

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Substance name : Chloroglycerine
 Product form : Substance
 Product code : CG

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

1.3. Details of the supplier of the safety data sheet

Dixie Chemical Company Inc.
 10601 Bay Area Blvd
 Pasadena TX 77507
 Phone: 281-474-3271
 Email: msds@dixiechemical.com

1.4. Emergency telephone number

Emergency number : CHEMTREC® (800) 424-9300 Domestic, (703) 527-3887 International

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Met. Corr. 1	H290
Acute Tox. 2 (Oral)	H300
Acute Tox. 1 (Inhalation:vapour)	H330
Skin Irrit. 2	H315
Eye Dam. 1	H318
Carc. 2	H351
Repr. 1B	H360
STOT SE 1	H370
STOT RE 1	H372

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

GHS06

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H290 - May be corrosive to metals
 H300+H330 - Fatal if swallowed or if inhaled
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H351 - Suspected of causing cancer
 H360 - May damage fertility or the unborn child
 H370 - Causes damage to organs
 H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P234 - Keep only in original container
 P260 - Do not breathe fume, mist, vapours
 P264 - Wash hands, forearms and face thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear eye protection, face protection, protective clothing, protective gloves
 P284 - [In case of inadequate ventilation] wear respiratory protection
 P301+P310 - IF SWALLOWED: Immediately call a doctor
 P302+P352 - If on skin: Wash with plenty of soap and water
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P308+P313 - If exposed or concerned: Get medical advice/attention
 P310 - Immediately call a doctor
 P320 - Specific treatment is urgent (see first aid instructions on this label)
 P330 - Rinse mouth
 P332+P313 - If skin irritation occurs: Get medical advice/attention

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P362 - Take off contaminated clothing and wash before reuse
P390 - Absorb spillage to prevent material damage
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P406 - Store in corrosive resistant container with a resistant inner liner
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier	%
Chloroglycerine (3-Chloro-1,2-dihydroxypropane)	(CASRN) 96-24-2	60 - 100
<i>Chemical components disclosed above are those requiring disclosure in accordance with the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)</i>		

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

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

Symptoms/injuries : Fatal if swallowed. Fatal if inhaled. Causes skin irritation. Causes serious eye damage. Suspected of causing cancer. May damage fertility. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. Causes damage to organs.

Symptoms/injuries after inhalation : Fatal if inhaled.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Fatal if swallowed.

Chronic symptoms : Suspected of causing cancer. May damage fertility. May damage the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Dry chemical. Alcohol-resistant foam. carbon dioxide (CO₂). Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No data available

5.3. Advice for firefighters

Firefighting instructions : Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

Protection during firefighting : Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ventilate area. Evacuate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing. Cover the spilled liquid product with foam to slow down evaporation. Prevent entry to sewers and public waters.

Methods for cleaning up : Wear suitable protective clothing. Soak up residue with an absorbent such as clay, sand or other suitable material. Place spilled materials in leak proof, labeled containers. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Handle small quantities under a lab hood. Prevent product vapors decomposition from contacting hot spots. Prevent product vapors decomposition from electric arc action (welding). Preferably transfer by pump or gravity.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. Store away from incompatible materials. Keep in a bonded area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

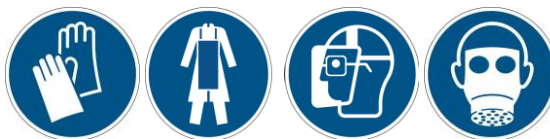
8.1. Control parameters

3-Chloro-1,2-dihydroxypropane (96-24-2)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Wear chemically impervious apron over labcoat and full coverage clothing. Wear chemical goggles and face shield in combination. Insufficient ventilation: wear respiratory protection.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Change contaminated gloves immediately. Suitable gloves for this specific application can be recommended by the glove supplier. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Eye protection : Chemical goggles and face shield must be worn in combination.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

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Respiratory protection : Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Molecular mass : 110.48 g/mol
Color : Clear to straw colored.
Odor : Slight.
Odor Threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : -52.2 to -40.3 °C (125.9 to 104.5°F)
Freezing point : No data available
Boiling point : 115 °C (239°F) at 10 mm Hg
213°C (415°F) at 760 mm Hg
Flash point : 132 °C 270°F (PMCC, ASTM D93)
Auto-ignition temperature : 365 °C (689°F)
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : < 1 mm Hg @ 25°C (77°F)
Relative vapour density at 20 °C : No data available
Relative density : 1.31 - 1.325 @ 25°C (77°F)
Solubility : Soluble. Miscible with water.
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : 4.0 - 21.6 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Incompatible materials. Excessive temperatures. Do not overheat.

