

MATERIAL SAFETY DATA SHEET  
2,3-DIMETHYLFURAN 99%

## Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	2,3-DIMETHYLFURAN 99%
<b>Catalog Numbers:</b>	4.12
<b>Synonyms:</b>	
Relevant identified uses of substance or mixture and uses advised against	
Identified uses	Laboratory chemicals, Manufacture of substances
<b>Company Identification:</b>	Tau-Chem, Ltd. Nobelova 34, P.O. Box 29 836 05 Bratislava, Slovak Republic Phone: +421 2 44 452 252 Fax: +421 244 457 645
<b>POISON CENTER:</b>	National Toxicological Information Centre Limbová 5, 833 05 Bratislava,
<b>Emergency Numbers Slovakia:</b>	Phone: +42 2 54 774 166 Fax: +42 2 54 774 605

## Section 2 - Hazards Identification

**Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

Flammable liquid (Category 2)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Acute toxicity, Oral (Category 4)

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

Highly flammable. Harmful by inhalation, in contact with skin and if swallowed.

**Label elements****Labelling according Regulation (EC) No 1272/2008 [CLP]**

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly Flammable liquid and vapor.

H302

Harmful if swallowed.

H312

Harmful in contact with skin.

H332

Harmful if inhaled.

Precautionary statement(s)

P210

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P280

Wear protective gloves/ protective clothing.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 F IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
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).

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

Hazard symbol(s)

F



Xn

Harmful.

R-phrases(s)

R11

Highly flammable.

R20/21/22

Harmful by inhalation, in contact with skin and if swallowed.

S-phrases(s)

S16

Keep away from sources of ignition - No smoking.

S36

Wear suitable protective clothing.

**Other hazards**

None

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
14920-89-9	2,3-DIMETHYLFURAN	99	Unlisted
<b>Classification</b>	Flam. Liq. 2; Acute Tox. 4 H225,H302, H312,H332 F; Xn; R11 – R20/21/22		

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>Further information</b>	Use water spray to cool unopened containers.
<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 precautions:</b>	Use personal protective equipment. Avoid breathing vapours, mist or gas. 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).

## 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. Take 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.

## Section 8 - Exposure Controls, Personal Protection

<b>Personal protective equipment:</b>	
<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>	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)
<b>Skin and body protection:</b>	Impervious 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

<b>Physical State:</b>	Clear liquid
<b>Colour:</b>	Colourless to slight yellow
<b>Odor:</b>	Not available
<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Viscosity:</b>	Not available
<b>Boiling Point:</b>	42 °C / 115 mm Hg
<b>Freezing/Melting Point:</b>	Not available
<b>Autoignition Temperature:</b>	Not available
<b>Flash Point:</b>	- 1 °C
<b>Explosion Limits: Lower:</b>	Not available
<b>Explosion Limits: Upper:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	Insoluble
<b>Specific Gravity/Density:</b>	0,91 g/cm <sup>3</sup> at 25 °C
<b>Refractive Index:</b>	1.4425 – 1.4440
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>8</sub> O
<b>Molecular Weight:</b>	96.13 g/mol

## Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to Avoid:</b>	Heat, flames and sparks. Extremes of temperature and direct sunlight.
<b>Incompatibilities with Other Materials</b>	Strong oxidizing agents, reducing agents, strong acids, strong bases.
<b>Hazardous Decomposition Products</b>	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
<b>Carcinogenicity:</b>	
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>RTECS#:</b>	No data available.
<b>Reproductive toxicity:</b>	No data available
<b>Specific target organ toxicity – single exposure</b>	No data available

<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>	Harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	Harmful if swallowed.
<b>Skin</b>	Harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Signs and Symptoms of Exposure</b>	
	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
<b>Additional Information</b>	
	No data 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>	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. 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>	FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.
<b>Hazard Class:</b>	3	3	3
<b>UN Number:</b>	1993	1993	1993
<b>Packing Group:</b>	II	II	II
		EMS No: F-E; S-E	
		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

Acute Tox.	Acute Toxicity.
Flam. Liq.	Flammable liquid.
H225	Highly <u>Flammable</u> liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
F	Highly flammable.
Xn	Harmful.
R11	Highly flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.

**MSDS Creation Date:** 05/03/2007

**Revision #1:**26/07/2011

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.