

**MATERIAL SAFETY DATA SHEET**  
**(R)-(+)-1,2-EPOXYOCTANE 95 %**

**Section 1 - Chemical Product and Company Identification**

**MSDS Name:** (R)-(+)-1,2-EPOXYOCTANE 95%

**Catalog Numbers:** 69.32

**Synonyms:** (R)-(+)-2-Hexyloxirane

**Company Identification:** Tau-Chem, Ltd.  
Nobelova 34, P.O. Box 29  
836 05 Bratislava, Slovak Republic  
Phone: +421 2 4445 2252 Fax: +421 2 4445 7645

Relevant identified uses of substance or mixture and uses advised against  
Identified uses Laboratory chemicals, Manufacture of substances

**POISON CENTER:** National Toxicological Information Centre  
Limbová 5, 833 05 Bratislava, Slovakia

**Emergency Numbers:** Phone: +421 2 54 774 166 Fax: +421 2 54 774 605

**Section 2 - Hazards Identification**

**Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Flammable liquids (Category 3)  
Skin irritation (Category 2)  
Eye irritation (Category 2)  
Specific target organ toxicity – single exposure (Category 3)

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Flammable. Irritant to eyes, respiratory system and skin. Moisture sensitive.

**Labeling according to Regulation (EC) No 1272/2008 [CLP]**

**Label elements**



Signal word	Warning
Hazard statement(s)	
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P261	Avoid breathing dust/ fume/gas/mist/vapor/spray.
P280	Wear protective gloves/eye protection/face protection.

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

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

P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P501 Dispose of contents/container in accordance with local/regional/national/international regulation (to be specified).

Hazard symbol(s)

**According to European Directive 67/548/EEC as amended**



Hazard symbol(s)

F Flammable.  
Xi Irritant.

R-phrase(s)

R10 Flammable.  
R36/37/38 Irritation to eyes, respiratory system and skin.

S-phrase(s)

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

**Other hazards**

None.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
77495-66-0	(R)-(+)-1,2-EPOXYOCTANE	95	--
<b>Classification</b>	Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3 H226; H315; H319; H335 XI, R10; R36/37/38		

For the full text of the H-Statements mentioned in this Section, see Section 16.

### Section 4 - First Aid Measures

**General advice:** Consult a physician.

**If inhaled:** If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## Section 5 - Fire Fighting Measures

<b>Suitable extinguishing media:</b>	For small (incipient) fires, use media such as “alcohol” foam, dry chemical or carbon dioxide. For large fires apply water from as far as possible. Use very large quantities /flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
<b>Special protective equipment for fire-fighters:</b>	Wear self contained apparatus breathing apparatus for fire fighting if necessary.
<b>Further information:</b>	Use water spray to cool unopened containers.

## Section 6 - Accidental Release Measures

<b>Personal precautions:</b>	Use personal protective equipment. Avoid breathing of vapours or mist. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
<b>Environmental precautions:</b>	Do not let product enter drains.
<b>Methods and materials for containment and cleaning up:</b>	Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust), using the appropriate protective equipment. Place into a suitable clean, dry, closed container for disposal. Ensure adequate ventilation.

## Section 7 - Handling and Storage

<b>Precautions for safe handling:</b>	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Keep away from sources of ignition – No smoking. Take measures to prevent the build of electrostatic charge.
<b>Conditions for safe storage:</b>	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in a cool place. Recommended storage temperature. 2-8 °C. Store under inert gas. Moisture sensitive.

## Section 8 - Exposure Controls, Personal Protection

<b>Personal protective equipment:</b>	
<b>Respiratory protection:</b>	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
<b>Hand protection</b>	The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.
<b>Eye protection:</b>	Safety glasses with side-shields conforming to EN 166. Use equipment for eye

protection tested and approved under appropriate government standards as NIOSH (US) or EN 166 (EU)

**Skin and body protection:** Impervious body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Section 9 - Physical and Chemical Properties

### Appearance

Form: Liquid  
Colour: Colourless  
Smell: Not available

### Safety data:

pH: Not available  
Melting point: Not available  
Boiling Point: 60 - 62 °C at 20 hPa  
Flash Point: 37 °C – closed cup  
Ignition temperature: Not available  
Explosion Limits: Lower: Not available  
Explosion Limits: Upper: Not available  
Solubility in water: Slightly soluble  
Density: 0.839 g/cm<sup>3</sup>  
Refractive Index: 1.478 – 1.480  
Molecular Formula: C<sub>8</sub>H<sub>16</sub>O  
Molecular Weight: 128.22 g/mol

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under recommended storage conditions.  
**Conditions to avoid:** Heat, flames and sparks.  
**Materials to avoid:** Strong oxidizing agents, strong acids, strong bases.  
**Hazardous Decomposition Products:** Hazardous decomposition products under fire conditions.  
– Carbon oxides.

## Section 11 - Toxicological Information

**Acute toxicity:** No data available  
**Skin corrosion/irritation:** No data available  
**Serious eye damage/eye irritation:** No data available  
**Respiratory or skin sensitization:** No data available  
**Germ cell mutagenicity:** No data available

### Carcinogenicity:

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

<b>Reproductive toxicity:</b>	No data available
<b>Specific target organ toxicity – single exposure</b>	Inhalation – Irritant to mucous membranes and respiratory system.
<b>Specific target organ toxicity – repeated exposure</b>	No data available
<b>Aspiration hazard</b>	No data available
<b>Potential health effect:</b>	
<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	Causes eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**Additional Information**

RTECS: No data available

**Section 12 – Ecological Information**

<b>Toxicity:</b>	No data available
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>PBT and vPvB assessment</b>	No data available
<b>Other adverse effects</b>	No data available

**Section 13 - Disposal Considerations**

<b>Product</b>	Observe all federal, state and local environmental regulations.
<b>Contaminated packaging</b>	Dispose of as unused product.

**Section 14 - Transport Information**

	<b>IATA</b>	<b>IMDG</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	ETHERS, N.O.S.	ETHERS, N.O.S.	ETHERS, N.O.S.
<b>Hazard Class:</b>	3	3	3
<b>UN Number:</b>	3271	3271	3271
<b>Packing Group:</b>	III	III	III
		EMS-No: F-E, S-D	
		Marine pollutant: No	

## Section 15 - Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

## Section 16 - Other Information

Flam Liq.	Flammable liquid.
Eye Irrit.	Eye irritation.
Skin Irrit.	Skin irritation.
STOT SE	Specific target organ toxicity – single exposure.
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Xi	Irritant.
R10	Flammable.
R36/37/38	Irritation to eyes, respiratory system and skin.

**MSDS Creation Date:** 17/12/2010

**Revision #0:**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Disclaimer:

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.