

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

Creation Date 25-Oct-2010

Revision Date 25-Sep-2023

**Revision Number** 8

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

# 1.1. Product identifier

Product Description: Cat No. : CAS No EC No Molecular Formula	<u>Phenothiazine</u> 130210000; 130210010; 130210250; 130212500; 130215000; 130210050 92-84-2 202-196-5 C12 H9 N S
1.2. Relevant identified uses of the	substance or mixture and uses advised against
Recommended Use Uses advised against	Laboratory chemicals. No Information available
1.3. Details of the supplier of the sa	fety data sheet
Company	<b>UK entity/business name</b> Fisher Scientific UK Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom <b>EU entity/business name</b> Thermo Fisher Scientific Janssen Pharmaceuticalaan 3a, 2440 Geel, Belgium
E-mail address	begel.sdsdesk@thermofisher.com
1.4. Emergency telephone number	For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11 Emergency Number <b>US:</b> 001-201-796-7100 / <b>Europe:</b> +32 14 57 52 99 <b>CHEMTREC</b> Tel. No. <b>US:</b> 001-800-424-9300 / <b>Europe:</b> 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

# Physical hazards

Based on available data, the classification criteria are not met

# Health hazards

Acute oral toxicity

Category 4 (H302)

#### Revision Date 25-Sep-2023

Skin Sensitization	Category 1 (H317)
Specific target organ toxicity - (repeated exposure)	Category 2 (H373)
Environmental hazards	
Acute aquatic toxicity	Category 1 (H400)
Chronic aquatic toxicity	Category 1 (H410)

Full text of Hazard Statements: see section 16



# Signal Word

Phenothiazine

Warning

# **Hazard Statements**

- H302 Harmful if swallowed
- H317 May cause an allergic skin reaction
- H373 May cause damage to organs through prolonged or repeated exposure
- H410 Very toxic to aquatic life with long lasting effects

## **Precautionary Statements**

- P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P312 Call a POISON CENTER or doctor if you feel unwell
- P280 Wear protective gloves/protective clothing
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention

# 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

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
Phenothiazine	92-84-2	EEC No. 202-196-5	>95	Acute tox. 4 (H302) Skin Sens. 1 (H317) STOT RE 2 (H373) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400)
Diphenylamine	122-39-4	EEC No. 204-539-4	<0.4	Acute Tox. 3 (H301) Acute Tox. 3 (H311)

# Phenothiazine

### Revision Date 25-Sep-2023

	Acute Tox. 3 (H331) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
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Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Phenothiazine	-	1 (acute)	-
		10 (Chronic)	
Diphenylamine	-	1	-

Components	Reach Registration Number	
Phenothiazine	01-2119488529-19	

#### Full text of Hazard Statements: see section 16

# **SECTION 4: FIRST AID MEASURES**

# 4.1. Description of first aid measures

General Advice	If symptoms persist, call a physician.	
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.	
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.	
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.	
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.	
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		

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

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

Notes to Physician Treat symptomatically.

# **SECTION 5: FIREFIGHTING MEASURES**

# 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

**Extinguishing media which must not be used for safety reasons** No information available.

# 5.2. Special hazards arising from the substance or mixture

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

### **Hazardous Combustion Products**

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulfur 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.

# 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.

#### 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. Keep in suitable, closed containers for disposal.

#### 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

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

#### **Hygiene Measures**

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

Technical Rules for Hazardous Substances (TRGS) 510 Class 11 Storage 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

Component	The United Kingdom	European Union	Ireland
Phenothiazine			: 5 ppm 8 hr.
			STEL: 15 mg/m <sup>3</sup> 15 min
Diphenylamine	STEL: 20 mg/m <sup>3</sup> 15 min		TWA: 10 mg/m <sup>3</sup> 8 hr.
	TWA: 10 mg/m <sup>3</sup> 8 hr		STEL: 20 mg/m <sup>3</sup> 15 min

#### 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)

Workers; See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Phenothiazine 92-84-2 (>95)				DNEL = 0.15mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Phenothiazine 92-84-2 ( >95 )		DNEL = 1.59mg/m <sup>3</sup>		DNEL = 0.53mg/m <sup>3</sup>

## Predicted No Effect Concentration (PNEC)

See values below.

# 8.2. Exposure controls

# Engineering Measures

Ensure adequate ventilation, especially in confined areas. 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		(European standard	I - EN 166)	
Hand Protection	Protectiv	ve gloves		
Glove material Nitrile rubber Neoprene Natural rubber PVC	Breakthrough time See manufacturers recommendations	Glove thickness	EU standard EN 374	Glove comments (minimum requirement)

Long sleeved clothing.

