

SIGMA-ALDRICH

Material Safety Data Sheet

Version 3.0
Revision Date 07/13/2007
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : **3-Amino-1,2,4-triazole**
Product Number : A8056
Brand : Sigma
Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +1 800-325-5832
Fax : +1 800-325-5052
Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 1,2,4-Triazol-3-amine
3-AT
Amitrol
Formula : C2H4N4
Molecular Weight : 84.08 g/mol

CAS-No.	EC-No.	Index-No.	Concentration [%]
Amitrole			
61-82-5	200-521-5	613-011-00-6	-

3. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Delayed target organ effects
Highly toxic by inhalation
Carcinogen
Teratogen
Target Organs
Thyroid., Liver, Kidney
HMIS Classification
Health Hazard: 3
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0
NFPA Rating
Health Hazard: 0

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Fire : 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation : May be fatal if inhaled. May cause respiratory tract irritation.
Skin : May be harmful if absorbed through skin. May cause skin irritation.
Eyes : May cause eye irritation.
Ingestion : May be harmful if swallowed.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
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 of 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.

5. FIRE-FIGHTING MEASURES

Flammable properties
Flash point : no data available
Ignition temperature : no data available
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
Environmental precautions
Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Do not let product enter drains.
Methods for cleaning up
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling
Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Storage
Keep container tightly closed in a dry and well-ventilated place.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Amitrole	61-82-5	TWA	0.2 mg/m3	1996-05-18	US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004; Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)
Remarks	Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens. 1996 Adoption				
		TWA	0.2 mg/m3	1989-03-01	US. Department of Labor - Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1000 Z-1-A

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form solid
Colour no data available

Safety data

pH no data available
Melting point 150 - 153 °C (302 - 307 °F)
Boiling point no data available
Flash point no data available

Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Water solubility no data available

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents, Strong acids, Copper, Iron and iron salts.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.
Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 25,000 mg/kg
LC50 Inhalation - rat - 4 h - > 400 mg/m3
LD50 Dermal - rat - > 10,000 mg/kg

Irritation and corrosion

Skin - rabbit - Mild skin irritation
Eyes - rabbit - Mild eye irritation

Sensitisation

no data available

Chronic exposure

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

Laboratory experiments have shown mutagenic effects.

Possible risk of congenital malformation in the fetus.

Potential Health Effects

Inhalation May be fatal if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.
Target Organs Thyroid., Liver, Kidney,

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - > 100 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 30 mg/l - 48 h

EC50 - Daphnia magna (Water flea) - 21 h

Toxicity to algae EC50 - Scenedesmus subspicatus - 11,4 mg/l - 96 h

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

no data available

13. DISPOSAL CONSIDERATIONS

Product

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.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Amitrole)

IMDG

UN-Number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Amitrole)
Marine pollutant: No

IATA

UN-Number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, solid n.o.s. (Amitrole)

15. REGULATORY INFORMATION

OSHA Hazards

Delayed target organ effects, Highly toxic by inhalation, Carcinogen, Teratogen

TSCA Status

On TSCA Inventory

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

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Amitrole

61-82-5

1994-01-01

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Amitrole

CAS-No.
61-82-5

Revision Date
1994-01-01

Pennsylvania Right To Know Components

Amitrole

CAS-No.
61-82-5

Revision Date
1994-01-01

New Jersey Right To Know Components

Amitrole

CAS-No.
61-82-5

Revision Date
1994-01-01

California Prop. 65 Components

WARNING! This product contains a chemical known in the State of California to cause cancer.
Amitrole

CAS-No.
61-82-5

Revision Date
1992-11-09

16. OTHER INFORMATION

Further information

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