

SAFETY DATA SHEET  
1,2,7,8-DIEPOXYOCTANE 97%

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

**1.1 Product identifiers**

Product name: 1,2,7,8-DIEPOXYOCTANE 97%  
CAS-No. 2426-07-5  
EINECS-No. 219-375-9  
Catalog Numbers: 1.1  
**Synonyms:** Octadiene diepoxide; 2,2'-(1,4-butanediyl)bisoxirane

**1.2 Relevant identified uses of substance or mixture and uses advised against**

Identified uses Laboratory chemicals, Manufacture of substances

**1.3 Details of the supplier of the safety data sheet**

Company: TAU-CHEM, Ltd.  
Nobelova 34, P.O. Box 29  
836 05 Bratislava, Slovak Republic  
Telephone +421 2 44 452 252  
Fax +421 2 44 457 645

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

**1.4 Emergency telephone:** +421 2 54 774 166

**Section 2 - Hazards Identification**

**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Dermal (Category 3)  
Acute toxicity, Oral (Category 4)  
Germ cell mutagenicity (Category 2)  
Carcinogenicity (Category 1B)

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

May cause cancer. Possible risk of irreversible effects. Harmful if swallowed. Toxic in contact with skin.

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

Pictogram



Signal word

Danger

Hazard statement(s)


H302	Harmful if swallowed.
H311	Toxic in contact with skin
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.

Precautionary statement(s)

P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing.
P308+P313	If exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

Hazard symbol(s)

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

Hazard symbol(s)	
T	Toxic.
R-phrases(s)	
R45	May cause cancer.
R22	Also harmful if swallowed.
R24	Also toxic in contact with skin.
R68	Possible risk of irreversible effect.
S-phrases(s)	
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
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.
<b>2.3 Other hazards</b>	None.

### Section 3 - Composition, Information on Ingredients

#### 3.1 Substances

CAS#	Chemical Name:	%	EINECS#
2426-07-5	1,2,7,8-DIEPOXYOCTANE	97	219-375-9

<b>Formula</b>	C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>
<b>Molecular weight</b>	142.20 g/mol

### Section 4 - First Aid Measures

#### 4.1 Description of first aid measures

<b>General advice:</b>	Consult a physician. Show this safety data sheet to the doctor in attendance.
<b>If inhaled:</b>	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.

#### **4.2 Most important symptoms and effects, both acute and delayed**

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

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

## **Section 5 - Firefighting Measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media:**

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 after containers with flooding quantities of water.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides.

### **5.3 Advice for firefighters**

Wear self-contained apparatus breathing apparatus for firefighting if necessary.

### **5.4 Further information**

Use water spray to cool unopened container.

## **Section 6 - Accidental Release Measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid breathing vapors, mist or gas. Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe area.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with absorbent material, and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

For disposal see section 13.

## **Section 7 - Handling and Storage**

### **7.1 Precautions for safe handling:**

Avoid exposure – obtain special instructions before use. Avoid inhalation or vapor or mist. Normal

measures for preventive fire protection.

### 7.2 Conditions for safe storage

Store in cool place. 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.

### 7.3 Specific end uses

No data available

## Section 8 - Exposure Controls, Personal Protection

### 8.1 Control parameters

#### Component with workplace control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### 8.2 Exposure controls

#### Appropriate engineering controls

General industrial hygiene practice

#### Personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate

##### Skin and protection

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. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

##### Respiratory protection

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).

## Section 9 - Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

- |                                 |                                    |
|---------------------------------|------------------------------------|
| a) Appearance                   | Form: liquid<br>Colour: colourless |
| b) Odour                        | No data available                  |
| c) Odour Threshold              | No data available                  |
| d) pH                           | No data available                  |
| e) Melting point/freezing point | No data available                  |
| f) Initial boiling point and    | 240 °C – lit.                      |

boiling point range:	
g) Flash Point:	98 °C closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	0.997 g/cm <sup>3</sup> at 25°C
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Autoignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosives properties	No data available
t) Oxidizing properties	No data available

## 9.2 Other safety information

No data available

## Section 10 - Stability and Reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

No data available

### 10.3 Possibility of hazardous reaction

No data available

### 10.4 Conditions to Avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents, acids, bases.

### 10.6 Hazardous Decomposition Products

Other decomposition products – no data available

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral – rat – 1.067 mg/kg

LD50 Dermal – rabbit – 319 mg/kg

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

In vitro tests showed mutagenic effects.

Genotoxicity in vitro – Hamster - Lungs  
Sister chromatid exchange  
Mutation in mammalian somatic cells.  
Ames test – S. typhimurium - positive  
Possible human carcinogen.

**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 – May cause respiratory irritation.
<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>	Harmful if swallowed.
<b>Skin</b>	Toxic if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation

**Signs and Symptoms of Exposure**

Skin contact may provoke the following symptoms: irritation, skin contact poisoning. Contact with eyes can cause: Eye irritation. Inhalation of vapours can cause: Local irritation.

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

**Additional Information**

RTECS: RG9450000

## Section 12 – Ecological Information

<b>12.1 Toxicity</b>	No data available
<b>12.2 Persistence and degradability</b>	No data available
<b>12.3 Bioaccumulative potential</b>	No data available
<b>12.4 Mobility in soil</b>	No data available
<b>12.5 PBT and vPvB assessment</b>	No data available
<b>12.6 Other adverse effects</b>	No data available

## Section 13 - Disposal Considerations

**13.1 Waste treatment methods**

**Product**

Material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

## Section 14 - Transport Information

### 14.1 UN number

ADR/RID: 2810

IMDG: 2810

IATA: 2810

### 14.2 UN proper shipping name

ADR/RID: TOXIC LIQUID, ORGANIC, N.O.S.

IMDG: TOXIC LIQUID, ORGANIC, N.O.S.

IATA: TOXIC LIQUID, ORGANIC, N.O.S.

### 14.3 Transport hazard class

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

### 14.5 Environmental hazards

ADR/RID: no

IMDG: Marine pollutant: no

IATA: no

EMS-No: F-A, S-A

### 14.6 Special precautions for user

No data available

## Section 15 - Regulatory Information

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

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

### 15.6 Chemical Safety Assessment

No data available

## Section 16 - Other Information

**SDS version:** 2

**Creation Date:** 16/02/2012

### Further information

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.