

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

Creation Date 21-Jan-2011 Revision Date 20-Oct-2023 Revision Number 12

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product Description: Potassium cyanide

Cat No.: P/4600/50, P/4600/53, P/4600/70

**Synonyms** Cyanide of potassium; Hydrocyanic acid, potassium salt; KCN.

 Index No
 006-007-00-5

 CAS No
 151-50-8

 EC No
 205-792-3

 Molecular Formula
 C K N

REACH registration number 01-2119486407-29

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use**Laboratory chemicals.

Sector of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Product category PC21 - Laboratory chemicals

**Process categories** PROC15 - Use as a laboratory reagent

**Environmental release category** ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

Uses advised against No Information available

## 1.3. Details of the supplier of the safety data sheet

Company

UK entity/business name

Fisher Scientific UK

Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom

**EU entity/business name** Thermo Fisher Scientific

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

Tel: 01509 231166

Chemtrec US: (800) 424-9300 Chemtrec EU: 001-703-527-3887

# **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

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### **Physical hazards**

Substances/mixtures corrosive to metal Category 1 (H290)

#### **Health hazards**

Acute oral toxicity

Acute dermal toxicity

Acute Inhalation Toxicity - Dusts and Mists

Specific target organ toxicity - (repeated exposure)

Category 1 (H300)

Category 1 (H310)

Category 1 (H330)

Category 1 (H372)

#### **Environmental hazards**

Acute aquatic toxicity
Chronic aquatic toxicity
Category 1 (H400)
Category 1 (H410)

Full text of Hazard Statements: see section 16





**Signal Word** 

Danger

#### **Hazard Statements**

H290 - May be corrosive to metals

H372 - Causes damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

H300 + H310 + H330 - Fatal if swallowed, in contact with skin or if inhaled

EUH032 - Contact with acids liberates very toxic gas

## **Precautionary Statements**

P390 - Absorb spillage to prevent material damage

P330 - Rinse mouth

P280 - Wear protective gloves/protective clothing

P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water

P310 - Immediately call a POISON CENTER or doctor/physician

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

#### 2.3. Other hazards

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment

Toxic to terrestrial invertebrates

Toxicity to Soil Dwelling Organisms

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

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# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Potassium cyanide	151-50-8	EEC No. 205-792-3	>95	Acute Tox. 1 (H300) Acute Tox. 1 (H310) Acute Tox. 1 (H330) Acute Tox. 1 (H400) Aquatic Acute 1 (H410) Aquatic Chronic 1 (H410) STOT RE 1 (H372) Met. Corr. 1 (H290) EUH032

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Potassium cyanide	-	10	-

REACH registration number	01-2119486407-29
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Full text of Hazard Statements: see section 16

# **SECTION 4: FIRST AID MEASURES**

#### 4.1. Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

Eye Contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical

advice. Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

**Ingestion** Do NOT induce vomiting. Call a physician or poison control center immediately.

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth

method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Immediate medical attention is required.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

## 4.2. Most important symptoms and effects, both acute and delayed

. Systemic Toxicity: Respiratory disorders: Symptoms may include tightness in the chest, flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions, and shock: May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood): Exposure may result in death

#### 4.3. Indication of any immediate medical attention and special treatment needed

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Notes to Physician Treat as cyanide poisoning.

# **SECTION 5: FIREFIGHTING MEASURES**

## 5.1. Extinguishing media

## Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Powder.

#### Extinguishing media which must not be used for safety reasons

Carbon dioxide (CO<sub>2</sub>). Do not use water or foam.

### 5.2. Special hazards arising from the substance or mixture

Non-combustible. Do not allow run-off from fire-fighting to enter drains or water courses.

#### **Hazardous Combustion Products**

Nitrogen oxides (NOx), Hydrogen cyanide (hydrocyanic acid), Potassium oxides.

## 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

# **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

## 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

#### 6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

Keep in suitable, closed containers for disposal: Prevent contact with water. Do NOT use water for clean-up: Use personal protective equipment as required

#### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do

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not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep locked up. Keep away from acids. Keep away from combustible material. Do not store in aluminum containers.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Class 6.1B

#### 7.3. Specific end use(s)

Use in laboratories

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

## 8.1. Control parameters

#### **Exposure limits**

List source(s): UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. IRE - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