Skin and body protection

Inspect gloves before use.

# Phenothiazine

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 <b>Recommended Filter type:</b> 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. <b>Recommended half mask:-</b> 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	Solid	
Appearance Odor Odor Threshold Melting Point/Range Softening Point Boiling Point/Range Flammability (liquid) Flammability (solid,gas) Explosion Limits	Yellow Slight No data available 185 °C / 365 °F No data available 371 °C / 699.8 °F Not applicable No information available No data available	Solid
Flash Point Autoignition Temperature	> 100 °C / > 212 °F 397 °C / 746.6 °F	Method - No information available
Decomposition Temperature	> 250°C	
pH	No information available 6,0 @ 20°C	: (10 g/l ag sol)
Viscosity	Not applicable	Solid
Water Solubility	2 mg/L (25°C)	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/wate	er)	
Component	log Pow	
Phenothiazine	3.78	
Diphenylamine	3.4	
Vapor Pressure	No data available	
Density / Specific Gravity	No data available	
Bulk Density	No data available	
Vapor Density	Not applicable	Solid
Particle characteristics	No data available	
9.2. Other information		
Molecular Formula	C12 H9 N S	

Phenothiazine

Molecular Weight Evaporation Rate 199.28 Not applicable - Solid

# **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity	None known, based on information available
10.2. Chemical stability	Air sensitive. Light 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	Exposure to air. Exposure to light. Incompatible products.
10.5. Incompatible materials	Strong oxidizing agents. Strong acids.

# 10.6. Hazardous decomposition products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2). Sulfur oxides.

# **SECTION 11: TOXICOLOGICAL INFORMATION**

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

# **Product Information**

(a) acute toxicity;

OralCategory 4DermalBased on available data, the classification criteria are not metInhalationBased on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phenothiazine	LD50 = 5000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	>5 mg/L/4h (Rat)
Diphenylamine	LD50 = 1120 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	-

 (b) skin corrosion/irritation; No data available
 (c) serious eye damage/irritation; No data available
 (d) respiratory or skin sensitization; Respiratory Skin
 No data available Category 1 May cause sensitization by skin contact
 (e) germ cell mutagenicity; Not mutagenic in AMES Test

Phenothiazine

(f) carcinogenicity;

No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	EU	UK	Germany	IARC				
Diphenylamine				Group 2B				
(g) reproductive toxicity;	No data available							
(h) STOT-single exposure;	No data available	)						
(i) STOT-repeated exposure:	Category 2							
(i) STOT-repeated exposure;	Calegory 2	alegoly 2						
Target Organs	Blood, Bone mar	row, Kidney, spleen, Live	er.					
(j) aspiration hazard;	Not applicable Solid							
Symptoms / effects,both acute an delayed	, i	5	e rash, itching, swelling, t dedness, chest pain, mus	0, 0 0				
11.2. Information on other hazard	<u>S</u>							

**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.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Phenothiazine	LC50: = 1.1 mg/L, 48h (Oryzias	EC50: 0.154 mg/L, 48h	
	latipes)	(Daphnia)	
	LC50: = 0.579 mg/L, 96h		
	(Oncorhynchus mykiss)		
Diphenylamine	LC50: 3.47 - 4.14 mg/L, 96h flow-through (Pimephales promelas)	EC50: 1.69 - 2.46 mg/L, 48h (Daphnia magna)	EC50: = 1.5 mg/L, 72h (Scenedesmus subspicatus)

Component	Microtox	M-Factor
Phenothiazine		1 (acute)
		10 (Chronic)
Diphenylamine	EC50 = 2.81 mg/L 5 min	1
	EC50 = 3.46 mg/L 15 min	
	EC50 = 4.77 mg/L 30 min	

12.2. Persistence and degradability Not readily biodegradable

Persistence Degradation in sewage treatment plant Not readily biodegradable May persist.

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

# Phenothiazine

## 12.3. Bioaccumulative potential

Product has a high potential to bioconcentrate

Component	log Pow	Bioconcentration factor (BCF)		
Phenothiazine	3.78	127 - 660 dimensionless		
Diphenylamine	3.4	51 - 253 dimensionless		
<u>12.4. Mobility in soil</u>	Is not likely mobile in the environment due its soil particles	low water solubility and propensity to bind to		
<u>12.5. Results of PBT and vPvB</u> assessment	Substance is not considered persistent, bioact and very bioaccumulative (vPvB).	cumulative and toxic (PBT) / very persistent		
<u>12.6. Endocrine disrupting</u> properties Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors			
<u>12.7. Other adverse effects</u> Persistent Organic Pollutant Ozone Depletion Potential	This product does not contain any known or s This product does not contain any known or s	•		

