

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

Creation Date 24-Apr-2014

Revision Date 20-Oct-2023

Revision Number 5

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

1.1. Product identifier

| Product Description: Cat No. : Synonyms Index No CAS No EC No Molecular Formula | <u>Mercury (II) chloride</u> M/2850/60, M/2850/48, M/2850/50, M/2850/53 Mercuric chloride 080-010-00-X 7487-94-7 231-299-8 Cl2 Hg |
|---|---|
| 1.2. Relevant identified uses of the s | 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 sat | fety data sheet |
| Company | · · |
| | UK entity/business name Fisher Scientific UK Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom |
| | EU entity/business name Thermo Fisher Scientific Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium |
| E-mail address | begel.sdsdesk@thermofisher.com |
| 1.4. Emergency telephone number | Tel: 01509 231166 Chemtrec US: (800) 424-9300 Chemtrec EU: 001-703-527-3887 |

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Physical hazards

Based on available data, the classification criteria are not met

Mercury (II) chloride

Revision Date 20-Oct-2023

Health hazards

Acute oral toxicity Acute dermal toxicity Skin Corrosion/Irritation Serious Eye Damage/Eye Irritation Germ Cell Mutagenicity Reproductive Toxicity Specific target organ toxicity - (repeated exposure)

Environmental hazards

Acute aquatic toxicity Chronic aquatic toxicity Category 1 (H300) Category 1 (H310) Category 1 B (H314) Category 1 (H318) Category 2 (H341) Category 2 (H361f) Category 1 (H372)

Category 1 (H400) Category 1 (H410)

Full text of Hazard Statements: see section 16



Hazard Statements

- H314 Causes severe skin burns and eye damage
- H341 Suspected of causing genetic defects
- H361f Suspected of damaging fertility
- H372 Causes damage to organs through prolonged or repeated exposure
- H410 Very toxic to aquatic life with long lasting effects
- H300 + H310 Fatal if swallowed or in contact with skin

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

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

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

| Component CAS NO EC NO Weight 70 CLP classification - According to | Component | CAS No | EC No | Weight % | CLP Classification - According to |
|--|-----------|--------|-------|----------|-----------------------------------|
|--|-----------|--------|-------|----------|-----------------------------------|

Mercury (II) chloride

Revision Date 20-Oct-2023

| | | | | GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 |
|-------------------|-----------|-------------------|-----|--|
| Mercuric chloride | 7487-94-7 | EEC No. 231-299-8 | >95 | Acute Tox. 1 (H300) Acute Tox. 1 (H310) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Muta. 2 (H341) Repr. 2 (H361f) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|-------------------|--|----------|-----------------|
| Mercuric chloride | STOT RE 2 (H373) :: C>=0.1% | 1000 | - |

Note

Note 1: The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture

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. Seek immediate medical attention/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. | | |
| Inhalation | Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. | | |
| Self-Protection of the First Aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. | | |
| 4.2. Most important symptoms and effects, both acute and delayed | | | |
| | Causes burns by all exposure routes. 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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. 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

The product causes burns of eyes, skin and mucous membranes. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Toxic fumes.

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. Evacuate personnel to safe areas. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. 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. 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. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe (dust, vapor, mist, gas). 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

Protect from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

Technical Rules for Hazardous Substances (TRGS) 510 Class 6.1B 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. EU - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

| Component | The United Kingdom | European Union | Ireland |
|-------------------|----------------------------------|----------------------------------|---------|
| Mercuric chloride | TWA: 0.02 mg/m ³ 8 hr | TWA: 0.02 mg/m ³ (8h) | |

Biological limit values

List source(s):

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

See manufacturers

No information available

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering Measures

Natural rubber

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 control hazardous materials at source

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|--|-------------------|--------------------|-------------|----------------|
| Hand Protection | Protectiv | ve gloves | | |
| Personal protective equi Eye Protection | | (European standard | l - EN 166) | |

(minimum requirement)

Revision Date 20-Oct-2023

| Nitrile rubber | recommendations | EN 374 | |
|----------------|-----------------|--------|--|
| Neoprene | | | |
| PVC | | | |

Skin and body protection

Long sleeved clothing.

Inspect gloves before use.

