



Material Safety Data Sheet

NFPA 	HMIS <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; font-weight: bold;">2</td> </tr> <tr> <td style="background-color: #FFCCCC;">Fire Hazard</td> <td style="text-align: center; font-weight: bold;">1</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; font-weight: bold;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	Personal Protective Equipment  See Section 15.
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							

Section 1. Chemical Product and Company Identification		<i>Page Number: 1</i>
Common Name/Trade Name	Glycidol	Catalog Number(s) G2016
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS# 556-52-5
Commercial Name(s)	Not available.	RTECS UB4375000
Synonym	2,3-Epoxy-1-propanol; 2,3-Epoxypropanol; 3-Hydroxy-1,2-epoxypropane; Epiphydrin alcohol; Glycidol alcohol; Methanol, oxiranyl-; Oxiranemethanol	TSCA TSCA 8(b) inventory: Glycidol
Chemical Name	1-Propanol, 2,3-epoxy	CI# Not available.
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000
Chemical Formula	C3-H6-O2	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients					
		<i>Exposure Limits</i>			
Name	CAS #	TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	% by Weight
1) Glycidol	556-52-5	25			100
Toxicological Data on Ingredients	Glycidol: ORAL (LD50): Acute: 431 mg/kg [Mouse]. 420 mg/kg [Rat]. DERMAL (LD50): Acute: 1980 mg/kg [Rabbit]. VAPOR (LC50): Acute: 450 ppm 4 hours [Mouse]. 580 ppm 8 hours [Rat].				

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator). Severe over-exposure can result in death.

Potential Chronic Health Effects

CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH. Classified 2A (Probable for human.) by IARC, 2 (Some evidence. anticipated carcinogen) by NTP.

MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance is toxic to eyes.

The substance may be toxic to lungs, the nervous system, upper respiratory tract, skin, central nervous system (CNS).

Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4. First Aid Measures**Eye Contact**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion

Not available.

Section 5. Fire and Explosion Data**Flammability of the Product**

Combustible.

Auto-Ignition Temperature

415°C (779°F)

Flash Points

CLOSED CUP: 71°C (159.8°F).

Flammable Limits

Not available.

Products of Combustion

These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances

Flammable in presence of open flames and sparks, of heat.

Explosion Hazards in Presence of Various Substances

Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions

SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards

COMBUSTIBLE.

Special Remarks on Explosion Hazards

Not available.

Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals, acids, alkalis.
Storage	Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 8°C (46.4°F). Refrigerate.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	TWA: 150 (mg/m ³) from OSHA (PEL) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States] TWA: 25 (ppm) from NIOSH [United States] TWA: 75 (mg/m ³) from NIOSH [United States] TWA: 25 STEL: 100 (ppm) [Canada] TWA: 76 (ppm) [Canada] TWA: 303 (mg/m ³) [Canada] TWA: 2 (ppm) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid. (Viscous liquid.)	Odor	Not available.
Molecular Weight	74.08 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Colorless.
Boiling Point	160°C (320°F)		
Melting Point	-45°C (-49°F)		
Critical Temperature	Not available.		
Specific Gravity	1.115 (Water = 1)		
Vapor Pressure	0.1 kPa (@ 25°C)		
Vapor Density	2.15 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		

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Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water, diethyl ether.
Solubility	Soluble in cold water, diethyl ether. Soluble in alcohol.

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources (flames, sparks, static), incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, metals, acids, alkalis.
Corrosivity	Not available.
Special Remarks on Reactivity	Incompatible with nitrates.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Inhalation.
Toxicity to Animals	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 420 mg/kg [Rat]. Acute dermal toxicity (LD50): 1980 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 450 4 hours [Mouse].
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH. Classified 2A (Probable for human.) by IARC, 2 (Some evidence. anticipated carcinogen) by NTP. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. Causes damage to the following organs: eyes. May cause damage to the following organs: lungs, the nervous system, upper respiratory tract, skin, central nervous system (CNS).
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects. May cause cancer. May affect genetic material (mutagenic).
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes moderate skin irritation. It can be absorbed through the skin in harmful amounts. Eyes: Causes moderate to severe eye irritation. May cause severe but reversible corneal injury. Inhalation: Harmful if inhaled. Moderately toxic upon inhalation. Causes respiratory tract (nose, throat) and mucous membrane irritation. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, difficulty breathing, salivation, nasal discharge, headache, nausea, vomiting. May also cause central nervous system stimulation/depression. Ingestion: Harmful if swallowed. May cause digestive tract irritation. May cause initial central nervous system excitation followed by central nervous system depression. Chronic Potential Health Effects: Inhalation: Prolonged or repeated inhalation may cause bronchitis to develop with cough, phlegm, and/or shortness of breath. It may also affect brain, behavior/central nervous system (personality changes of depression, anxiety, or irritability). Ingestion: Prolonged or repeated ingestion may affect the brain (degenerative changes), kidneys (renal failure, tubular necrosis), endocrine system.

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Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Section 14. Transport Information

DOT Classification	CLASS 6.1: Poisonous material.
Identification	UNNA: 2810 : Toxic Liquid, Organic, n.o.s. (2,3-Epoxy-1-propanol) PG: III
Special Provisions for Transport	Not available.
DOT (Pictograms)	

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	<p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Glycidol</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Glycidol</p> <p>Illinois toxic substances disclosure to employee act: Glycidol</p> <p>Rhode Island RTK hazardous substances: Glycidol</p> <p>Pennsylvania RTK: Glycidol</p> <p>Minnesota: Glycidol</p> <p>Massachusetts RTK: Glycidol</p> <p>New Jersey: Glycidol</p> <p>California Director's List of Hazardous Substances: Glycidol</p> <p>TSCA 8(b) inventory: Glycidol</p> <p>TSCA 4(a) proposed test rules: Glycidol</p>
California Proposition 65 Warnings	<p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Glycidol</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.</p>
Other Regulations	<p>OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).</p> <p>EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 209-128-3).</p> <p>Canada: Listed on Canadian Domestic Substance List (DSL).</p> <p>China: Listed on National Inventory.</p> <p>Japan: Listed on National Inventory (ENCS).</p> <p>Korea: Listed on National Inventory (KECI).</p> <p>Philippines: Listed on National Inventory (PICCS).</p>

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Australia: Listed on AICS.

Other Classifications

WHMIS (Canada) CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
 CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
 CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
 Class D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC) R21/22- Harmful in contact with skin and if swallowed.
 R23- Toxic by inhalation.
 R45- May cause cancer.
 R60- May impair fertility.
 R36/37/38- Irritating to eyes, respiratory system and skin.
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S53- Avoid exposure - obtain special instructions before use.

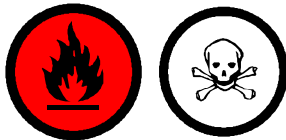
HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	h

National Fire Protection Association (U.S.A.)

Health  Flammability
 Reactivity
 Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves.



Lab coat.



Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information**MSDS Code** 3220G**References** Not available.**Other Special Considerations** Major Uses: Alkylating agent; chemical intermediate for pharmaceuticals, cosmetics, glycerin, surfactants, and polymers; stabilizer in the manufacturer of vinyl polymers; an additive for oil and synthetic hydraulic fluids; diluent in some epoxy resins.

Validated by Sonia Owen on 10/26/2007.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.