

# 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**

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Most important symptoms and effects</b>	None reasonably foreseeable. Causes severe eye damage. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
<b>Notes to Physician</b>	Treat symptomatically

**5. Fire-fighting measures**

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

**Specific Hazards Arising from the Chemical**

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

**Hazardous Combustion Products**Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). 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**  
4

**Flammability**  
0

**Instability**  
1

**Physical hazards**  
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.

**Engineering Measures**

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

**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**

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		
Flammability (liquid)	No data available		<b>Method -</b> No information 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	<b>log Pow</b>		
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)		
<b>Other Information</b>			
Molecular Formula	C3 H7 Cl O2		
Molecular Weight	110.54		

## 10. Stability and reactivity

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 <sub>2</sub> ), Phosgene, Hydrogen chloride gas
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

## 11. Toxicological information

### 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	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																			
	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																			
<table><tr><th>Component</th><th>CAS No</th><th>IARC</th><th>NTP</th><th>ACGIH</th><th>OSHA</th><th>Mexico</th></tr><tr><td>3-Chloro-1,2-dihydroxy propane</td><td>96-24-2</td><td>Group 2B</td><td>Not listed</td><td>Not listed</td><td>X</td><td>Not listed</td></tr></table>							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
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.																			
(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.																			
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

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**