



Health	1
Fire	1
Reactivity	0
Personal Protection	E

Material Safety Data Sheet

3-Amino-1,2,4-triazole MSDS

Section 1: Chemical Product and Company Identification

Product Name: 3-Amino-1,2,4-triazole

Catalog Codes: SLA3580

CAS#: 61-82-5

RTECS: XZ3850000

TSCA: TSCA 8(b) inventory: 3-Amino-1,2,4-triazole

CI#: Not available.

Synonym: Amitol, Amitrol, Amitrol 90, Amitrol-T, Amitrole, Amizol, Cytrol, Cytrole, Diurol, Elmasil, Emisol, Herbizole, Ramizol, Simazol, Triazolamine, Radoxone TL; 1H-1,2,4-Triazol-3-amine; 3-Amino-1H-1,2,4-triazole; 1,2,4-Triazol-3-amine

Chemical Name: 3-Amino-s-Triazole

Chemical Formula: C₂H₄N₄

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{3-}Amino-1,2,4-triazole	61-82-5	100

Toxicological Data on Ingredients: 3-Amino-1,2,4-triazole: ORAL (LD50): Acute: 1100 mg/kg [Rat]. 14700 mg/kg [Mouse]. DERMAL (LD50): Acute: >10000 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. **MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance may be toxic to kidneys, liver, thyroid. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...).

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards:

Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 0.2 (mg/m³) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystalline powder.)

Odor: Odorless.

Taste: Bitter.

Molecular Weight: 84.08 g/mole

Color: White to yellowish

pH (1% soln/water): 7 [Neutral.]

Boiling Point: Not available.

Melting Point: 153°C (307.4°F) - 159 deg. C

Critical Temperature: Not available.

Specific Gravity: 1.138 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: The product is more soluble in water; log(oil/water) = -0.6

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol.

Solubility:

Soluble in cold water, methanol. Insoluble in diethyl ether, acetone. Soluble in Chloroform. Insoluble in Diesel oil and other oils, Kerosene, Carbon Tetrachloride, hydrocarbons. Sparingly soluble in Ethyl Acetate. Slightly soluble in Methylene Chloride, Acetonitrile. Solubility in water: 28 g/100 g of water @ 25 deg. C. Solubility in ethanol: 26 g/100 g of ethanol @ 75 deg. C.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Not available.

Special Remarks on Reactivity:

Incompatible with acid chlorides, aluminum, copper, copper alloys, iron, acid anhydrides, iron salts, oxidizing agents

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 1100 mg/kg [Rat]. Acute dermal toxicity (LD50): >10000 mg/kg [Rat].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, liver, thyroid.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. May affect genetic material (mutagenic). May cause cancer based on animal test data

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: May cause slight skin irritation with skin rash. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea. May affect respiration and cause difficulty breathing and pulmonary edema. May affect behavior/central nervous system (CNS depression - ataxia, lassitude, weakness, coma). May affect thyroid and liver (thyroid and liver tumors, liver damage, enlarged thyroid due to lack of ability of thyroid to uptake iodine/thyroid suppression), kidneys, blood. Other symptoms may include muscle spasms, anorexia.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: 3-Amino-1,2,4-triazole
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: 3-Amino-1,2,4-triazole
Connecticut hazardous material survey.: 3-Amino-1,2,4-triazole
Illinois chemical safety act: 3-Amino-1,2,4-triazole
New York release reporting list: 3-Amino-1,2,4-triazole
Rhode Island RTK hazardous substances: 3-Amino-1,2,4-triazole
Pennsylvania RTK: 3-Amino-1,2,4-triazole
Minnesota: 3-Amino-1,2,4-triazole
Massachusetts RTK: 3-Amino-1,2,4-triazole
Massachusetts spill list: 3-Amino-1,2,4-triazole
New Jersey: 3-Amino-1,2,4-triazole
New Jersey spill list: 3-Amino-1,2,4-triazole
Louisiana RTK reporting list: 3-Amino-1,2,4-triazole
Louisiana spill reporting: 3-Amino-1,2,4-triazole
TSCA 8(b) inventory: 3-Amino-1,2,4-triazole
TSCA 8(a) PAIR: 3-Amino-1,2,4-triazole
TSCA 8(d) H and S data reporting: 3-Amino-1,2,4-triazole; Effective date: 3/11/94; Sunset data: 6/30/98
SARA 313 toxic chemical notification and release reporting: 3-Amino-1,2,4-triazole
CERCLA: Hazardous substances.: 3-Amino-1,2,4-triazole: 10 lbs. (4.536 kg)

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

R40- Limited evidence of carcinogenic effects. R48/22- Harmful: danger of serious damage to health by prolonged exposure if swallowed. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S36/37- Wear suitable protective clothing and gloves. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 03:42 PM

Last Updated: 11/01/2010 12:00 PM

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.