

Tolyltriazole MSDS

Product Name and Identification

- **Product Name:** [Tolyltriazole](#)
- **Chemical Formula:** C₇H₇N₃
- **CAS Number:** 29385-43-1
- **Relevant Uses:** Corrosion inhibitor for metals, used in industrial water treatment, antifreeze formulations, and other industrial applications.
- **Manufacturer/Supplier:** [Insert Manufacturer Information]
- **Emergency Contact Number:** [Insert Emergency Contact Information]

Composition/Ingredients

- **Chemical Name:** Tolyltriazole
- **Concentration:** ≥ 98%
- **Synonyms:** 4-Methyl-1H-benzotriazole, Methylbenzotriazole
- **CAS Number:** 29385-43-1
- **EC Number:** 249-596-6

Hazards Identification

- **Classification:**
 - Acute toxicity (Category 4, oral)
 - Eye irritation (Category 2)
 - Specific target organ toxicity (Category 3, respiratory irritation)
- **Hazard Statements:**
 - H302: Harmful if swallowed.
 - H319: Causes serious eye irritation.
 - H335: May cause respiratory irritation.
- **Precautionary Statements:**
 - P261: Avoid breathing dust or fumes.
 - P280: Wear protective gloves, protective clothing, and eye protection.
 - P305 + P351 + P338: IF IN EYES, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First Aid Measures

- **General Advice:**
 - Seek immediate medical attention for severe exposure.
- **If Inhaled:**
 - Move person to fresh air and ensure they are breathing comfortably. If symptoms persist, seek medical advice.

- **If on Skin:**
 - Wash affected skin thoroughly with soap and water. Remove contaminated clothing. Seek medical help if irritation occurs.
- **If in Eyes:**
 - Rinse thoroughly with water for several minutes. Remove contact lenses if possible. If symptoms like irritation persist, consult a doctor.
- **If Swallowed:**
 - Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Call a doctor or poison control center immediately.

Handling and Storage

- **Handling:**
 - Use the product in a well-ventilated area. Avoid contact with skin, eyes, and clothing. Prevent the creation of dust.
 - Use appropriate protective equipment and avoid inhaling dust or fumes.
- **Storage:**
 - Store in a tightly sealed container in a dry, cool, and well-ventilated area. Protect from excessive heat, moisture, and incompatible materials such as strong oxidizing agents.

Exposure Controls/Personal Protection

- **Exposure Limits:**
 - No established exposure limits. Maintain appropriate controls to reduce airborne concentrations.
- **Personal Protective Equipment (PPE):**
 - **Respiratory Protection:**
 - Utilize an approved respirator if working in poorly ventilated areas or where dust is present.
 - **Eye Protection:**
 - Wear safety goggles or a face shield to prevent dust or fumes from contacting the eyes.
 - **Skin Protection:**
 - Use chemical-resistant gloves and protective clothing.
 - **General Hygiene:**
 - Wash hands thoroughly after handling. Avoid eating, drinking, or smoking while working with this product.

Physical and Chemical Properties

- **Appearance:** White to light yellow crystalline powder
- **Odor:** Characteristic mild odor
- **pH** (1% solution): ~6.0-7.0
- **Melting Point:** 80-86°C

- **Boiling Point:** ~300°C (decomposes)
- **Flash Point:** Not applicable
- **Solubility:**
 - Slightly soluble in water (~50 mg/L at 25°C).
 - Soluble in organic solvents such as ethanol, benzene, and acetone.
- **Density** (at 20°C): ~1.34 g/cm³

Stability and Reactivity

- **Stability:**
 - Stable under normal conditions of handling and storage.
- **Reactivity:**
 - Reacts with strong oxidizing agents and acids.
- **Conditions to Avoid:**
 - Heat, moisture, and direct sources of ignition.
- **Hazardous Decomposition Products:**
 - May release toxic fumes, including nitrogen oxides and carbon monoxide, during decomposition or combustion.

Toxicological Information

- **Acute Toxicity:**
 - Harmful if ingested.
 - Oral LD50 (rat): ~500-1000 mg/kg
- **Skin Irritation:**
 - May cause irritation or redness upon prolonged or repeated exposure.
- **Eye Damage:**
 - Causes irritation and may result in redness or tearing.
- **Chronic Effects:**
 - Prolonged inhalation or exposure to dust may cause respiratory tract irritation. No significant long-term health risks when used properly.

Disposal Considerations

- **Waste Treatment Methods:**
 - Dispose of product and contaminated materials as hazardous waste in accordance with local, regional, and national regulations.
 - Avoid release into drains, water supplies, or the environment.
- **Packaging:**
 - Empty containers should be decontaminated prior to disposal or recycling per applicable regulations.