

Creation Date 04-Feb-2010

Revision Date 27-Jun-2024

Revision Number 13

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

### 1.1. Product identifier

|                                  |  |
|----------------------------------|--|
| <b>Product Description:</b>      | <b>1,2-Dichloroethane</b>                                    |
| <b>Cat No. :</b>                 | <b>113360000; 113360010; 113360025; 113360250; 113361000</b> |
| <b>Synonyms</b>                  | Ethylene dichloride; EDC                                     |
| <b>Index No</b>                  | 602-012-00-7   |
| <b>CAS No</b>                    | 107-06-2   |
| <b>EC No</b>                     | 203-458-1  |
| <b>Molecular Formula</b>         | C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>                |
| <b>REACH registration number</b> | 01-2119484658-20   |

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

|                                       |   |
|---------------------------------------|---|
| <b>Recommended Use</b>                | Laboratory chemicals. Intermediate use. The substance is used under strictly controlled conditions. |
| <b>Sector of use</b>                  | SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites            |
| <b>Product category</b>               | PC21 - Laboratory chemicals   |
| <b>Process categories</b>             | PROC15 - Use as a laboratory reagent  |
| <b>Environmental release category</b> | ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)         |
| <b>Uses advised against</b>           | All other uses  |

### 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

GHS 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

H331 - Toxic if inhaled

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H350 - May cause cancer

## Precautionary Statements

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

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

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

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

P311 - Call a POISON CENTER or doctor/physician

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

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

## 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)

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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 % | GHS 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)<br>Acute Tox. 4 (H302)<br>Acute Tox. 3 (H331)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)<br>STOT SE 3 (H336)<br>Carc. 1B (H350) |

REACH registration number

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Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|                                    |  |
|------------------------------------|--|
| General Advice                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  |
| Eye Contact                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.   |
| Skin Contact                       | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.  |
| Ingestion                          | Do NOT induce vomiting. Call a physician or poison control center immediately.   |
| 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 | Use personal protective equipment as required.   |

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

None reasonably foreseeable. 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: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

### 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 (CO<sub>2</sub>), 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 (CO<sub>2</sub>), 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. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

### 6.2. Environmental precautions

Should not be released into the environment.

### 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. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. 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<br>STEL: 63 mg/m <sup>3</sup> 15 min<br>TWA: 5 ppm 8 hr<br>TWA: 21 mg/m <sup>3</sup> 8 hr<br>Carc.<br>Skin | TWA: 8.2 mg/m <sup>3</sup> (8h)<br>TWA: 2 ppm (8h)<br>Skin | TWA: 2 ppm 8 hr.<br>TWA: 8.2 mg/m <sup>3</sup> 8 hr.<br>STEL: 6 ppm 15 min<br>STEL: 24.6 mg/m <sup>3</sup> 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<br>107-06-2 ( >95 ) |                              |                                 |                                | DMEL = 62.4mg/kg<br>bw/day        |

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

#### Predicted No Effect Concentration (PNEC)

See values below.

