

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

Creation Date 13-Nov-2009 Revision Date 22-Sep-2023 Revision Number 11

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

1.1. Product identifier

Product Description: Cobalt(II) chloride hexahydrate

Cat No. : 192090000; 192090010; 192091000; 192092500

Synonyms Cobalt muriate hexahydrate; Cobaltous chloride hexahydrate

CAS No 7791-13-1

Molecular Formula CI2 Co . 6 H2 O

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

Recommended Use Laboratory chemicals.
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

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**: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)

Cobalt(II) chloride hexahydrate

Acute Inhalation Toxicity - Dusts and Mists

Respiratory Sensitization

Skin Sensitization

Category 1 (H334)

Category 1 (H317)

Germ Cell Mutagenicity

Carcinogenicity

Carcinogenicity

Category 2 (H341)

Category 1B (H350i)

Reproductive Toxicity

Category 1B (H360F)

Environmental hazards

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

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

Hazard Statements

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H341 - Suspected of causing genetic defects

H350i - May cause cancer by inhalation

H360F - May damage fertility

H410 - Very toxic to aquatic life with long lasting effects

H302 + H332 - Harmful if swallowed or if inhaled

Precautionary Statements

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P312 - Call a POISON CENTER or doctor if you feel unwell

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

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Additional EU labelling

Restricted to professional users

2.3. Other hazards

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

ACR19209

Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Cobalt(II) chloride hexahydrate	7791-13-1		>95	Acute Tox. 4 (H302) Acute Tox. 4 (H332)

				GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Cobalt(II) chloride hexahydrate	7791-13-1		>95	Acute Tox. 4 (H302)
				Acute Tox. 4 (H332)
			Resp. Sens. 1 (H334)	
				Skin Sens. 1 (H317)
				Muta. 2 (H341)
				Carc. 1B (H350i)
				Repr. 1B (H360F)
				Aquatic Acute 1 (H400)
				Aquatic Chronic 1 (H410)
Cobalt(II) chloride	7646-79-9	EEC No. 231-589-4	-	Acute Tox. 4 (H302)
				Acute Tox. 4 (H332)
				Eye Dam. 1 (H318)
				Resp. Sens. 1 (H334)
				Skin Sens. 1 (H317)
				Muta. 2 (H341)
				Carc. 1B (H350i)
				Repr. 1B (H360F)
				Aquatic Acute 1 (H400)
				Aquatic Chronic 1 (H410)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Cobalt(II) chloride	Carc. 1B (H350i) :: C>=0.01%	10	-

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

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

advice.

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.

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

> 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

None reasonably foreseeable. May cause allergy or asthma symptoms or breathing difficulties if inhaled. 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

May cause sensitization of susceptible persons. Use of epinephrine may be indicated.

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

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Cobalt oxides, Hydrogen chloride gas.

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

Use personal protective equipment as required. Avoid dust formation. Ensure adequate ventilation. 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. Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

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

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

Cobalt(II) chloride hexahydrate

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 containers tightly closed in a dry, cool and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 Class 6.1D 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.

Component	The United Kingdom	European Union	Ireland
Cobalt(II) chloride hexahydrate	STEL: 0.3 mg/m ³ 15 min		
	TWA: 0.1 mg/m ³ 8 hr		
	Resp. Sens.		
Cobalt(II) chloride	Capable of causing cancer		
	and/or heritable genetic		
	damage		
	TWA: 0.1 mg/m³ (As Co)		
	STEL: 0.3 mg/m ³ (As Co)		

Biological limit values

List source(s):

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

No information available

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering Measures

Use only under a chemical fume hood. 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

Cobalt(II) chloride hexahydrate

control hazardous materials at source

Personal protective equipment

Eye Protection Goggles (European standard - EN 166)

Hand Protection Protective gloves

Glove m	naterial Breakthroug	gh time Glove thickne	ess EU standard	Glove comments
Natural	rubber See manufa	cturers -	EN 374	(minimum requirement)
Nitrile r	ubber recommend	lations		
Neop	rene			
PV	С			

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
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.

Solid

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Solid Crystalline

Appearance Reddish violet

Odor Odorless

Odor Threshold
Melting Point/Range
Softening Point
Boiling Point/Range
No data available
No information available

Flammability (liquid) Not applicable

Flammability (solid,gas)

No information available

Explosion Limits No data available

Flash Point No information available Method - No information available

Autoignition Temperature No data available

Decomposition Temperature 400 °C

pH 4.6 50 g/l aq.solViscosity Not applicable Solid

Viscosity Not applicable Solid Water Solubility 970 g/L (20°C)

Cobalt(II) chloride hexahydrate

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component log Pow
Cobalt(II) chloride 0.85
Vapor Pressure negligible
Density / Specific Gravity No data available
Bulk Density 1.92 g/cm3

Vapor Density

Not applicable

Particle characteristics No data available

9.2. Other information

Molecular Formula CI2 Co . 6 H2 O

Molecular Weight 237.93

Evaporation Rate Not applicable - Solid

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous PolymerizationNo information available.Hazardous ReactionsNone under normal processing.

