

MATERIAL SAFETY DATA SHEET
2-ETHYL-1,6-DIOXASPIRO[4.4]-NONANE 95%

Section 1 - Chemical Product and Company Identification

MSDS Name:	2-ETHYL-1,6-DIOXASPIRO[4.4]-NONANE 95%
Catalog Numbers:	4.93
Synonyms:	Chalcogran
Relevant identified uses of substance or mixture and uses advised against	
Identified uses	Laboratory chemicals, Manufacture of substances
Company Identification:	Tau-Chem, Ltd. Nobelova 34, P.O. Box 29 836 05 Bratislava, Slovak Republic Phone: +421 2 44 452 252 Fax: +421 2 44 457 645
POISON CENTER:	National Toxicological Information Centre Limbová 5, 833 05 Bratislava,
Emergency Numbers Slovakia:	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

Acute toxicity (Category 4)
 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.
 Harmful if swallowed. Irritating to eyes, respiratory system and skin.

Label elements

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

Pictogram	
Signal word	Warning
Hazard statement(s)	
H302	Harmful if swallowed.
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation.
Precautionary statement(s)	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

According to European Directive 67/548/EEC as amended



Hazard symbol(s)	
Xn	Harmful.
R-phrases(s)	
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
S-phrases(s)	
S24/25	Avoid contact with skin and eyes.
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.
Caution	Substance is not tested completely.
Other hazards	None.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
38401-84-2	2-ETHYL-1,6-DIOXASPIRO[4.4]-NONANE	95	unlisted

Classification	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; Acute Tox. 4 H302;H315, H319, H335, Xn,R22 - R36/37/38
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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. Show this safety data sheet to the doctor in attendance.
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

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters:	Wear self contained apparatus breathing apparatus for fire fighting if necessary.

Section 6 - Accidental Release Measures

Personal precautions:	Use personal protective equipment. Avoid breathing of vapours or mist. Ensure adequate ventilation.
Environmental precautions:	Do not let product enter drains.
Methods and materials for containment and cleaning up:	Soak with suitable absorbing material and place into container. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling:	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.
Conditions for safe storage:	Store away from sunlight in well ventilated dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Personal protective equipment:	
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).
Hand 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.
Eye protection:	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:	Clear liquid
Colour:	Colourless
Safety data:	
pH	Not available
Melting point:	Not available
Boiling Point:	69°C/12 mm
Flash Point:	Not available
Ignition temperature:	Not available
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
Solubility in water:	Not available
Specific density:	0.980
Refractive Index:	1.4420-1.4460
Molecular Formula:	C ₉ H ₁₆ O ₂
Molecular Weight:	156.22 g/mol

Section 10 - Stability and Reactivity

Chemical Stability:	Stabile under recommended storage conditions.
Conditions to avoid:	Sunlight, heat.
Materials to avoid:	Strong oxidizing agents, strong alkalis.
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.

Reproductive toxicity:	No data available
Specific target organ toxicity – single exposure	Inhalation – May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	No data available
Aspiration hazard	No data available
Potential health effect:	
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes serious 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

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

Section 13 - Disposal Considerations

Product	Observe all federal, state and local environmental regulations. Dissolve or mix the material with a combustive solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging	Dispose of as unused product.

Section 14 - Transport Information

	IATA	IMDG	RID/ADR
Shipping Name:	Not dangerous goods	Not dangerous goods	Not dangerous goods
Hazard Class:			
UN Number:			
Packing Group:			
		Marine pollutant: No	

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.
Skin Irrit.	Skin Irritation.
Acute Tox.	Acute toxicity.
STOT SE	Specific target organ toxicity – single exposure
H302	Harmful if swallowed.
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation.
Xn	Harmful.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.

MSDS Creation Date: 11/03/2011

Revision #0: Original

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.