2. The packagings shall be vented.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

Combination packagings		Maximum	
	Inner packagings	Outer packagings^	net mass
	[Maximum capacity]		
Glass	5 L	Drums	
Metal	5 L	- Steel	125 kg
Plastics	5 L	- Aluminium	125 kg
		- Metal, other than steel or aluminium	125 kg
		- Plywood	125 kg
		- Fibre	125 kg
		- Plastics	125 kg
		Boxes	
		- Steel	125 kg
		- Aluminium	125 kg
		- Metal, other than steel or aluminium	125 kg
		- Natural wood	125 kg
		- Plywood	125 kg
		- Reconstituted wood	125 kg
		- Fibreboard	125 kg
		- Expanded plastics	60 kg
		- Solid plastics	125 kg
	Single 1	packagings	Maximum
			capacity
Drums			
- Steel,	non-removable head		250 L
- Alumi	nium, non-removable head		250 L
- Plastic	es, non-removable head		250 L
Jerricans			
- Steel,	non-removable head		60 L
- Alumi	nium, non-removable head		60 L
- Plastic	es, non-removable head		60 L
	Composit	te packagings	Maximum
			capacity
- Plastic	es receptacles in steel or aluminium	n drums	250 L
- Plastic	es receptacles in fibre, plastic or pl	ywood drums	250 L
- Plastic	es receptacles in steel or aluminiur	n crates or boxes or Plastic receptacles in wood,	60 L
plywo	od, fibreboard or solid plastic box	es	

_	Glass receptacles in steel, aluminium, fibre or plywood drums or in steel, aluminium,	60 L
	wood or fibreboard boxes or in wickerwork hampers or in expanded or solid plastics	
	packagings	

# **Special Packing Instructions:**

**SP28** For UN 1873, parts of packagings which are in direct contact with perchloric acid shall be constructed of glass or plastics.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

# BP503 Basic Packing Instruction

Combination packagings		Maximum	
	Inner packagings Outer packagings^		net mass
	[Maximum net mass]		
Glass	5 kg	Drums	
Metal	5 kg	- Steel	125 kg
Plastics	5 kg	- Aluminium	125 kg
		- Metal, other than steel or aluminium	125 kg
		- Fibre	125 kg
		- Plywood	125 kg
		- Plastics	125 kg
		Boxes	
		- Steel	125 kg
		- Aluminium	125 kg
		- Metal, other than steel or aluminium	125 kg
		- Natural wood	125 kg
		- Plywood	125 kg
		- Reconstituted wood	125 kg
		- Fibreboard	40 kg
		- Expanded plastics	60 kg
		- Solid plastics	125 kg
	Single 1	packagings	Maximum
			net mass
Drums			
- Steel,	aluminium or metal, other than ste	eel or aluminium	250 kg
- Fibreb	oard, fitted with inner liners		200 kg
- Plywo	od, fitted with inner liners		200 kg

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

Combination packagings			Maximum
	Inner packagings	Outer packagings^	net mass
	[Maximum capacity]		
Glass	5 L	Drums	
Plastics	30 L	- Steel	75 kg
		- Aluminium	75 kg
		- Metal, other than steel or	75 kg
		aluminium	
		- Plastics	75 kg
		- Plywood	75 kg
		- Fibre	75 kg
		Boxes	
		- Steel	75 kg
		- Aluminium	75 kg
		- Metal, other than steel or	75 kg
		aluminium	
		- Natural wood	75 kg
		- Plywood	75 kg
		- Reconstituted wood	75 kg
		- Fibreboard	75 kg
		- Solid plastics	75 kg
Metal	40 L	Drums	
		- Steel	225 kg
		- Aluminium	225 kg
		- Metal, other than steel or	225 kg
		aluminium	
		- Plastics	225 kg
		- Plywood	225 kg
		- Fibre	125 kg
		Boxes	
		- Steel	225 kg
		- Aluminium	225 kg
		- Metal, other than steel or	225 kg
		aluminium	
		- Natural wood	225 kg

