

SAFETY DATA SHEET

Creation Date 17-Nov-2004

Revision Date 18-Dec-2025

Revision Number 6

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

1. Identification

Product Name 1,2-Dichloropropane

Cat No. : AC113670000; AC113670010; AC113670050; AC113670500;
AC113672500

CAS No 78-87-5
Synonyms Propylene dichloride

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

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

2. Hazard(s) identification

Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

| | |
|------------------------------------|-------------|
| Flammable liquids | Category 2 |
| Acute oral toxicity | Category 4 |
| Acute Inhalation Toxicity - Vapors | Category 4 |
| Carcinogenicity | Category 1B |

Label Elements

Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor

May cause cancer
Harmful if swallowed or if inhaled



Precautionary Statements

Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep container tightly closed
Ground and bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting equipment
Wear protective gloves/protective clothing/eye protection/face protection
Take action to prevent static discharges
Use non-sparking tools

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Skin

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

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Fire

In case of fire: Use CO₂, dry chemical, or foam to extinguish

Storage

Store locked up

Store in a well-ventilated place. Keep cool

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

WARNING. Cancer - <https://www.p65warnings.ca.gov/>.

3. Composition/information on Ingredients

| Component | CAS No | Weight % |
|---------------------|---------|----------|
| 1,2-Dichloropropane | 78-87-5 | > 95 |

4. First-aid measures

General Advice

If symptoms persist, call a physician.

| | |
|--|--|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| Inhalation | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |
| Most important symptoms and effects | None reasonably foreseeable. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|---|
| Suitable Extinguishing Media | Water spray, carbon dioxide (CO ₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | 15 °C / 59 °F |
| Method - | No information available |
| Autoignition Temperature | 557 °C / 1034.6 °F |
| Explosion Limits | |
| Upper | 14.50% |
| Lower | 3.40% |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

Flammable. Vapors may travel to source of ignition and flash back. Will form explosive mixtures with air. Containers may explode when heated. Vapors may form explosive mixtures with air.

Hazardous Combustion Products

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

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
1

Flammability
3

Instability
0

Physical hazards
N/A

6. Accidental release measures

| | |
|---|---|
| Personal Precautions | Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges. |
| Environmental Precautions | Should not be released into the environment. Do not flush into surface water or sanitary sewer system. |
| Methods for Containment and Clean Up | Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |

7. Handling and Storage

| | |
|-----------------|---|
| Handling | Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. 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. |
| Storage. | Keep away from heat, sparks and flame. Flammables area. Keep container tightly closed in a dry and well-ventilated place. Incompatible Materials. Acids. Bases. Metals. Finely powdered metals. Strong oxidizing agents. |

8. Exposure controls / personal protection

Exposure Guidelines

| Component | ACGIH TLV | OSHA PEL | NIOSH | Mexico OEL (TWA) |
|---------------------|-------------|--|---------------|------------------|
| 1,2-Dichloropropane | TWA: 10 ppm | (Vacated) TWA: 75 ppm (Vacated) TWA: 350 mg/m ³ (Vacated) STEL: 110 ppm (Vacated) STEL: 510 mg/m ³ TWA: 75 ppm TWA: 350 mg/m ³ | IDLH: 400 ppm | TWA: 10 ppm |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

Personal Protective Equipment

| | |
|---------------------------------|---|
| Eye/face Protection | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. |
| Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
| Respiratory Protection | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 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. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical and chemical properties

Appearance

Physical State

Liquid

Color

Clear

Odor

No information available

Odor Threshold

No information available

Property

Melting Point/Range

-100 °C / -148 °F

Softening Point

No data available

Boiling Point/Range

95 - 96 °C / 203 - 204.8 °F

Remarks

• Method

@ 760 mmHg

| | | |
|--|---|--|
| Flash Point | 15 °C / 59 °F | Method - No information available |
| Flammability (liquid) | Highly flammable | On basis of test data |
| Flammability (solid,gas) | Not applicable | Liquid |
| Explosion Limits | Lower 0.15 Upper 0.03 | |
| Autoignition Temperature | 557 °C / 1034.6 °F | |
| Decomposition Temperature | No data available | |
| pH | No information available | |
| Viscosity | No data available | |
| Water Solubility | Soluble | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Component | log Pow | |
| 1,2-Dichloropropane | 2.28 | |
| Vapor Pressure | No data available | |
| Density / Specific Gravity | 1.156 | |
| Bulk Density | Not applicable | Liquid |
| Vapor Density | No data available | (Air = 1.0) |
| Particle characteristics | Not applicable (liquid) | |
| Other Information | | |
| Molecular Formula | C3 H6 Cl2 | |
| Molecular Weight | 112.99 | |
| Explosive Properties | Vapors may form explosive mixtures with air | |

10. Stability and reactivity

| | |
|---|---|
| Reactive Hazard | None known, based on information available |
| Stability | No information available. |
| Conditions to Avoid | Keep away from open flames, hot surfaces and sources of ignition. Excess heat. Incompatible products. |
| Incompatible Materials | Acids, Bases, Metals, Finely powdered metals, Strong oxidizing agents |
| Hazardous Decomposition Products | Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen chloride |
| Hazardous Polymerization | No information available. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Information on expected route of exposure

| | |
|-------------------|------------------------------------|
| Inhalation | Not an expected route of exposure. |
| Ingestion | May be harmful if swallowed. |
| Eyes | Avoid contact with eyes. |
| Skin | Avoid contact with skin. |

