

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

Creation Date 17-Nov-2009 Revision Date 21-Sep-2023 Revision Number 8

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

1.1. Product identifier

 Product Description:
 N,N,",N"-Tetramethyl-1,6-hexanediamine

 Cat No. :
 147490000; 147490010; 147490250; 147492500

Synonyms 1,6-Bis(dimethylamino)hexane; 1,6-Hexanediamine, N,N,N',N'-tetramethyl-;

Hexamethyleneb

 CAS No
 111-18-2

 EC No
 203-842-9

 Molecular Formula
 C10 H24 N2

 REACH registration number
 01-2119980969-10

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

Recommended UseLaboratory 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

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

N,N,N",N"-Tetramethyl-1,6-hexanediamine

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Based on available data, the classification criteria are not met

Health hazards

Acute oral toxicity

Acute dermal toxicity

Acute Inhalation Toxicity - Vapors

Skin Corrosion/Irritation

Serious Eye Damage/Eye Irritation

Category 3 (H301)

Category 3 (H311)

Category 3 (H331)

Category 1 A (H314)

Category 1 (H318)

Environmental hazards

Chronic aquatic toxicity Category 2 (H411)

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

Hazard Statements

H314 - Causes severe skin burns and eye damage

H411 - Toxic to aquatic life with long lasting effects

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled

Combustible liquid

Precautionary Statements

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

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

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

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

P273 - Avoid release to the environment

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

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Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
N,N,N',N'-Tetramethyl-1,6-hexanediamine	111-18-2	EEC No. 203-842-9	>95	Skin Corr. 1A (H314) Eye Dam. 1 (H318) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Aquatic chronic 2 (H411)

REACH registration number	01-2119980969-10
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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 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.

InhalationDo 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. Remove to fresh air. Immediate medical attention is

required. If not breathing, give artificial respiration.

Self-Protection of the First Aider Use personal protective equipment as required.

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

Difficulty in breathing. Causes burns by all exposure routes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe

damage to the delicate tissue and danger of perforation

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. Water mist may be used to cool closed containers.

N,N,N",N"-Tetramethyl-1,6-hexanediamine

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Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Combustible material. Containers may explode when heated.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NOx), Thermal decomposition can lead to release of irritating gases and vapors.

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. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition.

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

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe mist/vapors/spray. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Keep away from heat, sparks and flame.

Technical Rules for Hazardous Substances (TRGS) 510 Class 6.1C Storage Class (LGK) (Germany)

7.3. Specific end use(s)

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Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

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

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)
N,N,N',N'-Tetramethyl-1,6-hexa				DNEL = 0.32mg/kg
nediamine				bw/day
111-18-2 (>95)				·

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
N,N,N',N'-Tetramethyl-1,6-hexa				$DNEL = 1.11 mg/m^3$
nediamine				-
111-18-2 (>95)				

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
N,N,N',N'-Tetramethyl-1,6-	PNEC =	PNEC =	PNEC =	PNEC = 6.4mg/L	PNEC =
hexanediamine	0.0172mg/L	0.116mg/kg	0.0694mg/L		0.0131mg/kg soil
111-18-2 (>95)		sediment dw	-		dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
N,N,N',N'-Tetramethyl-1,6-	PNEC =	PNEC =			
hexanediamine	0.00172mg/L	0.0116mg/kg			
111-18-2 (>95)	-	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. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas.

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 control to the process of properly designed ventilation systems, should be adopted to

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

N,N,N",N"-Tetramethyl-1,6-hexanediamine

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

Hand Protection Protective gloves

Breakthrough time Glove thickness EU standard Glove comments Glove material EN 374 Neoprene See manufacturers (minimum requirement)

recommendations

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

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and maintained properly

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

are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Inorganic gases and vapours filter Type B Grey Ammonia and

organic ammonia derivatives filter Type K Green conforming to EN14387

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:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN

Method - CC (closed cup)

100 g/l water

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Liquid

Appearance Clear Odor Odorless

No data available **Odor Threshold Melting Point/Range** -46 °C / -50.8 °F **Softening Point** No data available

Boiling Point/Range 209 - 210 °C / 408.2 - 410 °F

Flammability (liquid) Combustible liquid On basis of test data

Flammability (solid,gas) Not applicable Liquid

Explosion Limits Lower 0.8 vol%

Upper 5.2 vol%

73 °C / 163.4 °F **Flash Point**

180 °C / 356 °F **Autoignition Temperature Decomposition Temperature** No data available