ĺ	1.	- Plywood	225 kg
		- Reconstituted wood	125 kg
		- Fibreboard	125 kg 125 kg
		- Solid plastics	225 kg
	Single packagir		Maximum
	Single packagn	igs	capacity
Dr	ums		capacity
<b>D</b> 1	Steel, non-removable head		250 L
_	Aluminium, non-removable head		250 L 250 L
_	Metal, other than steel or aluminium, non-remov	yahla haad	250 L 250 L
_	Plastics, non-removable head	able flead	250 L 250 L
To:	ricans		230 L
Je			60 L
-	Steel, non-removable head		
-	- Aluminium, non-removable head - Plastics, non-removable head		60 L
-			60 L
	Composite packaş	gings	Maximum
			capacity
-	Plastics receptacles in steel or aluminium drums		250 L
-	Plastics receptacles in fibre, plastic or plywood of	drums	120 L
-	Plastics receptacles in steel or aluminium crates o	or boxes or Plastics receptacles in wood,	60 L
	plywood, fibreboard or solid plastics boxes		
-	Glass receptacles in steel, aluminium, fibre or p	plywood drums or in steel, aluminium,	60 L
	wood or fibreboard boxes or in wickerwork har	mpers or in expanded or solid plastics	
	packagings		
Sp	ecial Packing Instructions:		
SP	10 For UN 2014 and 3149, the packagings sh	nall be vented.	
SP	31 For UN 2626, the packagings shall be her	metically sealed.	

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

This instruction applies to UN 3375.

	Combinati	ion packagings	Maximum
Inner packagings Outer packagings^		net mass	
	[Maximum capacity]		
Glass	5 L	Drums	
Plastics	5 L	- Aluminium, removable head	125 kg
Metal	5 L	- Fibre	125 kg
		- Metal, other than steel or aluminium,	125 kg
		removable head	
		- Plastics, removable head	125 kg
		- Plywood	125 kg
		Boxes	
		- Aluminium	125 kg
		- Natural wood	125 kg
		- Plywood	125 kg
		- Fibreboard	125 kg
		- Solid plastics	125 kg
		Jerricans	
		- Aluminium, removable head	125 kg
		- Plastics, removable dead	125 kg
	Single	packagings	Maximum
			capacity
Drums			
- Alumi	nium		250 L
- Plastic	S		250 L
Jerricans			
- Alumi	nium		60 L
- Plastic	S		60 L
	Composi	te packagings	Maximum
			capacity
- Plastic	s receptacles in aluminium drums	S	250 L
- Plastic	s receptacles in fibre, plastics or p	olywood drums	250 L
- Plastic	s receptacles in aluminium crate	es or boxes or Plastics receptacles in wooden,	60 L
plywoo	od, fibreboard or solid plastics bo	xes	
	-		

- Glass receptacles in aluminium, fibre or plywood drums or in expanded or solid plastics receptacles or in aluminium crates or boxes or in wooden or fibreboard boxes or in wickerwork hampers

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

#### **Basic Packing Instruction**

This instruction applies to organic peroxides of Class 5.2 and self-reactive substances of Class 4.1.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

The packing methods are designated OP1 to OP8. The packing methods appropriate for the individual currently assigned organic peroxides and self-reactive substances are listed in 2.2.4.5 and 2.2.5.4. The quantities specified for each packing method are the maximum quantities permitted per package. The following packagings are suitable:

- (1) Combination packagings with outer packagings<sup>^</sup> comprising boxes, drums (except metal, other than steel or aluminium), jerricans;
- (2) Single packagings consisting of drums (except metal, other than steel or aluminium) and jerricans;
- (3) Composite packagings with plastic inner receptacles.

Maximum quantity per packaging / package <sup>a</sup> for packing methods OP1 to OP8								
Packing method	OP1	OP2 <sup>a</sup>	OP3	OP4 <sup>a</sup>	OP5	OP6	OP7	OP8
Maximum								
quantity								
Maximum mass (kg) for	0.5	0.5/10	5	5/25	25	50	50	$60 / 200 / 400^{b}$
solids and for combination								
packagings (liquid and								
solid)								
Maximum contents in L	0.5	-	5	-	30	60	60	60 <sup>d</sup> / 225
for liquid <sup>c</sup>								

<sup>&</sup>lt;sup>a</sup> If two values are given, the first applies to the maximum net mass per inner packaging and the second to the maximum net mass of the complete package.