Toxicology data for the components

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---------------------|---------------------------|-------------------------------|-----------------------------|
| 1,2-Dichloropropane | LD50 = 1900 mg/kg (Rat) | LD50 = 10100 mg/kg (Rabbit) | LC50 = 14 mg/L (Rat) 10 h |

| | |
|---|--------------------------|
| Toxicologically Synergistic Products | No information available |
|---|--------------------------|

(b) skin corrosion/irritation; No data available

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

(d) respiratory or skin sensitization;

Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; Category 1B

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

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|---------------------|---------|---------|------------|------------|------|------------|
| 1,2-Dichloropropane | 78-87-5 | Group 1 | Not listed | Not listed | X | Not listed |

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(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.

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

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

Contains a substance which is: Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---------------------|------------------|--|---|--------------------------------------|
| 1,2-Dichloropropane | Not listed | LC50: 119 - 135 mg/L, 96h flow-through (Pimephales promelas) LC50: = 127 mg/L, 96h static (Pimephales promelas) LC50: 220 - 340 mg/L, 96h static (Lepomis macrochirus) | EC50 = 58.9 mg/L 5 min EC50 = 93.4 mg/L 30 min | LC50: = 45 mg/L, 48h (Daphnia magna) |

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

| Component | log Pow |
|---------------------|---------|
| 1,2-Dichloropropane | 2.28 |

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

| Component | RCRA - U Series Wastes | RCRA - P Series Wastes |
|-------------------------------|------------------------|------------------------|
| 1,2-Dichloropropane - 78-87-5 | U083 | - |

14. Transport information

DOT

UN-No UN1279
 Proper Shipping Name 1,2-DICHLOROPROPANE
 Hazard Class 3
 Packing Group II

TDG

UN-No UN1279
 Proper Shipping Name 1,2-DICHLOROPROPANE
 Hazard Class 3
 Packing Group II

IATA

UN-No UN1279
 Proper Shipping Name 1,2-DICHLOROPROPANE
 Hazard Class 3
 Packing Group II

IMDG/IMO

UN-No UN1279
 Proper Shipping Name 1,2-DICHLOROPROPANE
 Hazard Class 3
 Packing Group II

15. Regulatory Information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|---------------------|---------|------|---|-----------------------------|
| 1,2-Dichloropropane | 78-87-5 | X | ACTIVE | T |

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export Not applicable

| Component | CAS No | TSCA 12(b) - Notices of Export |
|---------------------|---------|--------------------------------|
| 1,2-Dichloropropane | 78-87-5 | Section 4 |

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|---------------------|---------|-----|-----|-----------|-------|------|------|------|-------|----------|
| 1,2-Dichloropropane | 78-87-5 | X | - | 201-152-2 | X | X | X | X | X | KE-10202 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Component | CAS No | Weight % | SARA 313 - Threshold Values % | SARA 313 - Reporting thresholds |
|---------------------|---------|----------|-------------------------------|---------------------------------|
| 1,2-Dichloropropane | 78-87-5 | > 95 | 0.1 % | - |

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|---------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| 1,2-Dichloropropane | X | - | - | X |

Clean Air Act

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---------------------|-----------|-------------------------|-------------------------|
| 1,2-Dichloropropane | X | | - |

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component | Hazardous Substances RQs | CERCLA Extremely Hazardous Substances RQs | SARA Reportable Quantity (RQ) |
|---------------------|--------------------------|---|-------------------------------|
| 1,2-Dichloropropane | 1000 lb | - | 1000 lb 454 kg |

California Proposition 65

This product contains the following Proposition 65 chemicals.

| Component | CAS No | California Prop. 65 | Prop 65 NSRL | Category |
|---------------------|---------|---------------------|--------------|------------|
| 1,2-Dichloropropane | 78-87-5 | Carcinogen | 9.7 µg/day | Carcinogen |

U.S. State Right-to-Know Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------------|---------------|------------|--------------|----------|--------------|
| 1,2-Dichloropropane | X | X | X | X | X |

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations**Mexico - Grade**

No information available

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) |
|---------------------|---------|---|--|---|
| 1,2-Dichloropropane | 78-87-5 | - | Use restricted. See entry 28. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details) | - |

REACH links<https://echa.europa.eu/substances-restricted-under-reach>**Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---------------------|---------|----------|------------------------------|---------------------------|--|
| 1,2-Dichloropropane | 78-87-5 | Listed | Not applicable | Not applicable | Not applicable |

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Other International Regulations

| 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 | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---------------------|---------|---|--|----------------------------|------------------------------------|
| 1,2-Dichloropropane | 78-87-5 | Not applicable | Not applicable | Not applicable | Annex I - Y45 |

16. Other Information**Prepared By**Product stewardship (Regulatory Affairs)
Thermo Fisher Scientific
email - bege1.sdsdesk@thermofisher.com**Creation Date**

17-Nov-2004

Revision Date

18-Dec-2025

Print Date

18-Dec-2025

Revision Summary

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200,

2024), May 20, 2024, effective July 19, 2024.

Disclaimer

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

End of SDS