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

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

| Component                               | Marine water    | Marine water<br>sediment        | Marine water<br>intermittent | Food chain               | Air |
|---|-----------------|---------------------------------|------------------------------|--------------------------|-----|
| Ethylene dichloride<br>107-06-2 ( >95 ) | PNEC = 0.11mg/L | PNEC = 1.11mg/kg<br>sediment dw |                              | PNEC = 8.33mg/kg<br>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<br>> 480 minutes | 0.3 mm<br>0.7 mm | Level 5<br>Level 6<br>EN 374 | Permeation rate 4 µg/cm <sup>2</sup> /min<br>As tested under EN374-3 Determination of<br>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 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:** 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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|  |   |  |
|--|---|--|
| <b>Physical State</b>                          | Liquid  |  |
| <b>Appearance</b>                              | Colorless                                       |  |
| <b>Odor</b>                                    | sweet   |  |
| <b>Odor Threshold</b>                          | 400 ppm   |  |
| <b>Melting Point/Range</b>                     | -35 °C / -31 °F                                 |  |
| <b>Softening Point</b>                         | No data available                               |  |
| <b>Boiling Point/Range</b>                     | 81 - 85 °C / 177.8 - 185 °F                     |  |
| <b>Flammability (liquid)</b>                   | Highly flammable                                | On basis of test data                    |
| <b>Flammability (solid,gas)</b>                | Not applicable                                  | Liquid                                   |
| <b>Explosion Limits</b>                        | <b>Lower</b> 6.2 vol%<br><b>Upper</b> 15.9 vol% |  |
| <b>Flash Point</b>                             | 13 °C / 55.4 °F                                 | <b>Method</b> - No information available |
| <b>Autoignition Temperature</b>                | 440 °C / 824 °F                                 |  |
| <b>Decomposition Temperature</b>               | No data available                               |  |
| <b>pH</b>                                      | No information available                        |  |
| <b>Viscosity</b>                               | 0.8 mPa s at 20 °C                              |  |
| <b>Water Solubility</b>                        | 8.7 g/L (20°C)                                  |  |
| <b>Solubility in other solvents</b>            | No information available                        |  |
| <b>Partition Coefficient (n-octanol/water)</b> |   |  |
| <b>Component</b>                               | <b>log Pow</b>                                  |  |
| Ethylene dichloride                            | 1.45  |  |
| <b>Vapor Pressure</b>                          | 65 mmHg @ 29 °C                                 |  |
| <b>Density / Specific Gravity</b>              | 1.250   |  |
| <b>Bulk Density</b>                            | Not applicable                                  | Liquid                                   |
| <b>Vapor Density</b>                           | 3.4   | (Air = 1.0)                              |
| <b>Particle characteristics</b>                | Not applicable (liquid)                         |  |

## 9.2. Other information

|                             |   |
|-----------------------------|---|
| <b>Molecular Formula</b>    | C2 H4 Cl2                                   |
| <b>Molecular Weight</b>     | 98.96                                       |
| <b>Explosive Properties</b> | Vapors may form explosive mixtures with air |
| <b>Evaporation Rate</b>     | 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

|                                 |  |
|---------------------------------|--|
| <b>Hazardous Polymerization</b> | Hazardous polymerization does not occur. |
| <b>Hazardous Reactions</b>      | 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 (CO<sub>2</sub>). 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 )<br>413 mg/kg ( Mouse ) | 4890 mg/kg ( Rabbit ) | 28.79 mg/L ( Rat ) 1h<br>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 mm<sup>2</sup> /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. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

### 11.2. Information on other hazards



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**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. .

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

**12.2. Persistence and degradability** Not readily biodegradable  
**Persistence** 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

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application specific.

## 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     |

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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) |
|---------------------|----------|--|--|---|
| Ethylene dichloride | 107-06-2 | Carcinogenic Category 1B, Article 57<br>Application date: May 22, 2016<br>Sunset date: November 22, 2017<br>Exemption - None | Use restricted. See entry 28.<br>(see link for restriction details)<br>Use restricted. See entry 75.<br>(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<br>List of chemicals subject to export notification procedure (referred to in Article 8)  | ANNEX I - PART 2<br>List of chemicals qualifying for PIC notification (referred to in Article 11) | ANNEX I - PART 3<br>List of chemicals subject to the PIC procedure (referred to in Articles 13 and 14) |
|---|--|---|--|
| Ethylene dichloride<br>107-06-2 ( >95 ) | p(1) — pesticide in the group of plant protection products<br>b — ban (for the category or categories concerned)<br><br>p(2) — other pesticide including biocides<br>b — ban (for the category or categories concerned)<br><br>i(2) — industrial chemical for public<br>Ref — Please refer to PIC circular at <a href="http://www.pic.int/">www.pic.int/</a> | -   | 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

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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

| Component           | Germany - Water Classification (AwSV) | Germany - TA-Luft Class   |
|---------------------|---------------------------------------|---|
| Ethylene dichloride | WGK3                                  | Krebserzeugende Stoffe - Class III : 1 mg/m <sup>3</sup><br>(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<br>107-06-2 ( >95 ) | Persistent Organic Pollutants (POPs)<br>Prohibited and Restricted Substances                                   |   | Annex I - Present<br>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

H302 - Harmful if swallowed

H331 - Toxic if inhaled

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H350 - May cause cancer

H225 - Highly flammable liquid and vapor

### 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

**TWA** - Time Weighted Average

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

**LD50** - Lethal Dose 50%

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**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**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

<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.

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**Revision Summary** SDS sections updated.

**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**