

according to Regulation (EC) No. 1907/2006

Creation Date 18-Oct-2010 Revision Date 22-Mar-2024 Revision Number 3

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

#### 1.1. Product identifier

Product Description: Tellurium lumps/pieces 99.999%

Cat No. : R40073 Synonyms Telloy

 Index No
 052-001-00-0

 CAS No
 13494-80-9

 EC No
 236-813-4

 Molecular Formula
 Te

Molecular Formula Te REACH registration number -

# 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

Thermo Fisher (Kandel) GmbH

Erlenbachweg 2, 76870 Kandel, Germany

Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300

**Swiss distributor -** Fisher Scientific AG Neuhofstrasse 11, CH 4153 Reinach

Tel: +41 (0) 56 618 41 11

https://www.fishersci.ch/ch/en/customer-help-

support/forms/email-us.html

**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

customers in Switzerland:

Tox Info Suisse Emergency Number: 145 (24hr)

Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)

Chemtrec (24h) Toll-Free: 0800 564 402 Chemtrec Local: +41-43 508 20 11 (Zurich)

# **SECTION 2: HAZARDS IDENTIFICATION**

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

#### Tellurium lumps/pieces 99.999%

Revision Date 22-Mar-2024

Page 2/12

#### CLP Classification - Regulation (EC) No 1272/2008

## **Physical hazards**

Based on available data, the classification criteria are not met

#### **Health hazards**

Acute Inhalation Toxicity - Dusts and Mists

Skin Sensitization Reproductive Toxicity

Effects on or via lactation

Category 4 (H332)

Category 1 Sub-category 1B (H317)

Category 1B (H360Df)

(H362)

#### **Environmental hazards**

Chronic aquatic toxicity

Category 4 (H413)

Full text of Hazard Statements: see section 16

#### 2.2. Label elements



# Signal Word

# Danger

#### **Hazard Statements**

H332 - Harmful if inhaled

H317 - May cause an allergic skin reaction

H360Df - May damage the unborn child. Suspected of damaging fertility

H362 - May cause harm to breast-fed children

H413 - May cause long lasting harmful effects to aquatic life

# **Precautionary Statements**

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

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

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

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

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

#### Additional EU labelling

Restricted to professional users

#### 2.3. Other hazards

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment This product does not contain any known or suspected endocrine disruptors

Toxic to terrestrial vertebrates

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

#### 3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Tellurium	13494-80-9	EEC No. 236-813-4	>95	Acute Tox. 4 (H332) Skin Sens. 1B (H317) Repr. 1B (H360Df) Lact. (H362) Aquatic Chronic 4 (H413)

REACH registration number

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

Thermal decomposition can lead to release of irritating gases and vapors.

#### **Hazardous Combustion Products**

None under normal use conditions.

#### 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

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. 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. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Ensure adequate ventilation. Avoid ingestion and inhalation.

#### **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.

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

Storage Class/LGK 6.1D

Switzerland - Storage of hazardous substances

Storage class - SC 6.1

https://www.kvu.ch/de/themen/stoffe-und-produkte https://www.kvu.ch/fr/themes/substances-et-produits https://www.kvu.ch/it/temi/sostanze-e-prodotti