12.5 Ha

Viscosity 1.72 mPa.s at 20 °C

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

N,N,N",N"-Tetramethyl-1,6-hexanediamine

Component log Pow N,N,N',N'-Tetramethyl-1,6-hexanediam 1.99

ine

Vapor Pressure <0.1 mbar @ 20 °C

Density / Specific Gravity 0.806

Bulk DensityNot applicableLiquidVapor Density5.94(Air = 1.0)

Particle characteristics Not applicable (liquid)

9.2. Other information

Molecular FormulaC10 H24 N2Molecular Weight172.31

Explosive Properties explosive air/vapour mixtures possible

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 Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

10.4. Conditions to avoid

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and

sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

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

decomposition can lead to release of irritating gases and vapors.

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 3
Dermal Category 3
Inhalation Category 3

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
N,N,N',N'-Tetramethyl-1,6-hexanediamine	LD50 = 297 μL/kg(Rat)	LD50 > 400 mg/kg (Rabbit) LD50 = 400 mg/kg (Rabbit)	LC50 > 0.41 mg/L (Rat) 4 h

(b) skin corrosion/irritation; Category 1 A

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(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

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

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

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

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

None known. **Target Organs**

Based on available data, the classification criteria are not met (j) aspiration hazard;

Other Adverse Effects The toxicological properties have not been fully investigated.

delayed

Symptoms / effects, both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

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 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
N,N,N',N'-Tetramethyl-1,6-hexanediamine	LC50: = 75 mg/L, 96h static (Cyprinus carpio)	EC50 = 6.94 mg/L/48h	

12.2. Persistence and degradability Not readily biodegradable

Persistence Persistence is unlikely.

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

treatment plant water treatment plants.

N,N,N",N"-Tetramethyl-1,6-hexanediamine

12.3. Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
N,N,N',N'-Tetramethyl-1,6-hexanediamine	1.99	39.7

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

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

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and very bioaccumulative (vPvB).

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

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

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.

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. Large amounts will affect pH and harm aquatic organisms. Solutions with high pH-value must be neutralized

before discharge. Do not let this chemical enter the environment.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN2922

14.2. UN proper shipping name Corrosive liquid, toxic, n.o.s.

Technical Shipping Name N,N,N',N'-Tetramethyl-1,6-hexanediamine

14.3. Transport hazard class(es) 8
Subsidiary Hazard Class 6.1
14.4. Packing group I

ADR

14.1. UN number UN2922

14.2. UN proper shipping name Corrosive liquid, toxic, n.o.s.

N,N,N",N"-Tetramethyl-1,6-hexanediamine

Technical Shipping Name N,N,N',N'-Tetramethyl-1,6-hexanediamine

14.3. Transport hazard class(es)8Subsidiary Hazard Class6.114.4. Packing groupI

<u>IATA</u>

14.1. UN number UN2922

14.2. UN proper shipping name Corrosive liquid, toxic, n.o.s.

Technical Shipping Name N,N,N',N'-Tetramethyl-1,6-hexanediamine

14.3. Transport hazard class(es)8Subsidiary Hazard Class6.114.4. Packing groupI

<u>14.5. Environmental hazards</u> 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
N,N,N',N'-Tetramethyl-1,6-hexane	111-18-2	203-842-9	-	-	Х	X	KE-33603	X	X
diamine									

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
N,N,N',N'-Tetramethyl-1,6-hexane diamine	111-18-2	X	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 Not applicable

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)
N,N,N',N'-Tetramethyl-1,6-hexanedi amine	111-18-2	-	-	- ,

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
N,N,N',N'-Tetramethyl-1,6-h exanediamine	111-18-2	Not applicable	Not applicable

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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 .

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
N,N,N',N'-Tetramethyl-1,6-hexan	WGK3	
ediamine		

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

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H331 - Toxic if inhaled

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H411 - 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

Substances List

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

ENCS - Japanese Existing and New 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

ACGIH - American Conference of Governmental Industrial Hygienists

IARC - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC)

DNEL - Derived No Effect Level RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

LD50 - Lethal Dose 50%

NOEC - No Observed Effect Concentration

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water

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N,N,N",N"-Tetramethyl-1,6-hexanediamine

PBT - Persistent, Bioaccumulative, Toxic

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air

MARPOL - International Convention for the Prevention of Pollution from

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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

Ships

Transport Association

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 Date17-Nov-2009Revision Date21-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