

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

Creation Date 20-Sep-2011

Revision Date 02-Feb-2024

Revision Number 5

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

1.1. Product identifier

| Product Description: | 1,2-Dibromoethane |
|---------------------------|-------------------------|
| Cat No. : | A12766 |
| Synonyms | EDB; Ethylene dibromide |
| Index No | 602-010-00-6 |
| CAS No | 106-93-4 |
| Molecular Formula | C2 H4 Br2 |
| 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 | Avocado Research Chemicals Ltd. (Part of Thermo Fisher Scientific) Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608 |
|---------------------------------|---|
| 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

1,2-Dibromoethane

Acute oral toxicity Acute dermal toxicity Acute Inhalation Toxicity - Vapors Skin Corrosion/Irritation Serious Eye Damage/Eye Irritation Carcinogenicity Specific target organ toxicity - (single exposure)

Environmental hazards

Chronic aquatic toxicity

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Category 3 (H301) Category 3 (H311) Category 3 (H331) Category 2 (H315) Category 2 (H319) Category 1B (H350) Category 3 (H335)

Category 2 (H411)

Full text of Hazard Statements: see section 16



Signal Word

Danger

Hazard Statements

- H319 Causes serious eye irritation
- H315 Causes skin irritation
- H350 May cause cancer
- H411 Toxic to aquatic life with long lasting effects

H335 - May cause respiratory irritation

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

Precautionary Statements

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

P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P273 - Avoid release to the environment

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

Additional EU labelling

Restricted to professional users

2.3. Other hazards

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

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 % | CLP Classification - According to |
|-----------|--------|-------|----------|-----------------------------------|
|-----------|--------|-------|----------|-----------------------------------|

1,2-Dibromoethane

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| | | | | GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 |
|--|----------|-------------------|------|---|
| Ethylene dibromide (1,2-Dibromoethane) | 106-93-4 | EEC No. 203-444-5 | <100 | Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Carc. 1B (H350) STOT SE 3 (H335) Aquatic Chronic 2 (H411) |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|--|---|----------|-----------------|
| Ethylene dibromide (1,2-Dibromoethane) | Carc. 1B : C ≥ 0.1 % Eye Irrit. 2 : C > 3 % Skin Irrit. 2 : C > 3 % | - | - |

| REACH registration number | - |
|---------------------------|---|
| | |

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

| Eye Contact | Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. |
|------------------------------------|--|
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required. |
| Ingestion | Call a physician immediately. Clean mouth with water. |
| Inhalation | Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. 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 |
| | Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting |
| 4.3 Indication of any immediate me | dical attention and special treatment peeded |

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

| Notes to Physician | Treat symptomatically. Symptoms may be delayed. |
|--------------------|---|
|--------------------|---|

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical 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.

1,2-Dibromoethane

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen halides.

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.

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 (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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

Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Handle product only in closed system or provide appropriate exhaust ventilation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Protect from direct sunlight. Do not store in metal containers.

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

1,2-Dibromoethane

List source(s): **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE -** 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority **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 |
|--|-------------------------------------|---------------------------------|------------------------------------|
| Ethylene dibromide (1,2-Dibromoethane) | STEL: 1.5 ppm 15 min | TWA: 0.8 mg/m ³ (8h) | TWA: 0.1 ppm 8 hr. |
| | STEL: 11.7 mg/m ³ 15 min | TWA: 0.1 ppm (8h) | TWA: 0.8 mg/m ³ 8 hr. |
| | TWA: 0.5 ppm 8 hr | Skin | STEL: 0.3 ppm 15 min |
| | TWA: 3.9 mg/m ³ 8 hr | | STEL: 2.4 mg/m ³ 15 min |
| | Carc. | | Skin |
| | Skin | | |

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)

See table for values

| Component | Acute effects local (Dermal) | Acute effects systemic (Dermal) | Chronic effects local (Dermal) | Chronic effects systemic (Dermal) |
|---------------------|---------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| Ethylene dibromide | | DNEL = 1.13mg/kg | | DMEL = 0.01mg/kg |
| (1,2-Dibromoethane) | | bw/day | | bw/day |
| 106-93-4(<100) | | | | |

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---------------------|-------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|
| Ethylene dibromide | | DNEL = 8mg/m ³ | DNEL = 2.3mg/m ³ | DMEL = 0.0005mg/m ³ |
| (1,2-Dibromoethane) | | | | |
| 106-93-4 (<100) | | | | |

Predicted No Effect Concentration (PNEC)

See values below.

| Component | Fresh water | Fresh water | Water Intermittent | Microorganisms in | Soil (Agriculture) |
|--|-----------------|-------------------------------------|----------------------|-------------------|------------------------------|
| | | sediment | | sewage treatment | |
| Ethylene dibromide (1,2-Dibromoethane) 106-93-4 (<100) | PNEC = 58.1µg/L | PNEC = 0.884mg/kg sediment dw | PNEC = 0.0113mg/L | PNEC = 10mg/L | PNEC = 0.625mg/kg soil dw |

| Component | Marine water | Marine water sediment | Marine water intermittent | Food chain | Air |
|--|-----------------|--------------------------------------|------------------------------|---------------------------|-----|
| Ethylene dibromide (1,2-Dibromoethane) 106-93-4 (<100) | PNEC = 5.81µg/L | PNEC = 0.0884mg/kg sediment dw | | PNEC = 0.097mg/kg food | |