# 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, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Tellurium		STEL: 0.3 mg/m <sup>3</sup> 15 min	TWA / VME: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> 8 uren	TWA / VLA-ED: 0.1
		TWA: 0.1 mg/m <sup>3</sup> 8 hr	(8 heures).	-	mg/m³ (8 horas)
Component	Italy	Germany	Portugal	The Netherlands	Finland
Tellurium			TWA: 0.1 mg/m <sup>3</sup> 8 horas		TWA: 0.1 mg/m <sup>3</sup> 8
					tunteina
					STEL: 0.3 mg/m <sup>3</sup> 15
					minuutteina
Component	Austria	Denmark	Switzerland	Poland	Norway
Tellurium	MAK-KZGW: 0.5 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> 8 timer	STEL: 0.2 mg/m <sup>3</sup> 15	STEL: 0.03 mg/m <sup>3</sup> 15	TWA: 0.1 mg/m <sup>3</sup> 8 time
reliantam	15 Minuten	STEL: 0.2 mg/m <sup>3</sup> 15	Minuten	minutach	STEL: 0.3 mg/m <sup>3</sup> 15
	MAK-TMW: 0.1 mg/m <sup>3</sup> 8	minutter	TWA: 0.1 mg/m <sup>3</sup> 8	TWA: 0.01 mg/m <sup>3</sup> 8	minutter. value
	Stunden	mindator	Stunden	godzinach	calculated
	- Ctantaon		Otaliaon.	godzilladil	- Carouratou
Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Tellurium	TWA: 0.1 mg/m <sup>3</sup>	TWA-GVI: 0.1 mg/m <sup>3</sup> 8	TWA: 0.1 mg/m <sup>3</sup> 8 hr.		TWA: 0.1 mg/m <sup>3</sup> 8
		satima.	Te		hodinách. respirable
			STEL: 0.3 mg/m <sup>3</sup> 15 min		fraction of aerosol
					Ceiling: 0.5 mg/m <sup>3</sup>
Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Tellurium	TWA: 0.1 mg/m <sup>3</sup> 8		TWA: 0.1 mg/m <sup>3</sup>		TWA: 0.1 mg/m <sup>3</sup> 8
	tundides.				klukkustundum.
					powder
					Ceiling: 0.2 mg/m <sup>3</sup>
					powder
Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Tellurium	TWA: 0.01 mg/m <sup>3</sup>	TWA: 0.1 mg/m³ IPRD			TWA: 0.05 mg/m <sup>3</sup> 8 or
	3	3			STEL: 0.15 mg/m <sup>3</sup> 15
					minute
Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Tellurium	MAC: 0.01 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>		TLV: 0.1 mg/m <sup>3</sup> 8 timmar. NGV	

# **Biological limit values**

List source(s):

Component	Italy	Finland	Denmark	Bulgaria	Romania
Tellurium					Tellurium: 20 µg/L urine
					end of shift

#### **Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

# 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)
Tellurium				DNEL = 0.6mg/kg
13494-80-9 ( >95 )				bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Tellurium 13494-80-9 ( >95 )				DNEL = 0.4mg/m <sup>3</sup>

# **Predicted No Effect Concentration (PNEC)**

See values below.

Component	Fresh water	Fresh water sediment		Microorganisms in sewage treatment	Soil (Agriculture)
Tellurium	PNEC = 5.79µg/L	Seament	PNEC = 57.9µg/L		
13494-80-9 ( >95 )					

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Tellurium	PNEC = 0.579µg/L				
13494-80-9 ( >95 )					

# 8.2. Exposure controls

#### **Engineering Measures**

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

#### Personal protective equipment

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

**Hand Protection** Protective gloves

Glove material Breakthrough time Glove thickness Natural rubber See manufacturers - Nitrile rubber recommendations Neoprene PVC	EU standard EN 374	Glove comments (minimum requirement)
---	-----------------------	---

Skin and body protection Long sleeved clothing.

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

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

Revision Date 22-Mar-2024 Tellurium lumps/pieces 99.999%

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

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

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

Solid

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

**Environmental exposure controls** No information available.

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

# 9.1. Information on basic physical and chemical properties

**Physical State** Solid Powder

Silver **Appearance** Odor Odorless

**Odor Threshold** No data available 450 °C / 842 °F Melting Point/Range **Softening Point** No data available **Boiling Point/Range** 990 °C / 1814 °F

Flammability (liquid) Not applicable

Flammability (solid,gas) No information available

No data available **Explosion Limits** 

Flash Point No information available Method - No information available

**Autoignition Temperature** No data available **Decomposition Temperature** No data available

No information available Hq

Not applicable Solid **Viscosity** 

Water Solubility Insoluble

No information available Solubility in other solvents

Partition Coefficient (n-octanol/water)

**Vapor Pressure** 1 mmHg @ 520 °C **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** Te **Molecular Weight** 127.6

**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 Polymerization** Hazardous polymerization does not occur.

Tellurium lumps/pieces 99.999% Revision Date 22-Mar-2024

**Hazardous Reactions** 

None under normal processing.

10.4. Conditions to avoid

Incompatible products. Excess heat. Avoid dust formation.

10.5. Incompatible materials

Strong oxidizing agents.

