

MATERIAL SAFETY DATA SHEET
(3S,4S)-(+)-1-BENZYL-3,4-PYRROLIDINEDIOL 97%

Section 1 - Chemical Product and Company Identification

MSDS Name:	(3S,4S)-(+)-1-BENZYL-3,4-PYRROLIDINEDIOL 97%
Catalog Numbers:	69.53
Synonyms:	
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
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,
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

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

Irritating to eyes, respiratory system and skin.

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

Label elements

Pictogram



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319

Causes serious eyes irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

Avoid breathing dust/ fume/gas/mist/vapour/spray.

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 (to be specified).

Hazard symbol(s)

According to European Directive 67/548/EEC as amended



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 for medical advice.

S36/37/38 Wear suitable protective clothing, gloves and eye/face protection.

Other hazards None.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
90365-74-5	(3S,4S)-(+)-1-BENZYL-3,4-PYRROLIDINEDIOL	97	--

Classification Skin Irrit. 2; Eye Irrit. 2; STOT SE 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

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: Vacuum or sweep up material and place into a suitable disposal container. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapours or mist. Keep away from sources of ignition – No smoking.

Conditions for safe storage: Store in cool, dry place. Keep refrigerated. Keep container tightly closed in a dry and well-ventilated place.

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: Solid

Colour: Off-white

Safety data:

pH Not available

Melting Point: 95 - 101 °C – lit.

Boiling Point:	Not available
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:	Not available
Refractive Index:	Not available
Optical Rotation:	+ 33 (+/-) 3 (c=1.0 MeOH)
Molecular Formula:	C ₁₁ H ₁₅ NO ₂
Molecular Weight:	193.24 g/mol

Section 10 - Stability and Reactivity

Chemical Stability:	Stabile under recommended storage conditions.
Conditions to Avoid:	Incompatible materials.
Materials to avoid:	Strong oxidizing agents, strong acids.
Hazardous Decomposition Products	Hazardous decomposition products under fire conditions – Carbon oxides, nitrogen 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. 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:			

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-phrases(s) mentioned in Section 3

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

MSDS Creation Date: 29/01/2008

Revision #1:20/10/2010

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.