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

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

Hand Protection

Protective gloves

1,2-Dibromoethane

| | Breakthrough time | Glove thickness | EU standard | Glove comments |
|-----------------------------|--------------------------|--|--|--|
| Viton (R) | See manufacturers | - | EN 374 | (minimum requirement) |
| | recommendations | | | |
| Skin and body protec | tion Wear ap | propriate protective | gloves and clothing to | prevent skin exposure. |
| Inspect gloves before use. | | | | |
| Please observe the instruct | tions regarding perm | eability and breakthro | ough time which are p | rovided by the supplier of the gloves. |
| (Refer to manufacturer/sup | | | | |
| | | | | nditions, User susceptibility, e.g. |
| | ake into consideration | n the specific local co | onditions under which | the product is used, such as the danger |
| of cuts, abrasion. | | | | |
| Remove gloves with care a | ivoiding skin contami | nation. | | |
| Respiratory Protectio | | orkers are facing cor ate certified respirato | | exposure limit they must use |
| | To prote | | | ment must be the correct fit and be used |
| Large scale/emergency u | | | pean Standard EN 13 r other symptoms are | 6 approved respirator if exposure limits |
| | | nended Filter type: | | apours filter Type A Brown conforming to |
| Small scale/Laboratory us | | | pean Standard EN 14 tion or other symptom | 9:2001 approved respirator if exposure |
| | | | | 5; or; Half mask: EN140; plus filter, EN |
| | | PE is used a face pie | ece Fit Test should be | conducted |
| Environmental exposure | controls Prevent system. | product from entering | g drains. Do not allow | material to contaminate ground water |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| Physical State | Liquid | |
|--|---|-----------------------------------|
| Appearance Odor Odor Threshold Melting Point/Range Softening Point Boiling Point/Range Flammability (liquid) Flammability (solid,gas) Explosion Limits | Colorless sweet No data available 9 - 10 °C / 48.2 - 50 °F No data available 131 - 132 °C / 267.8 - 269.6 °F No data available Not applicable No data available | Liquid |
| Flash Point | > 104 °C / > 219.2 °F No data available | Method - No information available |
| Autoignition Temperature Decomposition Temperature pH | > 340°C No information available | |
| Viscosity Water Solubility Solubility in other solvents | No data available 4 g/L (20°C) No information available | |
| Partition Coefficient (n-octanol/wate | | |
| Component Ethylene dibromide (1,2-Dibromoethane) | log Pow 1.93 | |
| Vapor Pressure Density / Specific Gravity Bulk Density | 11 mmHg @ 25 °C 2.173 Not applicable | Liquid |
| Vapor Density | 6.5 (Air = 1.0) | (Air = 1.0) |

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| Particle characteristics | Not applicable (liquid) |
|---|---|
| 9.2. Other information | |
| Molecular Formula Molecular Weight | C2 H4 Br2 187.86 |
| | SECTION 10: STABILITY AND REACTIVITY |
| 10.1. Reactivity | None known, based on information available |
| 10.2. Chemical stability | Decomposes in contact with water. heat sensitive. Light sensitive. Decomposes on exposure to light. |
| 10.3. Possibility of hazardous re | actions |
| Hazardous Polymerization Hazardous Reactions | No information available. No information available. |
| 10.4. Conditions to avoid | Exposure to light. Incompatible products. Exposure to moisture. |
| 10.5. Incompatible materials | Strong bases. Ammonia. Metals. |
| 10.6 Hazardous decomposition | products |

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen halides.

| SECTION 11: TOXICOLOGICAL | INFORMATION |
|----------------------------------|--------------------|
|----------------------------------|--------------------|

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

Product Information

1,2-Dibromoethane

| (a) acute toxicity; | |
|---------------------|------------|
| Oral | Category 3 |
| Dermal | Category 3 |
| Inhalation | Category 3 |

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--|------------------------|---------------------------|--------------------------|
| Ethylene dibromide (1,2-Dibromoethane) | LD50 = 117 mg/kg (Rat) | LD50 = 300 mg/kg (Rabbit) | LC50 > 200 ppm (Rat) 4 h |
| | | | |

| | (h) | okin correcton/irritation. | Cotogory 2 |
|---|-----|----------------------------|------------|
| 1 | U) | skin corrosion/irritation; | Category 2 |

(c) serious eye damage/irritation; Category 2

- (d) respiratory or skin sensitization; Respiratory Skin
 (e) germ cell mutagenicity;
 No data available
- (f) carcinogenicity; Category 1B

