

Creation Date 04-Feb-2010

Revision Date 06-Oct-2023

Revision Number 12

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

1.1. Product identifier

| | |
|---------------------------|--|
| Product Description: | 1,2-Dichloroethane |
| Cat No. : | 446990000; 446990010; 446990025 |
| Synonyms | Ethylene dichloride; EDC |
| Index No | 602-012-00-7 |
| CAS No | 107-06-2 |
| EC No | 203-458-1 |
| Molecular Formula | C2 H4 Cl2 |
| REACH registration number | - |

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

| | |
|--------------------------------|---|
| Recommended Use | Laboratory 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 Pharmaceuticaaan 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

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Physical hazards

Flammable liquids

Category 2 (H225)

Health hazards

Acute oral toxicity

Category 4 (H302)

Acute Inhalation Toxicity - Vapors

Category 3 (H331)

Skin Corrosion/Irritation

Category 2 (H315)

Serious Eye Damage/Eye Irritation

Category 2 (H319)

Carcinogenicity

Category 1B (H350)

Specific target organ toxicity - (single exposure)

Category 3 (H335) (H336)

Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor

H302 - Harmful if swallowed

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H331 - Toxic if inhaled

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H350 - May cause cancer

Precautionary Statements

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

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

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

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

P311 - Call a POISON CENTER or doctor/physician

P362 - Take off contaminated clothing and wash before reuse

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Additional EU labelling

Restricted to professional users

2.3. Other hazards

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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 GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567 |
|---------------------|----------|-------------------|----------|---|
| Ethylene dichloride | 107-06-2 | EEC No. 203-458-1 | >95 | Flam. Liq. 2 (H225) Acute Tox. 4 (H302) Acute Tox. 3 (H331) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) STOT SE 3 (H336) Carc. 1B (H350) |

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 | 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. Immediate medical attention is required. |
| 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 breathing is difficult, give oxygen. 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 | Use personal protective equipment as required. |

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

Difficulty in breathing. May cause cardiac arrhythmia. May cause central nervous system depression: Symptoms may include tightness in the chest, flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions, and shock

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

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Notes to Physician

Treat symptomatically. Symptoms may be delayed. A patient adversely affected by exposure to this product should not be given adrenaline (epinephrine) or similar heart stimulant since these would increase the risk of cardiac arrhythmias.

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.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂), Phosgene, Hydrogen chloride gas.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

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. Use spark-proof tools and explosion-proof equipment.

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. Do not ingest. If swallowed then seek immediate medical assistance. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

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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. Keep away from heat, sparks and flame.

Technical Rules for Hazardous Substances (TRGS) 510 Class 3
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. **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 dichloride | STEL: 15 ppm 15 min STEL: 63 mg/m ³ 15 min TWA: 5 ppm 8 hr TWA: 21 mg/m ³ 8 hr Carc. Skin | TWA: 8.2 mg/m ³ (8h) TWA: 2 ppm (8h) Skin | TWA: 2 ppm 8 hr. TWA: 8.2 mg/m ³ 8 hr. STEL: 6 ppm 15 min STEL: 24.6 mg/m ³ 15 min |

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 dichloride 107-06-2 (>95) | | | | DMEL = 62.4mg/kg bw/day |

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------|
| Ethylene dichloride 107-06-2 (>95) | | | | DMEL = 6.6mg/m ³ |

Predicted No Effect Concentration (PNEC)

See values below.

| Component | Fresh water | Fresh water sediment | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture) |
|-----------|-------------|----------------------|--------------------|------------------------------------|--------------------|
| | | | | | |

