



Material Safety Data Sheet

12601 Twinbrook Parkway,
Rockville, MD 20852 USA

Phone Calls: 301-816-8129
8 a.m. to 5 p.m. EST Mon. - Fri.

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FOLIC ACID

Catalog Number: 1286005

Revision Date:

October 6, 2005

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Common Name: Folic Acid

Manufacturer: U. S. Pharmacopeia

Responsible Party: Reference Standards Technical Services

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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: At doses of up to 15 mg per day, no acute toxic symptoms have been reported with folic acid administration, although gastrointestinal disturbances may occur. Possible allergic reaction to material if inhaled, ingested, or in contact with skin.

Overdose Effects: Large doses may cause loss of appetite; nausea; bitter/bad taste; irritability; confusion; and altered sleep pattern.

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

Chronic: Possible hypersensitization. Large continuous doses of folic acid may lower the blood concentrations of vitamin B12 and interfere with zinc absorption.

Medical Conditions Aggravated by Exposure: Hypersensitivity to material and pernicious anemia.

Cross Sensitivity: n/f

Target Organs: n/f

For additional information on toxicity, see Section 11.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: Folic Acid

Formula: C₁₉H₁₉N₇O₆

Synonym: Vitamin B₉; Pteroylglutamic acid

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Chemical Name: L-Glutamic acid, N-[4-[[[(2-amino-1,4-dihydro-4-oxo-6-pteridiny]methyl]amino]benzoyl]-

CAS: 59-30-3

RTECS Number: LP5425000

Chemical Family: Pteridine

Therapeutic Category: Vitamin (hematopoietic)

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 almost completely 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 labeled 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, light-resistant 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. In the event that a respirator is not required, an approved dust mask should be used.

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:** Yellow to orange-brown crystalline powder; odorless or nearly odorless.**Odor Threshold:** n/f**pH:** 4.0 -4.8 (in 10 ml water)**Melting Range:** Softens, darkens, and chars above 250° 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:** Very slightly soluble**Fat Solubility:** Insoluble in lipid solvents.**Other Solubility:** Slightly soluble in methanol, less soluble in ethanol and in butanol. Insoluble in acetone, in chloroform, in ether, and in benzene. Relatively soluble in acetic acid, in phenol, in pyridine, in solutions of alkali hydroxides, and in carbonates, Soluble in hot diluted HCl and H2SO4.**Partition Coefficient: n-octanol/water:** n/f**Percent Volatile:** n/f**Reactivity in Water:** n/f**Explosive Properties:** n/f**Oxidizing Properties:** n/f**Formula:** C19H19N7O6**Molecular Weight:** 441.41

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SECTION 10 - STABILITY AND REACTIVITY

Conditions to Avoid: Avoid exposure to light.

Incompatibilities: Acid solutions, oxidizing and reducing agents, and heavy metal ions.

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

Stable? Yes **Hazardous Polymerization?** No

SECTION 11 - TOXICOLOGICAL PROPERTIES

Oral Rat: LD50: n/f

Oral Mouse: LD50: 10 grams/kg

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: Folic acid was negative in the Ames test, with and without activation.

Reproductive and Developmental Effects: Adequate and well-controlled pregnancy studies in humans have not shown that folic acid causes any adverse effects on the fetus.

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: n/f

International Regulatory Information: EINECS#: 200-419-0

SECTION 16 - OTHER INFORMATION

Revision: 06-Oct-05

Previous Revision Date: 02-Apr-02