10.5. Incompatible materials

Strong bases. Oxidizing agents. Hot water. Metal salts. Non iron metals (aluminum, magnesium, zinc).

10.6. Hazardous decomposition products

Carbon monoxide. Hydrochloric acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Inhalation:vapour: Fatal if inhaled.

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

LD50 oral rat : 150 mg/kg bw

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3-Chloro-1,2-dihydroxypropane (96-24-2)	
LC50 inhalation rat (mg/l)	0.28 - 1.13 mg/L

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.

3-Chloro-1,2-dihydroxypropane (96-24-2)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Causes damage to organs.
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Fatal if inhaled.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Fatal if swallowed.
Chronic symptoms	: Suspected of causing cancer. May damage fertility. May damage the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Estimated to be toxic to fish.

3-Chloro-1,2-dihydroxypropane (96-24-2)	
LC50 fishes	2150 mg/l 24h
EC50 aquatic invertebrates	> 100 mg/l 48h (NOEC = 100 mg/l 48h)
EC50 aquatic algae and cyanobacteria	> 100 mg/l 72h (NOEC = 100 mg/l 72h)

12.2. Persistence and degradability

Estimated to not be persistent in the environment.

12.3. Bioaccumulative potential

Estimated to not be bioaccumulative in the environment.

12.4. Mobility in soil

Adsorption coefficient

Type: Koc

Conclusion: The Koc was reported to be 1, using the EpiSuite QSAR tool

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Do not discharge to public wastewater systems without permit of pollution control authorities.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: For packaging: Empty the containers. Dispose of as an unused product. To avoid unnecessary treatments, use designated containers or rinse the empty containers with a low volatility hydrocarbon. Treat and dispose of the effluent same as waste.

SECTION 14: Transport information

In accordance with DOT

Transport document description	: UN2689 Glycerol alpha-monochlorohydrin, 6.1, III
UN-No.(DOT)	: 2689
DOT NA no.	: UN2689
Proper Shipping Name (DOT)	: Glycerol alpha-monochlorohydrin
Department of Transportation (DOT) Hazard Classes	: 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132

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Hazard labels (DOT) : 6.1 - Poison inhalation hazard



Packing group (DOT) : III - Minor Danger

DOT Quantity Limitations Passenger aircraft/rail : 60 L
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 220 L
CFR 175.75)

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

UN-No.(IATA) : 1921

SECTION 15: Regulatory information

15.1. US Federal regulations

Chloroglycerine

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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15.2. International regulations

All chemical substances in this product are listed on the Chinese Chemical Inventory of Existing Chemical Substances (IECSC) or are exempt
All chemical substances in this product are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt
All chemical substances in this product are listed on the Canadian Non-Domestic Substances List (NDSL) or are exempt
All chemical substances in this product are listed on the European EINECS Inventory or the ELINCS list or are exempt
All chemical substances in this product are listed on the Japanese Existing and New Chemical Substances Inventory (ENCS) or are exempt
All chemical substances in this product are listed on the Korean Existing Chemicals Inventory (KECI) or are exempt
All chemical substances in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or are exempt
All chemical substances in this product are listed on the Phillipines Inventory of Chemicals and Chemical Substances (PICCS) or are exempt
All chemical substances in this product are listed on the Taiwan Chemical Substance Inventory (TSCI) or are exempt

15.3. US State regulations

California Proposition 65

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

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

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	

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

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Indication of changes : Revision 07/07/2015

Other information : Author: NMR.

HMIS III Rating

Health : 3*

Flammability : 1

Physical : 1

Personal Protection :

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product