Mercury (II) chloride

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 | 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 | White Odorless No data available 277 °C / 530.6 °F No data available 302 °C / 575.6 °F Not applicable No information available No data available | Solid |
| Flash Point Autoignition Temperature Decomposition Temperature pH | No information available No data available No data available 3.3 | Method - No information available |
| Viscosity Water Solubility Solubility in other solvents Partition Coefficient (n-octanol/wat | Not applicable 7.4 g/100 ml (20°C) No information available er) | Solid |
| Vapor Pressure Density / Specific Gravity Bulk Density Vapor Density Particle characteristics | No data available 5.44 @ 25°C No data available Not applicable No data available | Solid |

9.2. Other information

| Molecular Formula | |
|-------------------|--|
| Molecular Weight | |
| Evaporation Rate | |

Cl2 Hg 271.5 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. Light sensitive.

10.3. Possibility of hazardous reactions

| Hazardous Polymerization Hazardous Reactions | Hazardous polymerization does not occur. None under normal processing. |
|---|--|
| 10.4. Conditions to avoid | Avoid dust formation. Incompatible products. Excess heat. Exposure to light. |
| 10.5. Incompatible materials | Organic materials. Acids. Bases. Strong oxidizing agents. Ammonia. Sulfides. Lead. Metals. copper. |

10.6. Hazardous decomposition products

Toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

OralCategory 1DermalCategory 1InhalationBased on available data, the classification criteria are not met

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation | |
|-------------------|------------------|--------------------------|-----------------|--|
| Mercuric chloride | 25.9 mg/kg (Rat) | LD50 = 41 mg/kg (Rabbit) | - | |
| | 1 mg/kg (Rat) | | | |

| (b) skin corrosion/irritation; | Category 1 B |
|---|--|
| (c) serious eye damage/irritation; | Category 1 |
| (d) respiratory or skin sensitization; Respiratory Skin | No data available No data available |
| (e) germ cell mutagenicity; | Category 2 |

| | Possible risk of irreversible effects |
|--|---|
| (f) carcinogenicity; | No data available |
| | There are no known carcinogenic chemicals in this product |
| | |
| (g) reproductive toxicity; Reproductive Effects | Category 2 Possible risk of impaired fertility. |
| (h) STOT-single exposure; | No data available |
| (i) STOT-repeated exposure; | Category 1 |
| Target Organs | Kidney. |
| (j) aspiration hazard; | Not applicable Solid |
| Symptoms / effects,both acute and delayed | 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 | |
| Endoaring Discupting Properties | Access and acting discusting properties for human health. This product doos not contain a |

| 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

Mercury (II) chloride

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 |
|-------------------|-------------------------------|----------------------|------------------|
| Mercuric chloride | LC50: 0.1 - 0.182 mg/L, 96h | EC50=0.0015mg/L 48 h | |
| | flow-through (Pimephales | EC50=0.012mg/L >48 h | |
| | promelas) | | |
| | LC50: 0.096 - 0.133 mg/L, 96h | | |
| | static (Lepomis macrochirus) | | |
| | LC50: 0.13 - 0.19 mg/L, 96h | | |
| | static (Oncorhynchus mykiss) | | |
| | LC50: 0.014 - 0.019 mg/L, 96h | | |
| | flow-through (Oncorhynchus | | |
| | mykiss) | | |
| | LC50: 0.02 - 0.26 mg/L, 96h | | |
| | static (Cyprinus carpio) | | |
| | LC50: = 4.425 mg/L, 96h | | |
| | (Cyprinus carpio) | | |
| | LC50: = 0.4 mg/L, 96h | | |
| | semi-static (Lepomis | | |
| | macrochirus) | | |
| | LC50: = 0.041 mg/L, 96h | | |
| | (Poecilia reticulata) | | |
| | LC50: 5.933 - 10.34 mg/L, 96h | | |
| | static (Poecilia reticulata) | | |
| | LC50: = 0.155 mg/L, 96h | | |

