



Material Safety Data Sheet

12601 Twinbrook Parkway,
Rockville, MD 20852 USA

Phone Calls: 301-881-0666
8 a.m. to 5 p.m. EST Mon. - Fri.

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PYRAZINAMIDE

Catalog Number: 1585006

Revision Date:

February 24, 2005

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Common Name: Pyrazinamide

Manufacturer: U. S. Pharmacopeia

Responsible Party: Reference Standards Technical Services

Mailing Address: 12601 Twinbrook Parkway, Rockville, MD 20852 USA

Phone: 301-816-8129

Hours: 8 a.m. to 5 p.m. EST Mon. - Fri.

Product Use: USP Reference Standards and Authentic Substances are used for chemical tests and assays in analytical, clinical, pharmaceutical, and research laboratories.

SECTION 2 - HAZARD INFORMATION

Adverse Effects: Adverse effects may include joint or muscle pain, nausea, and vomiting. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

Overdose Effects: Large doses may cause liver toxicity (loss of appetite, unusual tiredness or weakness, yellow eyes or skin, and fever).

Acute: Possible eye, skin, gastrointestinal and/or respiratory tract irritation.

Chronic: Possible hypersensitization and liver damage.

Medical Conditions Aggravated by Exposure: Hypersensitivity to material, severely impaired liver function, and acute gout.

Cross Sensitivity: Persons sensitive to ethionamide, isoniazid, niacin (nicotinic acid), or other chemically-related medications may be sensitive to this material also.

Target Organs: Liver.

For additional information on toxicity, see Section 11.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: Pyrazinamide

Formula: C₅H₅N₃O

Synonym: Pyrazinoic acid amide; pyrazinamidum

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Chemical Name: Pyrazinecarboxamide

CAS: 98-96-4

RTECS Number: UQ2275000

Chemical Family: Pyrazine

Therapeutic Category: Antibacterial (tuberculostatic)

Composition: Pure Material

SECTION 4 - FIRST AID MEASURES

Inhalation: May cause irritation. Remove to fresh air.

Eye: May cause irritation. Flush with copious quantities of water.

Skin: May cause irritation. Flush with copious quantities of water.

Ingestion: May cause irritation. Flush out mouth with water. This material is rapidly and well absorbed from the gastrointestinal tract.

General First Aid Procedures: Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Obtain medical attention.

Note to Physicians

Overdose Treatment: For current information about the treatment of overdose, consult a certified Regional Poison Control Center by calling the number listed in your local telephone directory.

SECTION 5 - FIREFIGHTING MEASURES

Extinguisher Media: Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.

Fire and Explosion Hazards: This material is assumed to be combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.

Firefighting Procedures: As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Response: Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately-labelled container for disposal. Wash spill site.

SECTION 7 - HANDLING AND STORAGE

Handling: As a general rule, when handling USP Reference Standards avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

Storage: Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: Engineering controls such as exhaust ventilation are recommended.

Respiratory Protection: Use a NIOSH-approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring.

Gloves: Chemically compatible

Eye Protection: Safety glasses or goggles

Protective Clothing: Protect exposed skin.

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Exposure Limits: n/f

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Properties as indicated on the MSDS are general and not necessarily specific to the USP Reference Standard Lot provided.

Appearance and Odor: White or practically white crystalline powder; odorless or practically odorless.

Odor Threshold: n/f

pH: Aqueous solutions are neutral

Melting Range: 189 - 191° C (begins to sublime at 60° C)

Boiling Point: n/f

Flash Point: n/f

Autoignition Temperature: n/f

Evaporation Rate: n/f

Upper Flammability Limit: n/f

Lower Flammability Limit: n/f

Vapor Pressure: n/f

Vapor Density: n/f

Specific Gravity: n/f

Solubility in Water: Sparingly soluble

Fat Solubility: n/f

Other Solubility: Slightly soluble in alcohol, in ether, and in chloroform.

Partition Coefficient: n-octanol/water: -0.60

Percent Volatile: n/f

Reactivity in Water: n/f

Explosive Properties: n/f

Oxidizing Properties: n/f

Formula: C₅H₅N₃O

Molecular Weight: 123.11

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SECTION 10 - STABILITY AND REACTIVITY

Conditions to Avoid: Avoid exposure to moisture.

Incompatibilities: Oxidizing agents.

Decomposition Products: When heated to decomposition material emits toxic fumes of NOx. Emits toxic fumes under fire conditions.

Stable? Yes **Hazardous Polymerization?** No

SECTION 11 - TOXICOLOGICAL PROPERTIES

Oral Rat: LD50: n/f

Oral Mouse: LD50: n/f

Other Toxicity Data: n/f

Irritancy Data: n/f

Corrosivity: n/f

Sensitization Data: n/f

Listed as a Carcinogen by: **NTP:** No **IARC:** No **OSHA:** No

Other Carcinogenicity Data: No.

Mutagenicity Data: Pyrazinamide was not mutagenic in the Ames bacterial test, but it did induce chromosomal aberrations in human lymphocyte cell cultures.

Reproductive and Developmental Effects: In mice, high doses of pyrazinamide produced decreased fetal weights and survival. High dose studies in rats also produced similar indications of fetotoxicity, but no increase in the incidence of congenital abnormalities.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological Information: n/f

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: Dispose of waste in accordance with all applicable Federal, State and local laws.

SECTION 14 -TRANSPORT INFORMATION

Shipping Name: n/f

Class: n/f

UN Number: n/f

Packing Group: n/f

Additional Transport Information: n/f

SECTION 15 - REGULATORY INFORMATION

U.S. Regulatory Information: EINECS # 202-717-6
Risk phrases: R20/21/22
Safety phrases: S36

International Regulatory Information: n/f

SECTION 16 - OTHER INFORMATION

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Revision: 24-Feb-05

Previous Revision Date: 06-Feb-01