#### **Additional requirements:**

- 1. Metal packagings, including inner packagings of combination packagings and outer packagings of combination or composite packagings may only be used for packing methods OP7 and OP8;
- 2. In combination packagings, glass receptacles may only be used as inner packagings with a maximum content of 0.5 kg for solids or 0.5 L for liquids.
- 3. In combination packagings, cushioning materials shall not be readily combustible.

<sup>&</sup>lt;sup>b</sup> 60 kg for jerricans / 200 kg for boxes and, for solids, 400 kg in combination packagings with outer packagings comprising boxes (except metal) and with inner packagings of plastics or fibre with a maximum net mass of 25 kg.

<sup>&</sup>lt;sup>c</sup> Viscous liquids shall be treated as solids when they do not meet the relevant criteria provided in the definition for "liquids <sup>e</sup>".

<sup>&</sup>lt;sup>d</sup> 60 L for jerricans.

<sup>&</sup>lt;sup>e</sup> Liquids are DG which at 50°C have a vapour pressure of not more than 300 kPa (3 bar), which are not completely gaseous at 20°C and at a pressure of 101.3 kPa, and which have a melting point or initial melting point of 20°C or less at a pressure of 101.3 kPa.

4. For organic peroxides, all receptacles shall be effectively closed. Where significant internal pressure may develop in the package by the evolution of a gas, a vent may be fitted, provided the gas emitted will not cause danger; otherwise the degree of filling shall be limited. Any venting device shall be so constructed that liquid will not escape when the package is in an upright position, and it shall be able to prevent ingress of impurities. The outer packaging, if any, shall be so designed as not to interfere with the operation of the venting device.

#### **Special Packing Instructions:**

- **SP21** For certain self-reactive substances of types B or C, UN 3221, 3222, 3223, 3224, 3231, 3232, 3233 and 3234, the packagings smaller than the size which packing methods OP5 or OP6 allow respectively shall be used (see 2.2.4.5).
- SP22 UN 3241, 2-Bromo-2-nitropropane-1,3-diol, shall be packed in accordance with packing method OP6.
- **SP94** For very small amounts of energetic samples classified under UN 3223 or UN 3224:
  - Only combination packagings with outer packaging comprising boxes (steel, aluminium, metal, other than steel or aluminium, natural wood, plywood, reconstituted wood, fibreboard, expanded plastic and solid plastic boxes) are used;
  - The samples are carried in microtiter plates or multitier plates made of plastics, glass, porcelain as inner packagings;
  - The maximum amount per individual inner cavity does not exceed 0.01 g for solids or 0.01 ml for liquids;
  - The maximum net quantity per outer packaging is 20 g for solids or 20 ml for liquids, or in the case of mixed packing the sum of g and ml does not exceed 20; and
  - Dry ice or liquid nitrogen can optionally be used as a coolant for quality control measures. Interior support shall be provided to secure the inner packagings in their original positions. The inner and outer packagings shall maintain their integrity at the temperature of the refrigerant used as well as the temperatures and the pressures which could result if refrigeration were lost.

**SP95** For small amounts of energetic samples classified under UN 3223 or UN 3224:

- The outer packaging consists only of corrugated fibreboard box having minimum dimensions of 60 cm (length) by 40.5 cm (width) by 30 cm (height) and minimum wall thickness of 1.3 cm;
- The individual substance is contained in an inner packaging of glass or plastic of maximum capacity 30 ml placed in an expandable polyethylene foam matrix of at least 130 mm thickness having a density of  $18 \pm 1$  g/L;
- Within the foam carrier, inner packagings are segregated from each other by a minimum distance of 40 mm and from the wall of the outer packaging by a minimum distance of 70 mm. The package may contain up to two layers of such foam matrices, each carrying up to 28 inner packagings;
- The maximum content of each inner packaging does not exceed 1 g for solids or 1 ml for

liquids;

- The maximum net quantity per outer packaging is 56 g for solids or 56 ml for liquids, or in the case of mixed packing the sum of g and m; does not exceed 56; and
- Dry ice or liquid nitrogen can optionally be used as a coolant for quality control measures.
   Interior support shall be provided to secure the inner packagings in their original positions.
   The inner and outer packagings shall maintain their integrity at the temperature of the refrigerant used as well as the temperatures and the pressures which could result if refrigeration were lost.