Component	The United Kingdom	European Union	Ireland
Potassium cyanide	STEL: 5 mg/m <sup>3</sup> 15 min	TWA: 1 mg/m <sup>3</sup> (15min)	TWA: 1 mg/m <sup>3</sup> 8 hr.
	TWA: 1 mg/m <sup>3</sup> 8 hr	STEL: 5 mg/m³ (8h)	STEL: 5 mg/m <sup>3</sup> 15 min
	Skin	Skin	Skin

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

## Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Potassium cyanide 151-50-8 ( >95 )		DNEL = 4.03mg/kg bw/day		DNEL = 0.14mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Potassium cyanide 151-50-8 ( >95 )		DNEL = 12.5mg/m <sup>3</sup>		$DNEL = 0.94 mg/m^3$

#### Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
Potassium cyanide	PNEC = 1µg/L	PNEC = 4µg/kg	PNEC = $3.2\mu g/L$	PNEC = 50µg/L	PNEC = 7µg/kg soil
151-50-8 (>95)		sediment dw			dw

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 Component
 Marine water sediment
 Marine water intermittent
 Food chain intermittent
 Air

 Potassium cyanide 151-50-8 (>95)
 PNEC = 0.2μg/L sediment dw
 PNEC = 0.8μg/kg sediment dw
 PNEC = 0.8μg/kg sediment dw
 PNEC = 0.8μg/kg sediment dw

#### 8.2. Exposure controls

#### **Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Butyl rubber	> 480 minutes	0.35 mm	EN 374 Level 3	As tested under EN374-3 Determination of
•				Resistance to Permeation by Chemicals

**Skin and body protection** Long sleeved clothing.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced **Recommended Filter type:** Particulates filter conforming to EN 143

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure

limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water

system. Local authorities should be advised if significant spillages cannot be contained.

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1. Information on basic physical and chemical properties

Physical State Powder Solid

Appearance White

Odor bitter almonds
Odor Threshold No data available
Melting Point/Range 634 °C / 1173.2 °F
Softening Point No data available

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Solid

Solid

Solid

Boiling Point/Range 1625 °C / 2957 °F

Flammability (liquid) Not applicable

Flammability (solid,gas)

Explosion Limits

No information available

No data available

Flash Point No information available Method - No information available

Autoignition TemperatureNot applicableDecomposition TemperatureNo data available

pH 11-12 20 g/l aq.sol.(20°C)

Viscosity
Not applicable
Water Solubility
400 q/L (20°C)

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor PressureNo data availableDensity / Specific Gravity1.52 @ 16°CBulk DensityNo data availableVapor DensityNot applicable

Particle characteristics No data available

9.2. Other information

Molecular Formula C K N Molecular Weight 65.12

Evaporation Rate Not applicable - Solid

# **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity

Yes Contact with acids liberates very toxic gas

10.2. Chemical stability

Moisture sensitive.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

10.4. Conditions to avoid

Excess heat. Burning produces obnoxious and toxic fumes. Incompatible products.

Exposure to light. Exposure to moist air or water. Exposure to air.

10.5. Incompatible materials

Acids. Strong oxidizing agents. Bases. Finely powdered metals. Aldehydes. Peroxides.

Metals.

10.6. Hazardous decomposition products

Nitrogen oxides (NOx). Hydrogen cyanide (hydrocyanic acid). Potassium oxides.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Product Information** 

(a) acute toxicity;

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Category 1 Oral **Dermal** Category 1 Inhalation Category 1

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium cyanide	LD50 = 7.49 mg/kg (Rat)	LD50 = 22.3 mg/kg (Rabbit)	LC50 = 0.16 mg/L (Rat) 1 h

Based on available data, the classification criteria are not met (b) skin corrosion/irritation;

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

Respiratory Skin

Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

Based on available data, the classification criteria are not met (f) carcinogenicity;

There are no known carcinogenic chemicals in this product

Based on available data, the classification criteria are not met (g) reproductive toxicity;

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Category 1

**Target Organs** Heart, Thyroid, Cardiovascular system, Central nervous system (CNS).

Not applicable (j) aspiration hazard;

Solid

delayed

Symptoms / effects,both acute and Systemic Toxicity. Respiratory disorders. Symptoms may include tightness in the chest, flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions, and shock. May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Exposure may result in

death.

11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any

known or suspected endocrine disruptors.

## **SECTION 12: ECOLOGICAL INFORMATION**

12.1. Toxicity

**Ecotoxicity effects** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment. The product contains following substances which are hazardous for the

environment.