10.4. Conditions to avoid

Avoid dust formation. Incompatible products. Exposure to moisture. Excess heat.

Solid

10.5. Incompatible materials

Strong oxidizing agents. Metals.

10.6. Hazardous decomposition products

Cobalt oxides. Hydrogen chloride gas.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

Oral Category 4

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

Inhalation Category 4

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation		
Cobalt(II) chloride hexahydrate	766 mg/kg (Rat)	-	-		
Cobalt(II) chloride	586 mg/kg (Rat)	-	-		

(b) skin corrosion/irritation; No data available

ACR19209

Cobalt(II) chloride hexahydrate

Revision Date 22-Sep-2023

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory Category 1 Skin Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity; Category 2

Mutagenic effects have occurred in humans; Possible risk of irreversible effects

(f) carcinogenicity; Category 1B

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

Component	EU	UK	Germany	IARC
Cobalt(II) chloride hexahydrate				Group 2B
Cobalt(II) chloride	Carc Cat. 1B			Group 2B

(g) reproductive toxicity; Category 1B

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals. May impair

fertility.

Developmental Effects

Developmental effects have occurred in experimental animals. Teratogenic effects have occurred in experimental animals. **Teratogenicity**

No data available (h) STOT-single exposure;

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; Not applicable

Solid

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.

delayed

Symptoms / effects, both acute and 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.

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. May cause long-term adverse effects in the environment. Do not allow

material to contaminate ground water system.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Cobalt(II) chloride	Cyprinus carpio: LC50=0.33	1.1-1.6 mg/L 48h	

Cobalt(II) chloride hexahydrate

Revision Date 22-Sep-2023

mg/L 96h	

Component	Microtox	M-Factor
Cobalt(II) chloride hexahydrate	= 16 mg/L EC50 Photobacterium phosphoreum 15	
	min as Co++	
	= 160 mg/L EC50 Photobacterium phosphoreum 5	
	min as Co++	
	= 2.8 mg/L EC50 Photobacterium phosphoreum 30	
	min as Co++	
Cobalt(II) chloride		10

12.2. Persistence and degradability Product contains heavy metals. Discharge into the environment must be avoided. Special

pre-treatment is necessary

Persistence Degradability based on information available, May persist. Not relevant for inorganic substances.

Degradation in sewage

treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants.

12.3. Bioaccumulative potential

May have some potential to bioaccumulate

Component	log Pow	Bioconcentration factor (BCF)
Cobalt(II) chloride	0.85	No data available

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

No data available for 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.

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

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 Cobalt (II) chloride

14.3. Transport hazard class(es) 14.4. Packing group Ш

ADR

14.1. UN number UN3077

14.2. UN proper shipping name Environmentally hazardous substances, solid, n.o.s.

Technical Shipping Name Cobalt (II) chloride

14.3. Transport hazard class(es) 14.4. Packing group Ш

IATA

UN3077 14.1. UN number

Environmentally hazardous substances, solid, n.o.s. 14.2. UN proper shipping name

Technical Shipping Name Cobalt (II) chloride

14.3. Transport hazard class(es) 14.4. Packing group Ш

14.5. Environmental hazards Dangerous for the environment

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

No special precautions required. 14.6. Special precautions for user

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
Cobalt(II) chloride hexahydrate	7791-13-1	-	ı	1	X	X	-	-	-
Cobalt(II) chloride	7646-79-9	231-589-4	-	-	Х	Х	KE-06095	Х	Х

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Cobalt(II) chloride hexahydrate	7791-13-1	-	-	-	-	X	Х	X
Cobalt(II) chloride	7646-79-9	Х	ACTIVE	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

Cobalt(II) chloride hexahydrate

Revision Date 22-Sep-2023

	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)
Ī	Cobalt(II) chloride hexahydrate	7791-13-1	-	-	-
-	Cobalt(II) chloride	7646-79-9	-	Use restricted. See item 28. (see link for restriction details) Use restricted. See item 30. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	SVHC Candidate list - 231-589-4 - Carcinogenic, Article 57a;Toxic for reproduction, Article 57c

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

REACH links

https://echa.europa.eu/authorisation-list https://echa.europa.eu/substances-restricted-under-reach https://echa.europa.eu/candidate-list-table

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
	Cobalt(II) chloride hexahydrate	7791-13-1	Not applicable	Not applicable
Ī	Cobalt(II) chloride	7646-79-9	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 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

Take note of Dir 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations

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		
Cobalt(II) chloride	WGK3			

Component	France - INRS (Tables of occupational diseases)	
Cobalt(II) chloride	Tableaux des maladies professionnelles (TMP) - RG 65,RG 70	

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

H332 - Harmful if inhaled

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H350 - May cause cancer

H341 - Suspected of causing genetic defects

H350i - May cause cancer by inhalation

H360F - May damage fertility

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

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

Chemical incident response training.

Creation Date13-Nov-2009Revision Date22-Sep-2023Revision SummaryNot 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