

MATERIAL SAFETY DATA SHEET
2,3-BENZOFURAN 99%

Section 1 - Chemical Product and Company Identification

MSDS Name:	2,3-BENZOFURAN 99%
Catalog Numbers:	4.92
Synonyms:	Coumarone
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: +421 244 457 645
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

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 3)

Carcinogenicity (Category 2)

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

Limited evidence of carcinogenic effect. Harmful for aquatic organisms.

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

Label elements

Pictogram



Signal word

Warning

Hazard statement(s)

H226

Flammable liquid and vapor.

H351

Suspected of causing cancer.

Precautionary statement(s)

P281

Use personal protective equipment as required.

Hazard symbol(s)

Xn

Harmful.

R-phrases(s)

R40

Limited evidence of carcinogenic effect.

R52

Harmful to aquatic organisms.

S-phrases(s)

S36/37

Wear suitable protective clothing and gloves.

Other hazards

None.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
271-89-6	2,3-Benzofuran	99	205-982-6

Classification Flam Liq. 3; Carc.2
H226, H351,
Xn, R40-R52

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: Avoid breathing vapors, mist or gas. Use personal protective equipment. Ensure adequate ventilation.

Environmental precautions: Do not let product enter drains. Discharge into environment must be avoided.

Methods and materials for containment and cleaning up Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling: Avoid inhalation or vapour or mist. Keep away from sources of ignition. – No smoking. Take measures to prevent build up of electrostatic charge.

Conditions for safe storage: Store in cool place. 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. Recommended storage temperature: 2-8°C

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:	Face shield and safety glasses.
Skin and body protection:	Choose 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
Color:	Yellow

Safety data:

pH	Not available
Melting Point:	Not available
Boiling Point:	113-175 °C – lit.
Flash Point:	56 °C closed cup
Ignition temperature:	Not available
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
Solubility in water:	Not available
Density:	1.072 g/cm ³ at 25°C
Refractive Index:	Not available
Molecular Formula:	C ₈ H ₆ O
Molecular Weight:	118.13 g/mol

Section 10 – Stability and Reactivity

Chemical Stability:	Stabile under recommended storage conditions.
Conditions to Avoid:	No data available.
Materials to avoid:	Strong oxidizing agents.
Hazardous Decomposition Products	Hazardous decomposition products under fire conditions. – Carbon oxides.

Section 11 – Toxicological Information

Acute toxicity	LD50-Intraperitoneal – mouse 500 mg/kg
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	Genotoxicity in vitro – mouse- lymphocyte Mutation in mammalian somatic cells. Genotoxicity in vitro – Hamster – ovary Sister chromatid exchange. Genotoxicity in vivo – mouse Oral Other mutation test system.
Carcinogenicity:	Rat – Oral Tumorigenic: Carcinogenic by RTECS criteria Gastrointestinal: Tumors. Liver: Tumors

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP or EPA classification.

Limited evidence of carcinogenicity in animal studies.

IARC: 2B – Group 2B: Possibly carcinogenic for humans (Benzofuran).

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. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause 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: DF6423800

Section 12 – Ecological Information

Toxicity:	Toxicity to fish: LC50 – Pimephales promelas (fathead minnow) – 14 ml/l – 96 h
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

Harmful to aquatic organisms.

Section 13 - Disposal Considerations

Product This combustive material may be burned in a chemical incinerator equipped with an afterburner and scrubber. 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:	FLAMMABLE LIQUIDS, N.O.S.	FLAMMABLE LIQUIDS, N.O.S.	FLAMMABLE LIQUIDS, N.O.S.
Hazard Class:	3	3	3
UN Number:	1993	1993	1993
Packing Group:	III	III	III

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-phrases mentioned in Section 3

Carc.	Carcinogenicity.
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapor.
H351	Suspected of causing cancer.
Xn	Harmful.
R40	Limited evidence of carcinogenic effect.
R52	Harmful to aquatic organisms.

MSDS Creation Date: 11/06/2010

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.