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		 	-
Potassium cyanide	LC50: 0.31 - 0.37 mg/L, 96h static (Pimephales promelas)		
	LC50: = 0.0588 mg/L, 96h		ĺ
	flow-through (Poecilia reticulata)		ĺ
	LC50: 0.45 - 0.57 mg/L, 96h		ĺ
	flow-through (Lepomis		ĺ
	macrochirus)		İ
	LC50: = 0.45 mg/L, 96h		İ
	(Lepomis macrochirus)		İ
	LC50: 0.01 - 0.08 mg/L, 96h		İ
	static (Lepomis macrochirus)		ĺ
	LC50: 0.044 - 0.084 mg/L, 96h		ĺ
	static (Oncorhynchus mykiss)		İ
	LC50: 0.04 - 0.046 mg/L, 96h		ĺ
	flow-through (Oncorhynchus		١
	mykiss)		İ
			Ĺ

Component	Microtox	M-Factor
Potassium cyanide		10

12.2. Persistence and degradability

Soluble in water, Persistence is unlikely, based on information available. **Persistence** 

Not relevant for inorganic substances. Degradability

Degradation in sewage Contains substances known to be hazardous to the environment or not degradable in waste treatment plant

water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

12.4. Mobility in soil The product is water soluble, and may spread in water systems. Will likely be mobile in the

environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB

assessment

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not

require assessment.

12.6. Endocrine disrupting

properties

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

**Persistent Organic Pollutant Ozone Depletion Potential** 

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

## **SECTION 13: DISPOSAL CONSIDERATIONS**

# 13.1. Waste treatment methods

Waste from Residues/Unused

**Products** 

Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in

accordance with local regulations.

**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point.

**European Waste Catalogue (EWC)** According to the European Waste Catalog, Waste Codes are not product specific, but

application specific.

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Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

# **SECTION 14: TRANSPORT INFORMATION**

#### IMDG/IMO

14.1. UN number UN1680

POTASSIUM CYANIDE, SOLID 14.2. UN proper shipping name

14.3. Transport hazard class(es) 6.1 **Subsidiary Hazard Class** Ρ 14.4. Packing group I

<u>ADR</u>

UN1680 14.1. UN number

14.2. UN proper shipping name POTASSIUM CYANIDE, SOLID

14.3. Transport hazard class(es) 6.1 14.4. Packing group Ι

IATA

14.1. UN number UN1680

POTASSIUM CYANIDE, SOLID 14.2. UN proper shipping name

14.3. Transport hazard class(es) 6.1 14.4. Packing group Ι

14.5. Environmental hazards Dangerous for the environment

Product is a marine pollutant according to the criteria set by IMDG/IMO

14.6. Special precautions for user No special precautions required.

14.7. Maritime transport in bulk

according to IMO instruments

Not applicable, packaged goods

# **SECTION 15: REGULATORY INFORMATION**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **International Inventories**

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Potassium cyanide 151-50-8 205-792-3 X X KE-29092 X X	Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
	Potassium cyanide	151-50-8	205-792-3	-	ı	Х	X	KE-29092	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Potassium cyanide	151-50-8	Х	ACTIVE	X	-	X	Х	Х

Legend: X - Listed '-' - Not Listed KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

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### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous	REACH Regulation (EC 1907/2006) article 59 - Candidate List of
			Substances	Substances of Very High
				Concern (SVHC)
Potassium cyanide	151-50-8	-	Use restricted. See item	-
			75.	
			(see link for restriction	
			details)	

#### **REACH links**

https://echa.europa.eu/substances-restricted-under-reach

#### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) -	Seveso III Directive (2012/18/EC) -
		Qualifying Quantities for Major Accident	Qualifying Quantities for Safety Report
		Notification	Requirements
Potassium cyanide	151-50-8	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

#### **National Regulations**

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

**WGK Classification** See table for values

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Potassium cyanide	WGK3	

#### 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) is not required (< 10 t/y)

## **SECTION 16: OTHER INFORMATION**

Full text of H-Statements referred to under sections 2 and 3

H290 - May be corrosive to metals

H300 - Fatal if swallowed

**FSUP4600** 

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H310 - Fatal in contact with skin

H330 - Fatal if inhaled

H372 - Causes damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

EUH032 - Contact with acids liberates very toxic gas

#### Legend

**CAS** - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances **IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

Substances List

**ENCS** - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC) LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from

Ships

ATE - Acute Toxicity Estimate VOC - (Volatile Organic Compound)

## Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### **Training Advice**

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

Chemical incident response training.

21-Jan-2011 **Creation Date Revision Date** 20-Oct-2023 **Revision Summary** Not applicable.

# This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

# **End of Safety Data Sheet**