**SP101** For UN 3101, 3102, 3111, 3112, 3222 & 3232, nails, staples and other closure devices made of metal without protective covering shall not penetrate to the inside of the outer packaging unless the inner packaging adequately protects the DG against contact with the metal. Inner packagings, fittings and cushioning materials and the placing of DG in packages shall be accomplished in a manner which prevents the DG from becoming loose in the outer packaging under normal conditions of handling.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

The following packagings are suitable provided that the packagings are hermatically sealed and the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Combination packagings		Maximum
Inner packagings	Outer packagings^	gross mass
[Maximum net quantity / Maximum capacity]		
Glass 1 L	Drums	
	- Steel	15 kg
- The glass inner packagings shall not be filled	- Aluminium	15 kg
to more than 90% of their capacity.	- Metal, other than steel or aluminium	15 kg
- The closure of each glass inner packaging	- Plastics	15 kg
shall be physically held in place by any means	- Plywood	15 kg
capable of preventing back-off or loosening	- Fibre	15 kg
by impact or vibration during handling.	Boxes	
- The glass inner packagings shall be	- Steel	15 kg
individually placed in metal receptacles	- Aluminium	15 kg
together with cushioning and absorbent	- Metal, other than steel or aluminium	15 kg
materials sufficient to absorb the entire	- Natural wood	15 kg
contents of the glass inner packaging(s).	- Plywood	15 kg
	- Reconstituted wood	15 kg
	- Fibreboard	15 kg
	- Solid plastics	15 kg
Metal 5 L	Drums	
Plastics 5 L	- Steel	75 kg
	- Aluminium	75 kg
- The inner packagings shall not be filled to	- Metal, other than steel or aluminium	75 kg
more than 90% of their capacity.	- Plastics	75 kg
- The closure of each inner packaging shall be	- Plywood	75 kg
physically held in place by any means capable	- Fibre	75 kg
of preventing back-off or loosening by impact	Boxes	
or vibration during handling.	- Steel	75 kg
	- Aluminium	75 kg
	- Metal, other than steel or aluminium	75 kg
	- Natural wood	75 kg
	- Plywood	75 kg
	- Reconstituted wood	75 kg
	- Fibreboard	75 kg
	- Solid plastics	75 kg

İ			
		Additional requirements:	
		The inner packagings shall be	
		individually packed with absorbent	
		materials sufficient to absorb the entire	
		contents and inert cushioning materials	
		in outer packagings.	
Drums	125 L	Drums	
	(Maximum capacity)	- Steel	
		- Plastics	
- Steel, non-rea	movable head		
- Aluminium,	non-removable head		
- Metal, other	than steel or aluminium, non-	Additional requirements:	
removable he	ead	The inner packagings shall be isolated	
- Plastics, non-	-removable head	from the outer drum by the use of inert	
		shock-mitigating cushioning material	
Composite	125 L	which surrounds the inner packaging on	
packagings	(Maximum capacity)	all sides.	
- Plastics receptacles in steel drums			
Additional requ	irements:		
The closures of inner packagings shall be of a			
screw-cap type that are physically held in place			
by any means capable of preventing back-off or			
loosening of the closure by impact or vibration			
during handling	and provided with a cap seal.		
Single packagings			
- Steel or plast	ics drums		

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

The following packagings are suitable provided that the packagings are hermatically sealed and the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Combination packagings		Maximum
Inner packagings	Outer packagings^	gross
[Maximum net quantity / Maximum capacity]		mass
Glass 1 L	Drums	
(Maximum net quantity)	- Steel	15 kg
	- Aluminium	15 kg
	- Metal, other than steel or aluminium	15 kg
- The inner packagings shall not be filled to	- Plastics	15 kg
more than 90% of their capacity.	- Plywood	15 kg
- The closure of each glass inner packaging	- Fibre	15 kg
shall be physically held in place by any	Boxes	
means capable of preventing back-off or	- Steel	15 kg
loosening by impact or vibration during	- Aluminium	15 kg
handling.	- Metal, other than steel or aluminium	15 kg
- The inner packagings shall be individually	- Natural wood	15 kg
placed in metal receptacles together with	- Plywood	15 kg
cushioning and absorbent materials	- Reconstituted wood	15 kg
sufficient to absorb the entire contents of the	- Fibreboard	15 kg
glass inner packagings.	- Solid plastics	15 kg
Metal 5 L	Drums	
Plastics 5 L	- Steel	75 kg
	- Aluminium	75 kg
- The inner packagings shall not be filled to	- Metal, other than steel or aluminium	75 kg
more than 90% of their capacity.	- Plastics	75 kg
- The closure of each inner packaging shall be	- Plywood	75 kg
physically held in place by any means	- Fibre	75 kg
capable of preventing back-off or loosening	Boxes	
by impact or vibration during handling.	- Steel	75 kg
	- Aluminium	75 kg
	- Metal, other than steel or aluminium	75 kg
	- Natural wood	75 kg
	- Plywood	75 kg
	- Reconstituted wood	75 kg
	- Fibreboard	75 kg
	- Solid plastics	75 kg

#### **Additional requirements:**

The inner packagings shall be individually packed with absorbent materials sufficient to absorb the entire contents and inert cushioning materials in outer packagings.

#### Single packagings

#### **Drums**

- Steel, non-removable head
- Aluminium, non-removable head
- Metal, other than steel or aluminium, non-removable head
- Plastics, non-removable head

The closures of drums shall be of a screw-cap type that are physically held in place by any means capable of preventing back-off or loosening of the closure by impact or vibration during handling and provided with a cap seal.

#### Composite packagings

- Plastics receptacles in steel drums
- Plastics receptacles in plastics drums

The closures of packagings shall be of a screw-cap type that are physically held in place by any means capable of preventing back-off or loosening of the closure by impact or vibration during handling and provided with a cap seal.

^ - Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

**Basic Packing Instruction** 

This instruction applies to UN 2803 and 2809.

The following packagings are suitable provided that the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Combination packagings		Maximum	
Inner packagings		Outer packagings^	net mass
[N	[Maximum net mass]		
Glass	15 kg	Drums	
Metal	15 kg	- Steel	400 kg
Rigid plastics	15 kg	- Metal, other than steel or aluminium	400 kg
		- Plastics	400 kg
		- Plywood	400 kg
		- Fibre	400 kg
		Boxes	
		- Steel	400 kg
		- Metal, other than steel or aluminium	400 kg
		- Natural wood	250 kg
		- Plywood	250 kg
		- Reconstituted wood	125 kg
		- Fibreboard	125 kg
		- Expanded plastics	60 kg
		- Solid plastics	125 kg
		Additional requirements:	
		The inner packagings shall be packed	
		with sufficient cushioning materials to	
		prevent breakages.	

#### **Additional requirements:**

For the combination packagings, either the inner packagings or the outer packagings shall have inner liners or bags of strong leakproof and puncture-resistant materials impervious to the contents and completely surrounding the contents to prevent it from escaping from the package irrespective of its position or orientation.

#### Single packagings

- Steel flasks or bottles with threaded closures with a capacity not exceeding 3 L

#### **Special Packing Instructions:**

**SP41** For UN 2803, when it is necessary to keep gallium at low temperatures in order to completely maintain it in solid state, the above packagings shall be overpacked in a strong, water-resistant

outer packaging which contains dry ice or other means of refrigeration. If a refrigerant is used, all of the above materials used in the packaging of gallium shall be chemically and physically resistant to the refrigerant and shall have impact resistance at the low temperatures of the refrigerant employed. If dry ice is used, the outer packaging shall permit the release of carbon dioxide gas.

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## **Basic Packing Instruction**

	Combinat	tion packagings	Maximum
	Inner packagings	Outer packagings^	net mass
	[Maximum capacity]		
Glass	10 L	Drums	
Plastics	10 L	- Steel	75 kg
		- Aluminium	75 kg
		- Metal, other than steel or aluminium	75 kg
		- Plastics	75 kg
		- Plywood	75 kg
		- Fibre	75 kg
		Boxes	
		- Steel	75 kg
		- Aluminium	75 kg
		- Metal, other than steel or aluminium	75 kg
		- Natural wood	75 kg
		- Plywood	75 kg
		- Reconstituted wood	75 kg
		- Fibreboard	75 kg
		- Solid plastics	75 kg
Metal	40 L	Drums	
		- Steel	125 kg
		- Aluminium	125 kg
		- Metal, other than steel or aluminium	125 kg
		- Plastics	125 kg
		- Plywood	125 kg
		- Fibre	125 kg
		Boxes	
		- Steel	125 kg
		- Aluminium	125 kg
		- Metal, other than steel or aluminium	125 kg
		- Natural wood	125 kg
		- Plywood	125 kg
		- Reconstituted wood	125 kg
		- Fibreboard	125 kg
		- Solid plastics	125 kg