1,2-Dibromoethane

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

| Component | EU | UK | Germany | IARC |
|---------------------|--------------|----|---------|----------|
| Ethylene dibromide | Carc Cat. 1B | | Cat. 2 | Group 2A |
| (1,2-Dibromoethane) | | | | |

| (g) reproductive toxicity; | No data available |
|--|--|
| (h) STOT-single exposure; | Category 3 |
| Results / Target organs | Respiratory system. |
| (i) STOT-repeated exposure; | No data available |
| Target Organs | No information available. |
| (j) aspiration hazard; | No data available |
| Symptoms / effects,both acute and delayed | Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |

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

The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|--|---|------------|------------------|
| Ethylene dibromide (1,2-Dibromoethane) | LC50: 27.6 - 37.4 mg/L, 96h flow-through (Oryzias latipes) | | |

| Component | Microtox | M-Factor |
|--|-----------------------|----------|
| Ethylene dibromide (1,2-Dibromoethane) | EC50 = 735 mg/L 5 min | |

12.2. Persistence and degradability Not readily biodegradable

Persistence is unlikely.

Degradation in sewage treatment plant

Persistence

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

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|--|---------|-------------------------------|
| Ethylene dibromide (1,2-Dibromoethane) | 1.93 | <10 dimensionless |

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 and very bioaccumulative (vPvB).

12.6. Endocrine disrupting

properties Endocrine Disruptor Information

| Component | EU - Endocrine Disrupters Candidate List | EU - Endocrine Disruptors - Evaluated |
|--|--|---------------------------------------|
| | | Substances |
| Ethylene dibromide (1.2-Dibromoethane) | Group III Chemical | |

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 | 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. Do not let this chemical enter the environment. |

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

| <u>14.1. UN number</u> 14.2. UN proper shipping name | UN1605 ETHYLENE DIBROMIDE |
|---|------------------------------|
| 14.3. Transport hazard class(es) | 6.1 |
| 14.4. Packing group | Ι |
| | |

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> | UN1605 ETHYLENE DIBROMIDE 6.1 I |
|---|--|
| IATA | FORBIDDEN FOR IATA TRANSPORT |
| <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> | UN1605 ETHYLENE DIBROMIDE, FORBIDDEN FOR IATA TRANSPORT 6.1 I |
| 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 | Not applicable, packaged goods |

1,2-Dibromoethane

according to IMO instruments

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 |
|---------------------|----------|-----------|--------|-----|-------|------|-----------|------|------|
| Ethylene dibromide | 106-93-4 | 203-444-5 | - | - | Х | Х | KE-05-044 | Х | Х |
| (1,2-Dibromoethane) | | | | | | | 7 | | |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---|----------|------|---|-----|------|------|-------|-------|
| Ethylene dibromide (1,2-Dibromoethane) | 106-93-4 | x | ACTIVE | х | - | Х | X | 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 Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|----------|---|--|---|
| Ethylene dibromide (1,2-Dibromoethane) | 106-93-4 | - | Use restricted. See item 28. (see link for restriction details) Use restricted. See item 75. (see link for restriction details) | - |

REACH links

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

Seveso III Directive (2012/18/EC)

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---|----------|---|--|
| Ethylene dibromide (1,2-Dibromoethane) | 106-93-4 | 0.5 tonne | 2 tonne |

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) |
|---|--|---|---|
| Ethylene dibromide (1,2-Dibromoethane) 106-93-4 (<100) | 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 | | |

1,2-Dibromoethane

| 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 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

| rmany - Water Classification (AwSV) | Germany - TA-Luft Class |
|-------------------------------------|-------------------------|
| WGK3 | |
| | WGK3 |

| Component | France - INRS (Tables of occupational diseases) |
|---------------------|--|
| Ethylene dibromide | Tableaux des maladies professionnelles (TMP) - RG 12 |
| (1,2-Dibromoethane) | |

| Component | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|--|--|---|--|
| Ethylene dibromide (1,2-Dibromoethane) | Persistent Organic Pollutants | | Annex I - pesticide |
| 106-93-4 (<100) | (POPs) | | 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

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H331 - Toxic if inhaled

H335 - May cause respiratory irritation

H350 - May cause cancer

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 List/Non-Domestic Substances List

1,2-Dibromoethane

| PICCS - Philippines Inventory of Chemicals and Chemical Substances | ENCS - Japanese Existing and New Chemical Substances |
|---|--|
| IECSC - Chinese Inventory of Existing 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 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 | ICAO/IATA - International Civil Aviation Organization/International Air |
| Dangerous Goods by Road | Transport Association |
| IMO/IMDG - International Maritime Organization/International Maritime | MARPOL - International Convention for the Prevention of Pollution from |
| Dangerous Goods Code | Ships |
| OECD - Organisation for Economic Co-operation and Development | ATE - Acute Toxicity Estimate |
| BCF - Bioconcentration factor | VOC - (Volatile Organic Compound) |

Training Advice

Key literature references and sources for data https://echa.europa.eu/information-on-chemicals

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.

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

| Prepared By | Health, Safety and Environmental Department |
|------------------|--|
| Creation Date | 20-Sep-2011 |
| Revision Date | 02-Feb-2024 |
| Revision Summary | New emergency telephone response service provider. |

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

Disclaimer

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End of Safety Data Sheet