Revision Date 20-Oct-2023

Mercury (II) chloride

| | (Pimephales promelas) | | |
|--|-----------------------|--|--|
|--|-----------------------|--|--|

| Component | Microtox | M-Factor |
|-------------------|----------|----------|
| Mercuric chloride | | 1000 |

| 12.2. Persistence and degradability Persistence Degradability Degradation in sewage treatment plant | Soluble in water, Persistence is unlikely, based on information available. Not relevant for inorganic substances. Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants. |
|---|---|
| 12.3. Bioaccumulative potential | Bioaccumulation is unlikely |
| 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 |
| <u>12.5. Results of PBT and vPvB</u> assessment | No data available for assessment. |
| <u>12.6. Endocrine disrupting</u> properties Endocrine Disruptor Information | This product does not contain any known or suspected endocrine disruptors |

| 12.7. Other adverse effects | |
|------------------------------|--|
| Persistent Organic Pollutant | This product does not contain any known or suspected substance |
| Ozone Depletion Potential | This product does not contain any known or suspected substance |

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

| Waste from Residues/Unused Products | Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. |
|--|---|
| Contaminated Packaging | Dispose of this container to hazardous or special waste collection point. |
| European Waste Catalogue (EWC) | According to the European Waste Catalog, Waste Codes are not product specific, but application specific. |
| 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. Do not let this chemical enter the environment. |

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number

UN1624

Mercury (II) chloride

| <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u> | MERCURIC CHLORIDE 6.1 II |
|---|--|
| ADR | |
| <u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> <u>14.4. Packing group</u> | UN1624 MERCURIC CHLORIDE 6.1 II |
| ΙΑΤΑ | |
| <u>14.1. UN number</u> 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group | UN1624 MERCURIC CHLORIDE 6.1 II |
| 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 |
|-------------------|-----------|-----------|---|-----|-------|------|----------|-------|-------|
| Mercuric chloride | 7487-94-7 | 231-299-8 | - | - | Х | Х | KE-23121 | Х | Х |
| | | | | | | | | | |
| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | | DSL | NDSL | AICS | NZIoC | PICCS |
| Mercuric chloride | 7487-94-7 | 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

| 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) |
|-------------------|-----------|---|---|---|
| Mercuric chloride | 7487-94-7 | - | Use restricted. See item 75. (see link for restriction details) Use restricted. See item 18. (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 | Requirements |
| Mercuric chloride | 7487-94-7 | 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) |
|-------------------------------------|--|---|---|
| Mercuric chloride 7487-94-7(>95) | p(1) — pesticide in the group of plant protection products b — ban (for the category or categories concerned) | - | p — pesticides |
| | p(2) — other pesticide including biocides b — ban (for the category or categories concerned) | | |
| | Ref — Please refer to PIC circular at www.pic.int/ | | |

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 .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

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

See table for values

| Component | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|-------------------|---------------------------------------|-------------------------|
| Mercuric chloride | WGK3 | |

| Component | France - INRS (Tables of occupational diseases) |
|-------------------|---|
| Mercuric chloride | Tableaux des maladies professionnelles (TMP) - RG 2 |

| Component | Switzerland - Ordinance on the | Switzerland - Ordinance on | Switzerland - Ordinance of the |
|-----------|--------------------------------|-----------------------------|--------------------------------|
| | Reduction of Risk from | Incentive Taxes on Volatile | Rotterdam Convention on the |
| | handling of hazardous | Organic Compounds (OVOC) | Prior Informed Consent |
| | substances preparation (SR | | Procedure |

Revision Date 20-Oct-2023

Mercury (II) chloride

| | 814.81) | |
|-------------------|---------------------------|-------------------------------|
| Mercuric chloride | Prohibited and Restricted | Annex I - pesticide |
| 7487-94-7 (>95) | Substances | Annex I - industrial chemical |
| | | Annex II - pesticide |

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

- H300 Fatal if swallowed
- H310 Fatal in contact with skin
- H314 Causes severe skin burns and eye damage
- H318 Causes serious eye damage
- H341 Suspected of causing genetic defects
- H361f Suspected of damaging fertility
- H372 Causes damage to organs through prolonged or repeated exposure
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects

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 | TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic 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 Key literature references and sources for data | 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) |

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 hygiene.

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. Chemical incident response training.

| Creation Date | 24-Apr-2014 |
|------------------|-----------------|
| Revision Date | 20-Oct-2023 |
| Revision Summary | Not applicable. |

This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet