



SAFETY DATA SHEET

Revision Date 18-Dec-2025

Revision Number 7

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 | 3-Chloro-1,2-propanediol |
| Cat No. : | AC148120000; AC148120010; AC148120025; AC148120250; AC148125000 |
| CAS No | 96-24-2 |
| Synonyms | Glycerol-alpha-chlorohydrine |
| 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).

| | |
|--|-------------|
| Corrosive to metals | Category 1 |
| Acute oral toxicity | Category 3 |
| Acute Inhalation Toxicity - Vapors | Category 2 |
| Skin Corrosion/Irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Carcinogenicity | Category 2 |
| Reproductive Toxicity | Category 1B |
| Specific target organ toxicity (single exposure) | Category 1 |
| Target Organs - Respiratory system. | |
| Specific target organ toxicity - (repeated exposure) | Category 1 |

Label Elements

Signal Word

Danger

Hazard Statements

May be corrosive to metals
Toxic if swallowed
Causes skin irritation
Causes serious eye damage
Fatal if inhaled
Suspected of causing cancer
May damage fertility or the unborn child
Causes damage to organs
Causes damage to organs through prolonged or repeated exposure

**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
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection
Keep only in original packaging
Wear protective gloves/protective clothing/eye protection/face protection

Response

IF exposed: Call a POISON CENTER or doctor

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing
Immediately call a POISON CENTER or doctor

Skin

IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor
Rinse mouth

Spills

Absorb spillage to prevent material damage

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in corrosive resistant polypropylene container with a resistant inliner
Store in a dry place

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 % |
|-------------------------------|---------|----------|
| 3-Chloro-1,2-dihydroxypropane | 96-24-2 | <=100 |

4. 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. |
| 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. |
| Ingestion | Do NOT induce vomiting. Call a physician or poison control center immediately. |
| Most important symptoms and effects | None reasonably foreseeable. Causes severe eye damage. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

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|---|--|
| Suitable Extinguishing Media | Water spray. Carbon dioxide (CO ₂). Dry chemical. Water mist may be used to cool closed containers. Chemical foam. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | 135 °C / 275 °F |
| Method - | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | No information available |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion ProductsCarbon monoxide (CO). Carbon dioxide (CO₂). Phosgene. Hydrogen chloride gas.**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. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 4 | 0 | 1 | N/A |

6. Accidental release measures

| | |
|----------------------------------|---|
| Personal Precautions | Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. |
| Environmental Precautions | Should not be released into the environment. |

Methods for Containment and Clean Up Keep in suitable, closed containers for disposal. Soak up with inert absorbent material.

7. Handling and Storage

| | |
|-----------------|---|
| Handling | Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. |
| Storage. | Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep under nitrogen. Store under an inert atmosphere. Keep container tightly closed in a dry and well-ventilated place. Air sensitive. Incompatible Materials. Acids. Bases. Strong oxidizing agents. |

8. Exposure controls / personal protection

| | |
|----------------------------|---|
| Exposure Guidelines | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
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| Engineering Measures | Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. |
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Personal Protective Equipment

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| 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. |
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| Skin and body protection | Wear appropriate protective gloves and clothing to prevent skin exposure. |
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|-------------------------------|---|
| 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. |
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|---------------------------------|---|
| Recommended Filter type: | Organic gases and vapours filter. Type A. Brown. conforming to EN14387. |
|---------------------------------|---|

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| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |
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9. Physical and chemical properties**Appearance**

| | |
|-----------------------|--------------------------|
| Physical State | Liquid |
| Color | Light yellow |
| Odor | No information available |
| Odor Threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>• Method</u> |
|--|--------------------------|----------------|--|
| Melting Point/Range | -40 °C / -40 °F | | |
| Softening Point | No data available | | |
| Boiling Point/Range | 213 °C / 415.4 °F | | |
| Flash Point | 135 °C / 275 °F | | Method - No information available |
| Flammability (liquid) | No data available | | |
| Flammability (solid,gas) | Not applicable | | Liquid |
| Explosion Limits | No data available | | |
| | | | |
| Autoignition Temperature | No data available | | |
| Decomposition Temperature | No data available | | |
| pH | 2-6 | 500 g/l aq.sol | |
| Viscosity | 215 mPa.s at 20 °C | | |
| Water Solubility | Soluble | | |
| Solubility in other solvents | No information available | | |
| Partition Coefficient (n-octanol/water) | | | |
| Component | log Pow | | |
| 3-Chloro-1,2-dihydroxypropane | 0.503 | | |
| Vapor Pressure | 0.1 mbar @ 20 °C | | |
| Density / Specific Gravity | 1.322 | | |
| Bulk Density | Not applicable | Liquid | |
| Vapor Density | No data available | (Air = 1.0) | |
| Particle characteristics | Not applicable (liquid) | | |
| | | | |
| Other Information | | | |
| Molecular Formula | C3 H7 Cl O2 | | |
| Molecular Weight | 110.54 | | |

10. Stability and reactivity

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|---|--|
| Reactive Hazard | None known, based on information available |
| Stability | Stable under normal conditions. Hygroscopic. |
| Conditions to Avoid | Incompatible products. Exposure to moist air or water. |
| Incompatible Materials | Acids, Bases, Strong oxidizing agents |
| Hazardous Decomposition Products | Carbon monoxide (CO), Carbon dioxide (CO ₂), Phosgene, Hydrogen chloride gas |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

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|--|---|
| Information on expected route of exposure | |
| Inhalation | Avoid breathing vapors or mists. |
| Ingestion | May be harmful if swallowed. |
| Eyes | Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. Vapor may cause irritation. |
| Skin | Avoid contact with skin. Skin Corrosion/Irritation. Prolonged skin contact may defat the skin and produce dermatitis. Harmful in contact with skin. |

Toxicology data for the components

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------------------|-------------------------|-------------|---------------------------|
| 3-Chloro-1,2-dihydroxypropane | LD50 = 26 mg/kg (Rat) | - | LC50 = 88 ppm (Rat) 4 h |

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|--|---|
| Toxicologically Synergistic Products | No information available |
| (b) skin corrosion/irritation; | Category 2 Based on available data, the classification criteria are not met |
| (c) serious eye damage/irritation; | Category 1 Based on available data, the classification criteria are not met |
| (d) respiratory or skin sensitization; Respiratory Skin | Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met |
| (e) germ cell mutagenicity; | Based on available data, the classification criteria are not met Substances which cause concern for man owing to possible mutagenic effects but for which the available information is not adequate for making a satisfactory assessment |
| (f) carcinogenicity; | Category 2 Based on available data, the classification criteria are not met The table below indicates whether each agency has listed any ingredient as a carcinogen |

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|--------------------------------|---------|----------|------------|------------|------|------------|
| 3-Chloro-1,2-dihydroxy propane | 96-24-2 | Group 2B | 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; | Category 1B Based on available data, the classification criteria are not met |
|-----------------------------------|--|

Teratogenicity

Teratogenic effects have occurred in experimental animals.

| | |
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| (h) STOT-single exposure; | Category 1 Based on available data, the classification criteria are not met |
|----------------------------------|--|

Results / Target organs

Respiratory system.

| | |
|------------------------------------|--|
| (i) STOT-repeated exposure; | Category 1 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 |
|-------------------------------|--|

| | |
|---|--|
| Symptoms / effects, both acute and delayed | Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |
|---|--|

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

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| Endocrine Disrupting Properties | This product does not contain any known or suspected endocrine disruptors. |
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12. Ecological information

Ecotoxicity

Do not empty into drains. .

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|-------------------------------|------------------|-----------------|---|------------|
| 3-Chloro-1,2-dihydroxypropane | Not listed | Not listed | EC50 = 4209 mg/L 30 min EC50 = 5649 mg/L 5 min | Not listed |

Persistence and Degradability Persistence is unlikely

Bioaccumulation/ Accumulation No information available.

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

| Component | log Pow |
|-------------------------------|---------|
| 3-Chloro-1,2-dihydroxypropane | 0.503 |

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.

14. Transport information

DOT

UN-No UN2689
Proper Shipping Name GLYCEROL ALPHA-MONOCHLOROHYDRIN
Hazard Class 6.1
Packing Group III

TDG

UN-No UN2689
Proper Shipping Name GLYCEROL ALPHA-MONOCHLOROHYDRIN
Hazard Class 6.1
Packing Group III

IATA

UN-No UN2689
Proper Shipping Name GLYCEROL alpha-MONOCHLOROHYDRIN
Hazard Class 6.1
Packing Group III

IMDG/IMO

UN-No UN2689
Proper Shipping Name GLYCEROL-alpha-MONOCHLOROHYDRIN
Hazard Class 6.1
Packing Group III

15. Regulatory Information

United States of America Inventory

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|-------------------------------|---------|------|---|-----------------------------|
| 3-Chloro-1,2-dihydroxypropane | 96-24-2 | X | ACTIVE | - |

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

International Inventories

China, X = listed, Australia, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL).

| Component | CAS No | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|-------------------------------|---------|-----|------|-----------|-------|------|------|------|-------|----------|
| 3-Chloro-1,2-dihydroxypropane | 96-24-2 | - | X | 202-492-4 | X | X | X | X | X | KE-05872 |

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

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) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product contains the following Proposition 65 chemicals.

| Component | CAS No | California Prop. 65 | Prop 65 NSRL | Category |
|-------------------------------|---------|---------------------|--------------|------------|
| 3-Chloro-1,2-dihydroxypropane | 96-24-2 | Carcinogen | - | Carcinogen |

U.S. State Right-to-Know Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------------------|---------------|------------|--------------|----------|--------------|
| 3-Chloro-1,2-dihydroxypropane | - | X | - | X | - |

U.S. Department of Transportation

Reportable Quantity (RQ): N

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 Not applicable

| 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) |
|-------------------------------|---------|---|---|---|
| 3-Chloro-1,2-dihydroxypropane | 96-24-2 | - | - | - |

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) |
|-------------------------------|---------|----------|------------------------------|---------------------------|--|
| 3-Chloro-1,2-dihydroxypropane | 96-24-2 | 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) |
|-------------------------------|---------|---|--|----------------------------|------------------------------------|
| 3-Chloro-1,2-dihydroxypropane | 96-24-2 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other Information
Prepared By

Product stewardship (Regulatory Affairs)
 Thermo Fisher Scientific
 email - begel.sdsdesk@thermofisher.com

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