#### 10.6. Hazardous decomposition products

None under normal use conditions.

# **SECTION 11: TOXICOLOGICAL INFORMATION**

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

#### **Product Information**

(a) acute toxicity;

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

Dermal No data available Inhalation Category 4

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Tellurium	>5000 mg/kg (Rat)	-	>2420 mg/m³(Rat)4 h

No data available (b) skin corrosion/irritation;

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

(d) respiratory or skin sensitization;

No data available Respiratory Skin Sub-category 1B

No information available

No data available (e) germ cell mutagenicity;

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Category 1B

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

**Target Organs** None known.

Not applicable (j) aspiration hazard;

Solid

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

Tellurium lumps/pieces 99.999%

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.

Revision Date 22-Mar-2024

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** Do not empty into drains. Harmful to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

Component Freshwater Fish		Water Flea	Freshwater Algae
Tellurium	LC50>37.1 mg/L 96h	EC50 = 5.7 mg/L 48h	

12.2. Persistence and degradability

**Persistence** Insoluble in water.

Degradability Not relevant for inorganic substances.

May have some potential to bioaccumulate 12.3. Bioaccumulative potential

Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water 12.4. Mobility in soil

solubility.

12.5. Results of PBT and vPvB

assessment

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

require assessment.

12.6. Endocrine disrupting

properties

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

12.7. Other adverse effects

**Persistent Organic Pollutant Ozone Depletion Potential** 

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

# SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused

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.

**Products** 

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

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

application specific.

Tellurium lumps/pieces 99.999% Revision Date 22-Mar-2024

Other Information Waste codes should be assigned by the user based on the application for which the product

was used. Do not empty into drains.

Switzerland - Waste Ordinance Disposal should be in accordance with applicable regional, national and local laws and

regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance,

ADWO) SR 814.600

https://www.fedlex.admin.ch/eli/cc/2015/891/en

# **SECTION 14: TRANSPORT INFORMATION**

IMDG/IMO Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

ADR Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

<u>IATA</u> Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

**14.5. Environmental hazards**No hazards identified

**14.6. Special precautions for user** No special precautions required.

14.7. Maritime transport in bulk

according to IMO instruments

SECTION 15: REGULATORY INFORMATION

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

Not applicable, packaged goods

**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
Tellurium	13494-80-9	236-813-4	-	-	X	X	KE-33095	X	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Tellurium	13494-80-9	X	ACTIVE	X	-	X	X	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

#### Tellurium lumps/pieces 99.999%

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)
Tellurium	13494-80-9	-	Use restricted. See item 75. (see link for restriction details)	-

#### **REACH links**

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

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

Component	CAS No	Seveso III Directive (2012/18/EC) -	Seveso III Directive (2012/18/EC) -	
		Qualifying Quantities for Major Accident   Qualifying Quantities for Safety Re		
		Notification	Requirements	
Tellurium	13494-80-9	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

#### **National Regulations**

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

**WGK Classification** Water endangering class = 2 (self classification)

# **Swiss Regulations**

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

## 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

H332 - Harmful if inhaled

H317 - May cause an allergic skin reaction

H360Df - May damage the unborn child. Suspected of damaging fertility

H362 - May cause harm to breast-fed children

ALFAAR40073

Revision Date 22-Mar-2024

H413 - May cause long lasting harmful effects to aquatic life

#### Legend

CAS - Chemical Abstracts Service

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

Substances/EU List of Notified Chemical Substances

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

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

**IECSC** - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

IARC - International Agency for Research on Cancer

**DNEL** - Derived No Effect Level

Predicted No Effect Concentration (PNEC)

TWA - Time Weighted Average

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

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

ICAO/IATA - International Civil Aviation Organization/International Air

IMO/IMDG - International Maritime Organization/International Maritime

Transport Association MARPOL - International Convention for the Prevention of Pollution from Shins

Dangerous Goods Code **OECD** - Organisation for Economic Co-operation and Development

ATE - Acute Toxicity Estimate **VOC** - (volatile organic compound)

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

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.

Prepared By Health, Safety and Environmental Department

18-Oct-2010 **Creation Date Revision Date** 22-Mar-2024

**Revision Summary** New emergency telephone response service provider.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

## **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**