

MATERIAL SAFETY DATA SHEET  
3,5-DIBROMO-4-HYDROXYBENZONITRILE 98%

**Section 1 - Chemical Product and Company Identification**

**MSDS Name:** 3,5-DIBROMO-4-HYDROXYBENZONITRILE 98%  
**Catalog Numbers:** 11.68  
**Synonyms:** Bromoxynil phenol  
**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**

Reproductive toxicity (Category 2)  
Acute toxicity, Inhalation (Category 2)  
Acute toxicity, Oral (Category 3)  
Skin sensitization (Category 1)  
Acute aquatic toxicity (Category 1)  
Chronic aquatic toxicity (Category 1)  
Toxic to Reproduction (Category 3)

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

Possible risk of harm to the unborn child. Very toxic by inhalation. Toxic if swallowed.

May cause sensitization by skin contact.

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

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

**Label elements**



Pictogram

Signal word

Danger

Hazard statement(s)

H330

Fatal if inhaled.

H301

Toxic if swallowed.

H317

May cause an allergic skin reaction.

H332

Very toxic to aquatic life with long lasting effects.

H410	Harmful in contact with skin.
H361d	Suspected of damaging the unborn child.
Precautionary statement(s)	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P284	Wear respiratory protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.
Hazard symbol(s)	
T+	Very toxic
N	Dangerous for the environment
R-phrases(s)	
R25	Toxic if swallowed.
R26	Very toxic by inhalation.
R43	May cause sensitization by skin contact.
R63	Possible risk of harm to the unborn child.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	
S27	Take off immediately all contaminated clothing.
S28	After contact with skin, wash immediately with plenty of soap and water.
S37/37	Wear suitable protective clothing and gloves.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S63	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/ Safety data sheets.
<b>Other hazards</b>	None.

### Section 3 - Composition, Information on Ingredients

<b>CAS#</b>	<b>Chemical Name:</b>	<b>%</b>	<b>EINECS#</b>
1689-84-5	3,5-DIBROMO-4-HYDROXYBENZONITRILE	98	216-882-7
<b>Index No</b>	<b>608-006-00-0</b>		
<b>Classification</b>	Repr. 2; Acute Tox. 2; Acute Tox. 3; Skin Sens. 1; Aquatic; Acute 1; Aquatic Chronic 1; H330, H301, H317, H410, H361d T+, N, Repr.Cat.3, R25 - R26- R43 - R63 - R50/53		

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>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Special protective equipment for fire-fighters:</b>	Wear self contained apparatus breathing apparatus for fire fighting if necessary.
<b>Further information:</b>	None.

#### Section 6 – Accidental Release Measures

<b>Personal precautions:</b>	Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.
<b>Environmental precautions:</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
<b>Methods and materials for containment and cleaning up</b>	Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

#### Section 7 – Handling and Storage

<b>Precautions for safe handling:</b>	Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
<b>Conditions for safe storage:</b>	Keep container tightly closed in a dry and well-ventilated place. Store in a cool, dry 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>	Face shield and safety glasses.
<b>Skin and body protection:</b>	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<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>Appearance</b>	
Form:	Solid
Colour:	white
<b>Safety data:</b>	
pH	Not available
Melting Point:	189-191°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:	Slightly soluble
Density:	Not available
Molecular Formula:	C <sub>7</sub> H <sub>3</sub> Br <sub>2</sub> NO
Molecular Weight:	276.9 g/mol

## Section 10 – Stability and Reactivity

<b>Chemical Stability:</b>	Stabile under recommended storage conditions.
<b>Materials to avoid:</b>	Strong oxidizing agents, strong bases.
<b>Hazardous Decomposition Products</b>	Carbon oxides, nitrogen oxides (NO <sub>x</sub> ), Hydrogen bromide gas

## Section 11 – Toxicological Information

<b>Acute toxicity</b>	LD50 Oral - rat - 190 mg/kg LC50 Inhalation - rat - female - 150 mg/m <sup>3</sup> LD50 Dermal - rabbit - 3.660 mg/kg
<b>Skin corrosion/irritation</b>	No data available
<b>Serious eye damage/eye irritation</b>	No data available
<b>Respiratory or skin sensitization</b>	May cause allergic skin reaction.
<b>Germ cell mutagenicity</b>	No data available
<b>Carcinogenicity:</b>	No data available

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>Reproductive toxicity:</b>	May cause congenital malformation in the fetus. Suspected human reproductive toxicant
<b>Specific target organ toxicity – single exposure</b>	Inhalation – May cause respiratory irritation.
<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>	May be fatal if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	Toxic if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	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: DI3150000

### **Section 12 – Ecological Information**

<b>Toxicity to fish:</b>	LC50 - <i>Lepomis macrochirus</i> - 1,67 mg/l - 96,0 h
<b>Toxicity to daphnia and other aquatic invertebrates.</b>	EC50 - <i>Daphnia magna</i> (Water flea) - 0,051 mg/l - 48 h
<b>Toxicity to algae</b>	Growth inhibition LOEC - <i>Pseudokirchneriella subcapitata</i> - 6,25 mg/l - 60 h
<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>	Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

### **Section 13 – Disposal Considerations**

<b>Product</b>	Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
<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>	TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.
<b>Hazard Class:</b>	6.1	6.1	6.1
<b>UN Number:</b>	2811	2811	2811
<b>Packing Group:</b>	III	III	III
		EMS No: F-A; S-A	
		Marine pollutant: YES	

### 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.
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Repr. Tox.	Toxic to Reproduction
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H317	May cause an allergic skin reaction.
H332	Very toxic to aquatic life with long lasting effects.
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**MSDS Creation Date:** 06/12/2011

**Revision #0 Date:** 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.