Single packagings			
- Steel drums, non-removable head, with a maximum capacity of 250 L			
Composite Packagings			
	capacity		
- Glass receptacles in steel, aluminium or plywood drums	60 L		
- Glass receptacles in steel, aluminium or wood boxes	60 L		
- Glass receptacles in wickerwork hampers			
- Glass receptacles in solid plastic packagings	60 L		
Special Packing Instructions:			
SP79 For UN 1790 with more than 60% but not more than 85% hydrogen fluoride, BP001 is also			
suitable.			

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.

## Basic Packing Instruction

This instruction applies to UN 1744.

The following packagings are suitable provided that the packagings are hermatically sealed and the packing requirements at 3.2.3.2 to 3.2.3.6, if applicable, are met:

Combination packagings		
Inner packagings	Outer packagings^	gross mass
[Maximum cap acity]		
Glass 1.3 L	Drums	
	- Steel	25 kg
- The inner packagings shall not be filled to	- Aluminium	25 kg
more than 90% of their capacity.	- Metal, other than steel or aluminium	25 kg
- The closure of each inner packaging shall be	- Plastics	25 kg
physically held in place by any means capable	- Plywood	25 kg
of preventing back-off or loosening by impact	- Fibre	25 kg
or vibration during handling.	Boxes (except expanded plastics)	C
- The inner packagings shall be individually	- Steel	25 kg
packed in metal or rigid plastic receptacles	- Aluminium	25 kg
together with absorbent materials sufficient to	- Metal, other than steel or aluminium	25 kg
absorb the entire contents of the glass inner	- Natural wood	25 kg
packagings.	- Plywood	25 kg
	- Reconstituted wood	25 kg
	- Fibreboard	25 kg
	- Solid plastics	25 kg
Metal 5 L	Drums	
Polyvinylidene 5 L	- Steel	75 kg
fluoride (PVDF)	- Aluminium	75 kg
	- Metal, other than steel or aluminium	75 kg
- The inner packagings shall not be filled to	- Plastics	75 kg
more than 90% of their capacity.	- Plywood	75 kg
- The closure of each inner packaging shall be	- Fibre	75 kg
physically held in place by any means capable	Boxes	
of preventing back-off or loosening by impact	- Steel	75 kg
or vibration during handling.	- Aluminium	75 kg
	- Metal, other than steel or aluminium	75 kg
	- Natural wood	75 kg
	- Plywood	75 kg
	- Reconstituted wood	75 kg
	- Fibreboard	75 kg

	- Solid plastics	75 kg
	Additional requirements:	
	The inner packagings shall be	
	individually packed with absorbent	
	materials sufficient to absorb the entire	
	contents and inert cushioning materials.	
Drums 125 L	Drums	
(Maximum capacity)	- Steel	
- Steel, non-removable head	- Plastics	
- Aluminium, non-removable head		
- Metal, other than steel or aluminium, non-	Additional requirements:	
removable head	The inner packagings shall be isolated	
- Plastics, non-removable head	from the outer drum by the use of inert	
	shock-mitigating cushioning material	
Composite 125 L	which surrounds the inner packaging on	
packagings (Maximum capacity)	all sides.	
- Plastics receptacles in steel drums		
Additional requirements:		
The closures of inner packagings shall be of a		
screw-cap type that are physically held in place		
by any means capable of preventing back-off or		
loosening of the closure by impact or vibration		
during handling and provided with a cap seal.		
Single pack	agings	Maximum
		capacity
- Steel or plastics drums		125 kg

<sup>^ -</sup> Outer packaging is required only for the conveyance of DG exceeding GEQ or aggregate EQ, as the case may be.