# **SECTION 13: DISPOSAL CONSIDERATIONS**

# 13.1. Waste treatment methods

Waste from Residues/Unused Products	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. Should not be released into the environment.
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.
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	UN3077
14.2. UN proper shipping name	Environmentally hazardous substances, solid, n.o.s.
Technical Shipping Name	Phenothiazine, Diphenylamine
14.3. Transport hazard class(es)	9
14.4. Packing group	III

# <u>ADR</u>

14.1. UN number

14.2. UN proper shipping name Technical Shipping Name UN3077 Environmentally hazardous substances, solid, n.o.s. Phenothiazine, Diphenylamine

Phenothiazine

14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.4. Packing group	m

IATA

<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> Technical Shipping Name <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u>	UN3077 Environmentally hazardous substances, solid, n.o.s. Phenothiazine, Diphenylamine 9 III
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
Phenothiazine	92-84-2	202-196-5	-	-	X	Х	KE-28250	Х	Х
Diphenylamine	122-39-4	204-539-4	-	-	X	Х	KE-28303	Х	Х
Component	CAS No	TSCA	notific	ventory ation - Inactive	DSL	NDSL	AICS	NZIoC	PICCS

			Active-Inactive					
Phenothiazine	92-84-2	Х	ACTIVE	Х	-	Х	Х	X
Diphenylamine	122-39-4	Х	ACTIVE	Х	-	Х	Х	X

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 Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Phenothiazine	92-84-2	-	Use restricted. See item 75. (see link for restriction details)	-
Diphenylamine	122-39-4	-	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 Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Phenothiazine	92-84-2	Not applicable	Not applicable
Diphenylamine	122-39-4	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

Component	ANNEX I - PART 1 List of chemicals subject to export notification procedure (referred to in Article 8)	ANNEX I - PART 2 List of chemicals qualifying for PIC notification (referred to in Article 11)	ANNEX I - PART 3 List of chemicals subject to the PIC procedure (referred to in Articles 13 and 14)
Diphenylamine 122-39-4(<0.4)	<ul> <li>p(1) — pesticide in the group of plant protection products</li> <li>b — ban (for the category or categories concerned)</li> </ul>	b — ban (for the category or categories concerned) p — pesticides	-
	<ul> <li>b — ban (for the category or categories concerned)</li> </ul>		

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0649&qid=1604065742303.

### 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 .

### 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
Phenothiazine	WGK3	
Diphenylamine	WGK3	Class I : 20 mg/m <sup>3</sup> (Massenkonzentration)

Component	France - INRS (Tables of occupational diseases)
Phenothiazine	Tableaux des maladies professionnelles (TMP) - RG 65
Diphenylamine	Tableaux des maladies professionnelles (TMP) - RG 15,RG 15bis

Component	Reduction of Risk from handling of hazardous substances preparation (SR 814.81)		Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Diphenylamine 122-39-4(<0.4)	Prohibited and Restricted Substances		

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

# **SECTION 16: OTHER INFORMATION**

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

H302 - Harmful if swallowed

- H317 May cause an allergic skin reaction
- H373 May cause damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

- H410 Very toxic to aquatic life with long lasting effects
- H301 Toxic if swallowed
- H311 Toxic in contact with skin
- H331 Toxic if inhaled

# Legend

CAS - Chemical Abstracts Service EINECS/ELINCS - European Inventory of Existing Commercial Chemical 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	<ul> <li>TSCA - United States Toxic Substances Control Act Section 8(b) Inventory</li> <li>al DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List</li> <li>ENCS - Japanese Existing and New Chemical Substances</li> <li>AICS - Australian Inventory of Chemical Substances</li> <li>NZIOC - New Zealand Inventory of Chemicals</li> </ul>
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	<ul> <li>TWA - Time Weighted Average</li> <li>IARC - International Agency for Research on Cancer</li> <li>Predicted No Effect Concentration (PNEC)</li> <li>LD50 - Lethal Dose 50%</li> <li>EC50 - Effective Concentration 50%</li> <li>POW - Partition coefficient Octanol:Water</li> <li>vPvB - very Persistent, very Bioaccumulative</li> </ul>
ADR - European Agreement Concerning the International Carriage of	ICAO/IATA - International Civil Aviation Organization/International Air

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

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**

Chemical incident response training.

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Ships

Transport Association

ATE - Acute Toxicity Estimate

VOC - (Volatile Organic Compound)

MARPOL - International Convention for the Prevention of Pollution from

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

First aid for chemical exposure, including the use of eye wash and safety showers.

Creation Date	25-Oct-2010
Revision Date	25-Sep-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**