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| | | | | | |
|---|----------------|---------------------------------|-----------------|-----------------|----------------------------|
| Ethylene dichloride 107-06-2 (>95) | PNEC = 1.1mg/L | PNEC = 11.1mg/kg sediment dw | PNEC = 1.36mg/L | PNEC = 27.8mg/L | PNEC = 1.8mg/kg soil dw |
|---|----------------|---------------------------------|-----------------|-----------------|----------------------------|

| Component | Marine water | Marine water sediment | Marine water intermittent | Food chain | Air |
|---|-----------------|---------------------------------|------------------------------|--------------------------|-----|
| Ethylene dichloride 107-06-2 (>95) | PNEC = 0.11mg/L | PNEC = 1.11mg/kg sediment dw | | PNEC = 8.33mg/kg food | |

8.2. Exposure controls

Engineering Measures

Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. 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 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 | EU standard | Glove comments |
|----------------|--------------------------------|------------------|------------------------------|--|
| Viton (R) | < 315 minutes > 480 minutes | 0.3 mm 0.7 mm | Level 5 Level 6 EN 374 | Permeation rate 4 µg/cm ² /min As tested under EN374-3 Determination of Resistance to Permeation by Chemicals |
| Butyl rubber | < 70 minutes | 0.635 mm | | |

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 compatibility, 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: Organic gases and vapours filter Type A Brown 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 141

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

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| | | |
|---|---|--|
| Physical State | Liquid | |
| Appearance | Colorless | |
| Odor | sweet | |
| Odor Threshold | 400 ppm | |
| Melting Point/Range | -35 °C / -31 °F | |
| Softening Point | No data available | |
| Boiling Point/Range | 81 - 85 °C / 177.8 - 185 °F | |
| Flammability (liquid) | Highly flammable | On basis of test data |
| Flammability (solid,gas) | Not applicable | Liquid |
| Explosion Limits | Lower 6.2 vol% Upper 15.9 vol% | |
| Flash Point | 13 °C / 55.4 °F | Method - No information available |
| Autoignition Temperature | 440 °C / 824 °F | |
| Decomposition Temperature | No data available | |
| pH | No information available | |
| Viscosity | 0.8 mPa s at 20 °C | |
| Water Solubility | 8.7 g/L (20°C) | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Component | log Pow | |
| Ethylene dichloride | 1.45 | |
| Vapor Pressure | 65 mmHg @ 29 °C | |
| Density / Specific Gravity | 1.250 | |
| Bulk Density | Not applicable | Liquid |
| Vapor Density | 3.4 | (Air = 1.0) |
| Particle characteristics | Not applicable (liquid) | |

9.2. Other information

| | |
|----------------------|---|
| Molecular Formula | C2 H4 Cl2 |
| Molecular Weight | 98.96 |
| Explosive Properties | Vapors may form explosive mixtures with air |
| Evaporation Rate | 6.5 (Butyl Acetate = 1.0) |

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. Bases. Alkali metals.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂). Phosgene. Hydrogen chloride gas.

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SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

Oral

Category 4

Dermal

Based on available data, the classification criteria are not met

Inhalation

Category 3

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---------------------|--|-----------------------|--|
| Ethylene dichloride | 625 mg/kg (Rat) 413 mg/kg (Mouse) | 2800 mg/kg (Rabbit) | 28.79 mg/L (Rat) 1h 7.8 mg/l (Rat) 4h |

(b) skin corrosion/irritation;

Category 2

(c) serious eye damage/irritation;

Category 2

(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

(e) germ cell mutagenicity;

Based on available data, the classification criteria are not met

(f) carcinogenicity;

Category 1B

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

| Component | EU | UK | Germany | IARC |
|---------------------|--------------|----|---------|----------|
| Ethylene dichloride | Carc Cat. 1B | | Cat. 2 | Group 2B |

(g) reproductive toxicity;

Based on available data, the classification criteria are not met

(h) STOT-single exposure;

Category 3

Results / Target organs

Respiratory system, Central nervous system (CNS).

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Target Organs

None known.

(j) aspiration hazard;

Based on available data, the classification criteria are not met

Kinematic viscosity:

> 20.5 mm² /s

Symptoms / effects, both acute and delayed

May cause central nervous system depression. Symptoms may include tightness in the chest, flushing, headache, nausea, vomiting, respiratory depression, weakness, irregular heartbeat, abdominal pain, convulsions, and shock.

