



GARDENA, CA
NEW BRUNSWICK, NJ

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	2	Reactivity	0	
Health Hazard	2							
Fire Hazard	2							
Reactivity	0							
		See Section 15.						

Section 1. Chemical Product and Company Identification		<i>Page Number: 1</i>
Common Name/Trade Name	Phenyloxirane	Catalog Number(s) P2209
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	CAS# 96-09-3 or 20780-53-4
Commercial Name(s)	Not available.	RTECS CZ9625000
Synonym	Styrene Oxide; 1,2-Epoxyethylbenzene	TSCA TSCA 8(b) inventory: Phenyloxirane
Chemical Name	Phenyloxirane	CI# Not available.
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000
Chemical Formula	C8-H8-O	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	

Section 2. Composition and Information on Ingredients											
Name	CAS #	Exposure Limits			% by Weight						
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)							
1) Phenyloxirane	96-09-3 or 20780-53-4				100						
Toxicological Data on Ingredients <table style="width: 100%; border: none;"> <tr> <td style="width: 20%;">Phenyloxirane:</td> <td></td> </tr> <tr> <td>ORAL (LD50):</td> <td>Acute: 2000 mg/kg [Rat]. 1500 mg/kg [Mouse].</td> </tr> <tr> <td>DERMAL (LD50):</td> <td>Acute: 890 mg/kg [Rabbit].</td> </tr> </table>						Phenyloxirane:		ORAL (LD50):	Acute: 2000 mg/kg [Rat]. 1500 mg/kg [Mouse].	DERMAL (LD50):	Acute: 890 mg/kg [Rabbit].
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Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (sensitizer).
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Classified 2A (Probable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

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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.
Serious Inhalation	Not available.
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	498°C (928.4°F)
Flash Points	OPEN CUP: 74°C (165.2°F) (NFPA; Lewis, 1992) 79 C (175 F) (Clayton and Clayton, 1994)
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. Non-flammable in presence of shocks.
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	Not available.
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. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions	Keep locked up.. 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, 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 25°C (77°F).

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	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Pleasant. Sweetish.
Molecular Weight	120.15 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Colorless to light yellow.
Boiling Point	194.1°C (381.4°F)		
Melting Point	-35.6°C (-32.1°F)		
Critical Temperature	Not available.		
Specific Gravity	1.0523 (Water = 1)		
Vapor Pressure	0 kPa (@ 20°C)		
Vapor Density	4.3 (Air = 1)		
Volatility	Not available.		
Odor Threshold	0.4 ppm		
Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 1.6		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, methanol, diethyl ether, acetone.		
Solubility	Soluble in methanol, diethyl ether, acetone. Partially soluble in cold water. Soluble with Benzene, Heptane, Alcohol, and Carbon Tetrachloride. Miscible with most organic solvents.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources, incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, alkalis.
Corrosivity	Not available.
Special Remarks on Reactivity	Reacts vigorously with compounds having labile hydrogen, including water, in the presence of catalysts such as acids, bases, and certain salts. Styrene Oxide will polymerize exothermically. Avoid heating above 200 C.
Special Remarks on Corrosivity	Not available.
Polymerization	Yes.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation.
Toxicity to Animals	Acute oral toxicity (LD50): 1500 mg/kg [Mouse]. Acute dermal toxicity (LD50): 890 mg/kg [Rabbit].
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified 2A (Probable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation. Slightly hazardous in case of skin contact (sensitizer).
Special Remarks on Toxicity to Animals	Lowest Published Lethal Dose: LCL [Rat] - Route: Inhalation; Dose: 500 ppm/4H
Special Remarks on Chronic Effects on Humans	May affect genetic material. May cause adverse reproductive effects (fertility, fetotoxicity) and birth defects based on animal data. May cause cancer (tumorigenic) based on animal data.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization. May be harmful if absorbed through skin. Eyes: Causes eye irritation. May cause corneal damage and conjunctivitis. Inhalation: Breathing in vapors may cause respiratory and mucous membrane irritation causing coughing, wheezing, and/or shortness of breath. May also affect behavior/central nervous system with symptoms similar to that of ingestion. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting and diarrhea. May affect behavior/central nervous system (CNS depressant - dizziness, lightheadedness, passing out), liver and brain. May be harmful if swallowed.

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.

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Section 13. Disposal Considerations

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

Section 14. Transport Information

DOT Classification CLASS 6.1: Poisonous material.

Identification : Toxic, Liquid, Organic, n.o.s (Phenyloxirane) UNNA: 2810 PG: III

Special Provisions for Transport Not applicable.

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations 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: Phenyloxirane
 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: Phenyloxirane
 Illinois chemical safety act: Phenyloxirane
 New York release reporting list: Phenyloxirane
 Pennsylvania RTK: Phenyloxirane
 Minnesota: Phenyloxirane
 Massachusetts RTK: Phenyloxirane
 New Jersey: Phenyloxirane
 New Jersey spill list: Phenyloxirane
 Louisiana spill reporting: Phenyloxirane
 California Director's List of Hazardous Substances: Phenyloxirane
 TSCA 8(b) inventory: Phenyloxirane
 SARA 313 toxic chemical notification and release reporting: Phenyloxirane
 CERCLA: Hazardous substances.: Phenyloxirane: 100 lbs. (45.36 kg)

California Proposition 65 Warnings 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: Phenyloxirane

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications	WHMIS (Canada) Not controlled under WHMIS (Canada).		
	<table border="0"> <tr> <td>DSCL (EEC)</td> <td>R21/22- Harmful in contact with skin and if swallowed. R36/38- Irritating to eyes and skin. R45- May cause cancer.</td> <td>S2- Keep out of the reach of children. S36/37- Wear suitable protective clothing and gloves. S46- If swallowed, seek medical advice immediately and show this container or label. S53- Avoid exposure - obtain special instructions before use.</td> </tr> </table>	DSCL (EEC)	R21/22- Harmful in contact with skin and if swallowed. R36/38- Irritating to eyes and skin. R45- May cause cancer.
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HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	2
Reactivity	0
Personal Protection	h

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

Health		Flammability
		Reactivity
		Specific hazard

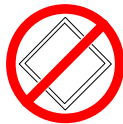
**WHMIS (Canada)
(Pictograms)**



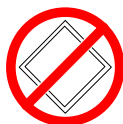
**DSCL (Europe)
(Pictograms)**



**TDG (Canada)
(Pictograms)**



**ADR (Europe)
(Pictograms)**



Protective Equipment



Gloves.



Lab coat.



Vapor respirator. Be sure to use an approved/certified respirator or equivalent.



Splash goggles.

Section 16. Other Information

MSDS Code 3465S

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

Printed 9/13/2006.

CALL (310) 516-8000

[Notice to Reader](#)

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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.