

**MATERIAL SAFETY DATA SHEET**  
**2,2-BIS(3,4-EPOXYCYCLOHEXYL)PROPANE 96%**

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

**MSDS Name:** 2,2-BIS(3,4-EPOXYCYCLOHEXYL)PROPANE 96%  
**Catalog Numbers:** 1.22  
**Synonyms:** 3,3'-(1-methylethylidene)bis-7-oxabicyclo[4.1.0]heptane  
 (mixture of isomers)

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

**Company Identification:** Tau-Chem, Ltd.  
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 Phone: +421 2 44 452 252 Fax: +421 244 457 645

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

**Emergency Numbers Slovakia:** Phone: +42 2 54 774 166 Fax: +42 2 54 774 605

**Section 2 - Hazards Identification**

**Classification of the substance or mixture**

According to Regulation (EC) No 1272/2008  
 Skin irritation, (Category 2)  
 Eye irritation, (Category 2)  
 Specific target organ toxicity – single exposure (Category 3)

According to European Directive 67/548/EEC as amended.  
 Irritating to eyes, respiratory system and skin.

**Label elements**

Pictogram



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

Avoid breathing dust/foam/mist/spray.

P280

Wear protective gloves/protective clothing.

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.
Hazard symbol(s)	
Xi	Irritant.
R-phrase(s)	
R36/37/38	Irritating 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	Wear suitable protective clothing.
<b>Other hazards</b>	None.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
14513-43-0	2,2-BIS(3,4-EPOXYCYCLOHEXYL)PROPANE (Mixture of isomers)	96	Not listed

**Classification** Skin Irrit. 2; Eye Irrit. 2; STOTSE 3;  
H315, H319, H335  
Xi, R36/37/38

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

### Section 4 - 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.
<b>In case of skin contact:</b>	Wash off with soap and plenty of water. Consult a physician.
<b>In case eye contact:</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>If swallowed:</b>	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.

### Section 6 - Accidental Release Measures

<b>Personal</b>	Use personal protective equipment. Avoid breathing vapours, mist or gas.
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<b>precautions:</b>	Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
<b>Environmental precautions:</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
<b>Methods and materials for containment and cleaning up</b>	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

## Section 7 - Handling and Storage

<b>Precautions for safe handling:</b>	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Normal measures to prevent the build up 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 cool place. Moisture sensitive.

## Section 8 - Exposure Controls, Personal Protection

### Personal protective equipment:

<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>	Face shield and safety glasses.
<b>Skin and body protection:</b>	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
<b>Hygiene measures:</b>	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:	Viscous liquid
Colour:	Slightly yellow

### Safety data:

<b>pH</b>	Not available
<b>Melting point:</b>	Not available
<b>Boiling Point:</b>	145 °C / 1 mm Hg
<b>Flash Point:</b>	Not available
<b>Ignition temperature:</b>	Not available
<b>Explosion Limits: Lower:</b>	Not available
<b>Explosion Limits: Upper:</b>	Not available

<b>Solubility in water:</b>	Insoluble
<b>Specific Gravity/Density:</b>	1.008 g/cm <sup>3</sup>
<b>Refractive Index:</b>	1.4430 – 1.4450
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>24</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	236.35 g/mol

### Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Stabile under recommended storage conditions.
<b>Conditions to Avoid:</b>	Incompatible materials, ignition sources, exposure to moist air or water.
<b>Materials to avoid:</b>	Strong oxidizing agents, strong acids.
<b>Hazardous Decomposition Products</b>	Hazardous decomposition products under fire conditions. – Carbon oxides.

### Section 11 - Toxicological Information

<b>Acute toxicity</b>	No data available
<b>Skin corrosion/irritation</b>	No data available
<b>Serious eye damage/eye irritation</b>	No data available
<b>Respiratory or skin sensitization</b>	No data available
<b>Germ cell mutagenicity</b>	No data available

#### **Carcinogenicity:**

IARC: No component of this product present 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. Causes 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 serious eye irritation

#### **Signs and Symptoms of Exposure**

Material is irritating to mucous membranes and upper respiratory tract. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

#### **Additional Information**

RTECS: Not 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>	This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
<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>	Not dangerous goods	Not dangerous goods	Not dangerous goods
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

## Section 15 - Regulatory Information

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

## Section 16 - Other Information

### Text of H-code(s) and R-phrase(s) mentioned in Section 3

Eye Irrit.	Eye irritation.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H355	May cause respiratory irritation.
Skin Irrit.	Skin irritation.
STOT SE	Specific target organ toxicity – single exposure.
Xi	Irritant.
R36/37/38	Irritating to eyes, respiratory system and skin.

**MSDS Creation Date:** 21/9/2007

**Revision #1:** 22/07/2011

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.