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.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

Do not empty into drains.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|---------------------|--|--|---|
| Ethylene dichloride | LC50: 230 - 710 mg/L, 96h flow-through (Lepomis macrochirus) LC50: 110 - 123 mg/L, 96h flow-through (Pimephales promelas) LC50: = 225 mg/L, 96h static (Oncorhynchus mykiss) | EC50: 140 - 190 mg/L, 48h Static (Daphnia magna) | EC50: > 433 mg/L, 96h (Pseudokirchneriella subcapitata) EC50: = 166 mg/L, 96h static (Desmodesmus subspicatus) |

12.2. Persistence and degradability

Persistence

Not readily biodegradable

Persistence is unlikely, based on information available.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|---------------------|---------|-------------------------------|
| Ethylene dichloride | 1.45 | 2 dimensionless |

12.4. Mobility in soil

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.

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

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

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. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

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Other Information

Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN1184
14.2. UN proper shipping name ETHYLENE DICHLORIDE
14.3. Transport hazard class(es) 3
Subsidiary Hazard Class 6.1
14.4. Packing group II

ADR

14.1. UN number UN1184
14.2. UN proper shipping name ETHYLENE DICHLORIDE
14.3. Transport hazard class(es) 3
Subsidiary Hazard Class 6.1
14.4. Packing group II

IATA

14.1. UN number UN1184
14.2. UN proper shipping name ETHYLENE DICHLORIDE
14.3. Transport hazard class(es) 3
Subsidiary Hazard Class 6.1
14.4. Packing group II

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 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 |
|---------------------|----------|-----------|--------|-----|-------|------|----------|------|------|
| Ethylene dichloride | 107-06-2 | 203-458-1 | - | - | X | X | KE-10121 | X | X |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---------------------|----------|------|---|-----|------|------|-------|-------|
| Ethylene dichloride | 107-06-2 | 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>)

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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) |
|---------------------|----------|--|--|---|
| Ethylene dichloride | 107-06-2 | Carcinogenic Category 1B, Article 57 Application date: May 22, 2016 Sunset date: November 22, 2017 Exemption - None | Use restricted. See item 28. (see link for restriction details) Use restricted. See item 75. (see link for restriction details) | SVHC Candidate list - Carcinogenic, Article 57a |

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

REACH links

<https://echa.europa.eu/authorisation-list>

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

<https://echa.europa.eu/candidate-list-table>

Seveso III Directive (2012/18/EC)

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---------------------|----------|---|--|
| Ethylene dichloride | 107-06-2 | 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) |
|---|--|---|--|
| Ethylene dichloride 107-06-2 (>95) | p(1) — pesticide in the group of plant protection products b — ban (for the category or categories concerned) p(2) — other pesticide including biocides b — ban (for the category or categories concerned) i(2) — industrial chemical for public Ref — Please refer to PIC circular at www.pic.int/ | - | p — pesticides |

<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

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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 |
|---------------------|---------------------------------------|---|
| Ethylene dichloride | WGK3 | Krebserzeugende Stoffe - Class III : 1 mg/m ³ (Massenkonzentration) |

| Component | France - INRS (Tables of occupational diseases) |
|---------------------|--|
| Ethylene dichloride | Tableaux des maladies professionnelles (TMP) - RG 12 |

| 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 dichloride 107-06-2 (>95) | Persistent Organic Pollutants (POPs) Prohibited and Restricted Substances | | Annex I - Present Annex II - pesticide |

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H331 - Toxic if inhaled
H335 - May cause respiratory irritation
H350 - May cause cancer
H336 - May cause drowsiness or dizziness

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/NDL - 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

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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

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

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

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)

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 04-Feb-2010

Revision Date 06-Oct-2023

Revision Summary SDS sections updated, 1, 3.

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