

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/4560/53, P/4560/50
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	CKN
REACH registration number	01-2119486407-29

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

Recommended Use Sector of use	Laboratory chemicals. 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

#### Potassium cyanide

#### **Physical hazards** Substances/mixtures corrosive to metal Category 1 (H290) **Health hazards** Acute oral toxicity Category 1 (H300) Acute dermal toxicity Category 1 (H310) Acute Inhalation Toxicity - Dusts and Mists Category 1 (H330) Specific target organ toxicity - (repeated exposure) Category 1 (H372) **Environmental hazards** Acute aquatic toxicity Category 1 (H400) Chronic aquatic toxicity 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

### 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) Aquatic Acute 1 (H400) 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

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			

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

Potassium cyanide

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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

#### Potassium cyanide

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) 510Class 6.1BStorage Class (LGK) (Germany)

#### 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/m <sup>3</sup> (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 = 0.94mg/m <sup>3</sup>

#### Predicted No Effect Concentration (PNEC)

See values below.

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

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Potassium cyanide 151-50-8 ( >95 )	PNEC = 0.2µg/L	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 eq Eye Protection		s (European standar	d - EN 166)			
Hand Protection	Protecti	ve gloves				
Glove material Butyl rubber	Breakthrough time > 480 minutes	Glove thickness 0.35 mm	EU standard EN 374 Level 3	Glove comments As tested under EN374-3 Determination of Resistance to Permeation by Chemicals		
Skin and body prot	ection Long sl	eeved 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 ProtectionWhen 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 and maintained properly						
Large scale/emergency	rge scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limit are exceeded or if irritation or other symptoms are experienced Recommended Filter type: Particulates filter conforming to EN 143					
Small scale/Laboratory	tory 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. <b>Recommended half mask:-</b> Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted					
Environmental exposu				low material to contaminate ground water ignificant 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

Boiling Point/Range Flammability (liquid)	1625 °C / 2957 °F Not applicable	Solid
Flammability (solid,gas)	No information available	Selid
Explosion Limits	No data available	
Flash Point	No information available	Method - No information available
Autoignition Temperature	Not applicable	
Decomposition Temperature	No data available	
pH	11-12	20 g/l ag.sol.(20°C)
Viscosity	Not applicable	Solid
Water Solubility	400 g/L (20°C)	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/wat	er)	
Vapor Pressure	No data available	
Density / Specific Gravity	1.52 @ 16°C	
Bulk Density	No data available	
Vapor Density	Not applicable	Solid
Particle characteristics	No data available	
9.2. Other information		
Molecular Formula Molecular Weight	CKN 65.12 Net capiliashla – Salid	
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 react	ions
Hazardous Polymerization Hazardous Reactions	Hazardous polymerization does not occur. 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** 

Potassium cyanide

(a) acute toxicity;

FSUP4560

Potassium cyanide

Oral	Category 1
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
(b) skin corrosion/irritation;	Based on available data, the c	classification criteria are not me	et
(c) serious eye damage/irritation;	Based on available data, the o	classification criteria are not me	et
(d) respiratory or skin sensitization; Respiratory Skin	Based on available data, the c	classification criteria are not me classification criteria are not me	
(e) germ cell mutagenicity;	Based on available data, the o	classification criteria are not me	et
(f) carcinogenicity;	Based on available data, the c	classification criteria are not me	et
	There are no known carcinoge	enic chemicals in this product	
(g) reproductive toxicity;	Based on available data, the c	classification criteria are not me	et
(h) STOT-single exposure;	Based on available data, the c	classification criteria are not me	et
(i) STOT-repeated exposure;	Category 1		
Target Organs	Heart, Thyroid, Cardiovascula	r system, Central nervous syst	em (CNS).
(j) aspiration hazard;	Not applicable Solid		
Symptoms / effects,both acute and delayed	flushing, headache, nausea, v heartbeat, abdominal pain, co	v disorders. Symptoms may incomiting, respiratory depression nvulsions, and shock. May cau ficient oxygenation of the blood	n, weakness, irregular ıse cyanosis (bluish
11.2. Information on other hazards			
Endocrine Disrupting Properties	Assess endocrine disrupting p known or suspected endocrine		is product does not contain any
SE	CTION 12: ECOLOGIC	CAL 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.

		Component	Freshwater Fish	Water Flea	Freshwater Algae
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#### Potassium cyanide

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

Component	Microtox	M-Factor
Potassium cyanide		10

12.2. Persistence and degradability Persistence Degradability Degradation in sewage treatment plant	Soluble in water, Persistence is unlikely, based on information available. Not relevant for inorganic substances. Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.
12.3. Bioaccumulative potential	Bioaccumulation is unlikely
<u>12.4. Mobility in soil</u>	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.
<u>12.6. Endocrine disrupting</u> properties Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors
12.7 Other adverse effects	

12.7. Utiler auverse erreuts	
Persistent Organic Pollutant	This product does not contain any known or suspected substance
Ozone Depletion Potential	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.

Potassium cyanide

**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

<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> Subsidiary Hazard Class <u>14.4. Packing group</u>	UN1680 POTASSIUM CYANIDE, SOLID 6.1 P I
<u>ADR</u>	
<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u>	UN1680 POTASSIUM CYANIDE, SOLID 6.1 I
IATA	
<u>14.1. UN number</u> 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group	UN1680 POTASSIUM CYANIDE, SOLID 6.1 I
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)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Potassium cyanide	151-50-8	205-792-3	-	-	Х	Х	KE-29092	Х	Х
Component	CAS No	TSCA	TSCA In notific	-	DSL	NDSL	AICS	NZIoC	PICCS
			Active-I						
Potassium cyanide	151-50-8	Х	ACT	IVE	Х	-	Х	Х	Х

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

#### 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 Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of 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) - Qualifying Quantities for Major Accident	Seveso III Directive (2012/18/EC) - 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 work .

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

#### Potassium cyanide

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 Substances List PICCS - Philippines Inventory of Chemicals and Chemical Substances ENCS - Japanese Existing and New Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances AICS - Australian Inventory of Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances NZIOC - New Zealand Inventory of Chemicals WEL - Workplace Exposure Limit TWA - Time Weighted Average IARC - International Agency for Research on Cancer ACGIH - American Conference of Governmental Industrial Hygienists **DNEL** - Derived No Effect Level Predicted No Effect Concentration (PNEC) **RPE** - Respiratory Protective Equipment LD50 - Lethal Dose 50% LC50 - Lethal Concentration 50% EC50 - Effective Concentration 50% NOEC - No Observed Effect Concentration POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative PBT - Persistent, Bioaccumulative, Toxic ADR - European Agreement Concerning the International Carriage of ICAO/IATA - International Civil Aviation Organization/International Air Dangerous Goods by Road Transport Association IMO/IMDG - International Maritime Organization/International Maritime MARPOL - International Convention for the Prevention of Pollution from **Dangerous Goods Code** Ships **OECD** - Organisation for Economic Co-operation and Development ATE - Acute Toxicity Estimate BCF - Bioconcentration factor VOC - (Volatile Organic Compound) Kev 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.

Creation Date	21-Jan-2011
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**