

**MATERIAL SAFETY DATA SHEET**  
**4,5-IMIDAZOLEDICARBOXYLIC ACID 99%**

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

<b>MSDS Name:</b>	4,5-IMIDAZOLEDICARBOXYLIC ACID 99%
<b>Catalog Numbers:</b>	5.23
<b>Synonyms:</b>	1H-IMIDAZOLE-4,5-DICARBOXYLIC ACID
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 2 44 457 645
<b>POISON CENTER:</b>	National Toxicological Information Centre Limbová 5, 833 05 Bratislava,
<b>Emergency Numbers Slovakia:</b>	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.

P332+P313	If skin irritation occurs: Get medical advice/ attention.
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)	
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.
S36	Wear suitable protective clothing.
S37/39	Wear suitable gloves and eye/face protection.
<b>Other hazards</b>	None.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
570-22-9	4,5-IMIDAZOLEDICARBOXYLIC ACID	99	209-327-5

**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

<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 sand, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use water extinguishers.
<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 of dust. Ensure adequate ventilation.
<b>Environmental precautions:</b>	Do not let product enter drains.
<b>Methods and materials for containment and cleaning up:</b>	Pick up without creating dust and dispose as hazardous waste. Keep in suitable, closed containers for disposal.

## Section 7 - Handling and Storage

<b>Precautions for safe handling:</b>	Avoid contact with skin and eyes. Avoid inhalation of vapours or mist or dust. Keep away from sources of ignition – No smoking. Normal measures for preventive fire protection.
<b>Conditions for safe storage:</b>	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:

<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

### Appearance

Form:	Solid
Colour:	Light yellow to light brown

### Safety data:

<b>pH</b>	Not available
<b>Freezing Point:</b>	Not available
<b>Melting Point:</b>	280-285 °C – lit.
<b>Flash Point:</b>	Not available
<b>Ignition temperature:</b>	Not available
<b>Explosion Limits: Lower:</b>	Not available
<b>Explosion Limits: Upper:</b>	Not available

<b>Solubility in water:</b>	Not available
<b>Specific density:</b>	Not available
<b>Refractive Index:</b>	Not available
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>4</sub> N <sub>2</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	156.10 g/mol

### Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Stabile under recommended storage conditions.
<b>Conditions to Avoid:</b>	Exposure of moist air or water.
<b>Materials to avoid:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Hazardous decomposition products under fire conditions. – Carbon oxides, Nitrogen oxides.

### Section 11 - Toxicological Information

<b>Acute toxicity</b>	No data available
	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

#### **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.

<b>Reproductive toxicity:</b>	No data available
<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 harmful if inhaled. Causes respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	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: NI4760000

## 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>	Observe all federal, state and local environmental regulations. 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>	Not dangerous goods	Not dangerous goods	Not dangerous goods
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

## 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

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:** 29/07/2010

**Revision #0:**

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.