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SAFETY DATA SHEET

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Product #: 479 cis-ROSE OXIDE

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Bedoukian Research, Inc. Emergency Phone Numbers:

21 Finance Drive 1-800-424-9300 Chemtrec (North

America)

Danbury, CT 06810-4133 1-703-527-3887 Chemtrec

(International) UNITED STATES

Phone: 1-203-830-4000 Email: customerservice@bedoukian.com Fax: 1-203-830-4010 Website: http://www.bedoukian.com

Product Code: 479

Product Name: cis-ROSE OXIDE Uses: flavors and fragrances

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### SECTION 2. HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATIONS

HEALTH = 1 FLAMMABILITY = 2 REACTIVITY = 0 PROTECTION = B

LABEL PRECAUTIONARY STATEMENTS
GHS CLASSIFICATION AND LABELLING

The following determinations per the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) have been made:

GHS SIGNAL WORD

Warning

GHS SYMBOLS

GHS07 Exclamation mark

GHS08 Health hazard

GHS LABELING/HAZARD STATEMENTS

H315 Causes skin irritation

H319 Causes serious eye irritation

H361 Suspected of damaging fertility or the unborn child.

H412 Harmful to aquatic life with long lasting effects

GHS LABELING/PRECAUTIONARY STATEMENTS

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #: 3033-23-6

FEMA #: 3236 COE #: 2269

MF: C10H180 EC NO: 221-217-9

Minimum Purity: 99.0% (sum of isomers)

Additives: synthetic alpha tocopherol @ 0.10%

SYNONYM(S)

2H-Pyran, tetrahydro-4-methyl-2-(2-methyl-1-propenyl)-, (2S-cis)-

(\* Alt. CAS #) CAS: 16409-43-1; Rose Oxide

FEMA CAS: 16409-43-1

## SECTION 4. FIRST-AID MEASURES

INHALATION EXPOSURE: Remove to fresh air. Give oxygen and call a physician.

EYE CONTACT: Flush with water for 15 min. Seek medical help if necessary. SKIN CONTACT: Wash area well with water. Seek medical help if necessary. INGESTION: Administer water and call a physician or poison control center immediately. Do not induce vomiting.

## SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

CO2, FOAM, DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES

Use standard fire fighting procedures.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED Standard absorbents can be used.

WASTE DISPOSAL METHOD: Incineration or sanitary landfill in accordance with local, state, and federal regulations.

## SECTION 7. HANDLING AND STORAGE

### HANDLING

Observe all warnings and precautions listed for the product. Use in accordance with good manufacturing and industrial hygiene practices. Use product in a properly ventilated work

area. Do not eat, drink or smoke while handling product. STORAGE

Store tightly sealed under inert gas in a cool, well-ventilated area. FIRE PROTECTION  $% \left( 1\right) =\left( 1\right) +\left( 1$ 

Keep away from heat, sparks, and open flame.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Local exhaust preferred. General ventilation required. RESPIRATORY: Usually not required. Avoid inhaling concentrated vapors.

SKIN: Avoid skin contact. Use chemical resistant gloves.

EYES: Splash-proof safety glasses or goggles.

OTHER PROTECTIVE EQUIPMENT: Safety shower, eye wash

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: colorless liquid

ODOR DESCRIPTION: clean floral, green rosy, geranium

BOILING POINT: 194.97 C (EPI 4.0)

VAPOR PRESSURE: 0.456 mmHg (20C, EPI 4.0)

VAPOR DENSITY (Air = 1): > 1

SPECIFIC GRAVITY @ 25C (water = 1): 0.8650:0.8730

SOLUBILITY IN WATER: Insoluble in water; soluble in alcohol.

FLASH POINT (CC): 150 F 66 C

LOGP : 3.580

## SECTION 10. STABILITY AND REACTIVITY

## INCOMPATIBILITIES

CONDITIONS TO AVOID: Presents no special reactivity hazard.

MATERIALS TO AVOID: Strong oxidizing agents

HAZARDOUS COMBUSTION PRODUCTS

CO, CO2, water

## SECTION 11. TOXICOLOGICAL INFORMATION

## ACUTE EFFECTS

Most likely route of entry is through the skin.

Full strength may be irritating to skin and eyes.

## IRRITATION DATA

2% in petrolatum produced no irritation or sensitization in humans.

Eye Rabbit: irritant effects and eye effects at 1.25%.

Skin Human: no irritant effects at 2%.

Skin Human: no irritant effects at 3%.

Skin Rabbit: Test mat'l shows a skin irritation potential. The average score (24-72 hours) for irritation was calcualted to be 3.1 for erythema and 1.0 for edema.

## TOXICITY DATA

Ames assay: S. typhimurium strains TA1535, TA1537, TA1538, TA98, TA100 and

TA102 w/ & w/o S9 activation. Direct plate method, solvent DMSO. Result:

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test mat'l is not mutagenic.
    Ames assay: S. typhimurium strains TA1535, TA1537, TA1538, TA98, TA100
   TA102 w/ & w/o S9 activation. Preincubation method, solvent DMSO. Result:
    test mat'l is not mutagenic.
    LD50 Dermal (rabbit) > 5 g/kg.
   LD50 Oral (rat) 4.3 g/kg.
  THRESHOLD LIMIT VALUE (TLV): Not established
  OSHA PERMISSABLE EXPOSURE LIMIT (PEL): Not established
 LISTED AS CARCINOGEN BY NTP, IARC, OR OSHA?: NO
SECTION 12. ECOLOGICAL INFORMATION
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#### GENERAL

Prevent contamination of soil, ground- and surface water.

#### ECOTOXIC EFFECTS

Acute Toxicity LC50 (Zebrafish) the LC50 at 24, 48, 72 and 96 hours was 77.6 mg/l with confidence interval of 56.6 - 106.5 mg/l. The NOEC after 96

hours was 12.5 mg/l.

Biodegradation test (OECD 302C): 30 mg/l inherently biodegradable. biodegradation started on day 7 and exceeded 70% on day 11. 95%

biodegradation after 31 days; 92% after 28 days.

EC50 Daphnia magna: 33.2 mg/l at 48 hours. 103 mg/l at 24 hours. 48 hours ECO: 22 mg/l. 24 hour ECO: 50 mg/l.

## SECTION 13. DISPOSAL CONSIDERATION

WASTE DISPOSAL METHOD: Incineration or sanitary landfill in accordance with local, state, and federal regulations.

## SECTION 14. TRANSPORT INFORMATION

Class Pack Group Sub. Risk UN No.

Road(U.S.-DOT): not regulated. Air (IATA): not regulated. Sea (IMDG): not regulated.

## SECTION 15. REGULATORY INFORMATION

REVIEWS, STANDARDS, AND REGULATIONS This chemical is listed on the following inventories: TSCA AICS CHINA DSL EINECS(221-217-9) ENCS PICCS LISTED AS CARCINOGEN BY NTP, IARC, OR OSHA?: NO

## SECTION 16. OTHER INFORMATION

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