

SAFETY DATA SHEET  
TETRAHYDRO-3-FUROIC ACID 99%

## Section 1 - Chemical Product and Company Identification

## 1.1 Product identifiers

Product name: TETRAHYDRO-3-FUROIC ACID 99 %  
CAS-No. 89364-31-8  
EINECS-No. Not listed  
Catalog Numbers: 4.98  
**Synonyms:** Tetrahydrofuran-3-carboxylic acid

## 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**


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]**

## 2.2 Label elements

Pictogram   
Signal word Warning  
Hazard statement(s)  
H319 Causes serious eye irritation.  
H315 Causes skin irritation.

H335	May cause respiratory irritation.
Precautionary statement(s)	
P261	Avoid breathing dust.
P280	Wear protective gloves/protective clothing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye <b>irritation</b> persists: Get medical advice/attention.
P302+P352	IF ON <b>SKIN</b> : Wash with plenty of soap and water.
P332+P313	If <b>skin irritation</b> occurs: Get medical advice/ attention.
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-phrases(s)

R36/37/38

Irritating to eyes, respiratory system and skin.

S-phrases(s)

S26

In case of contact with eyes rinse immediately with plenty of water and seek for medical advice.

S37/39

Wear suitable gloves and eye/face protection.

**2.3 Other hazards**

None.

### Section 3 - Composition, Information on Ingredients

#### 3.1 Substances

CAS#	Chemical Name:	%	EINECS#
89364-31-8	TETRAHYDRO-3-FUROIC ACID	99	Not listed
<b>Synonyms</b>	Tetrahydrofuran-3-carboxylic acid		
<b>Formula</b>	C <sub>5</sub> H <sub>8</sub> O <sub>3</sub>		
<b>Molecular weight</b>	116.12 g/mol		

### Section 4 - First Aid Measures

#### 4.1 Description of 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.

#### **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:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **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**

No data available

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

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

Avoid dust formation. Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe area.

### **6.2 Environmental precautions**

Do not let product enter drains

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

Pick up and arrange disposal without creating dust. 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.

### **7.3 Specific end uses**

No data available

## Section 8 - Exposure Controls, Personal Protection

### 8.1 Control parameters

#### Component with workplace control parameters

### 8.2 Exposure controls

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

#### Appropriate engineering controls

General industrial hygiene practice

#### Personal protective equipment

##### Eyeface 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 protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. 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 Colour: colourless to pale yellow
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 boiling point range:	140°C at 20hPa – lit.
g) Flash Point:	113 °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	1.214 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

No data available

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous Decomposition Products

Other decomposition products – no data available

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

**Acute toxicity** No data available

**Skin corrosion/irritation** No data available

**Serious eye damage/eye irritation** Irritant effect.

**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



## 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:** 1

**Revision date:** 22/02/2012

### 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.