

PRS  
T7-6

## 1. Identification

**Product identifier** Trimethoprim

**Other means of identification**

**Catalog number** 1692505

**Chemical name** 2,4-Pyrimidinediamine, 5-[(3,4,5-trimethoxyphenyl)methyl]-

**Recommended use** Specified quality tests and assay use only.

**Recommended restrictions** Not for use as a drug. Not for administration to humans or animals.

**Manufacturer/Importer/Supplier/Distributor information**

**Company name** U. S. Pharmacopeia

**Address** 12601 Twinbrook Parkway  
Rockville  
MD  
20852-1790  
US

**Telephone** RS Technical Services 301-816-8129

**Website** www.usp.org

**E-mail** RSTECH@usp.org

**Emergency phone number** CHEMTREC within US & 1-800-424-9300  
Canada  
CHEMTREC outside US & +1 703-527-3887  
Canada

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Acute toxicity, oral Category 4

**OSHA hazard(s)** Not classified.

**Label elements**



**Signal word** Warning

**Hazard statement** Harmful if swallowed.

**Precautionary statement**

**Prevention** Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

**Response** If swallowed: Call a poison center/doctor/medical professional/ if you feel unwell. Rinse mouth.

**Storage** Not available.

**Disposal** Dispose of contents/container to an approved disposal site.

**Hazard(s) not otherwise classified (HNOC)** Not classified.

## 3. Composition/information on ingredients

### Substance

### Hazardous components

Chemical name	Common name and synonyms	CAS number	%
Trimethoprim		738-70-5	100

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Rinse skin with water/shower. Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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**Most important symptoms/effects, acute and delayed**

Not available.

**Indication of immediate medical attention and special treatment needed**

Provide general supportive measures and treat symptomatically. Administer activated charcoal as a slurry. Perform gastric lavage. Administer leucovorin to reduce risk of hematopoietic toxicity. For seizures, administer a benzodiazepine intravenously, followed by phenobarbital or propofol if the seizures recur. Monitor for hypotension, dysrhythmias, respiratory depression, and need for endotracheal intubation. Evaluate for hypoglycemia, electrolyte disturbances, hypoxia. Monitor CBC. Monitor liver function. Hemodialysis may be of benefit. Peritoneal dialysis is not effective. (Meditext)

**General information**

Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

## 5. Fire-fighting measures

**Suitable extinguishing media**

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

**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

No unusual fire or explosion hazards noted.

**Special protective equipment and precautions for firefighters**

Wear suitable protective equipment.

**Fire-fighting equipment/instructions**

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

**Specific methods**

Cool containers exposed to flames with water until well after the fire is out.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Wear appropriate personal protective equipment.

**Methods and materials for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid the generation of dusts during clean-up. For waste disposal, see section 13 of the SDS. Wash spill site.

## 7. Handling and storage

**Precautions for safe 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. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly.

**Conditions for safe storage, including any incompatibilities**

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

## 8. Exposure controls/personal protection

**Exposure limit values**

**Industrial Use**

**Material**

**Type**

**Value**

Trimethoprim (CAS 738-70-5)

TWA

500 micrograms/m3

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Airborne exposure should be controlled primarily by engineering controls such as general dilution ventilation, local exhaust ventilation, or process enclosure. Local exhaust ventilation is generally preferred to general exhaust because it can control the contaminant at its source, preventing dispersion into the work area. An industrial hygiene survey involving air monitoring may be used to determine the effectiveness of engineering controls. Effectiveness of engineering controls intended for use with highly potent materials should be assessed by use of nontoxic surrogate materials.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Safety glasses with sideshields are recommended. Face shields or goggles may be required if splash potential exists or if corrosive materials are present. Approved eye protection (e.g., bearing the ANSI Z87 or CSA stamp) is preferred. Maintain eyewash facilities in the work area.



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<b>Skin protection</b>	
<b>Hand protection</b>	Chemically compatible gloves. For handling solutions, ensure that the glove material is protective against the solvent being used. Use handling practices that minimize direct hand contact. Employees who are sensitive to natural rubber (latex) should use nitrile or other synthetic nonlatex gloves. Use of powdered latex gloves should be avoided due to the risk of latex allergy.
<b>Other</b>	For handling of laboratory scale quantities, a cloth lab coat is recommended. Where significant quantities are handled, work clothing may be necessary to prevent take-home contamination.
<b>Respiratory protection</b>	Where respirators are deemed necessary to reduce or control occupational exposures, use NIOSH-approved respiratory protection and have an effective respirator program in place (applicable U.S. regulation OSHA 29 CFR 1910.134).
<b>Thermal hazards</b>	Not available.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Appearance</b>	White to yellow or cream-colored crystalline powder.
<b>Physical state</b>	Solid.
<b>Form</b>	Powder.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	7.5 - 8.5 (1% solution)
<b>Melting point/freezing point</b>	390.2 - 397.4 °F (199 - 203 °C)
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.

### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 0.0000001 kPa at 25 °C
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility in water</b>	Very slightly soluble.
<b>Partition coefficient (n-octanol/water)</b>	0.91
<b>Auto-ignition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

### Other information

<b>Chemical family</b>	Diaminopyrimidine.
<b>Molecular formula</b>	C <sub>14</sub> H <sub>18</sub> N <sub>4</sub> O <sub>3</sub>
<b>Molecular weight</b>	290.32
<b>Solubility (other)</b>	Soluble in benzyl alcohol; sparingly soluble in chloroform and in methanol; slightly soluble in alcohol and in acetone; practically insoluble in ether and in carbon tetrachloride.

## 10. Stability and reactivity

<b>Reactivity</b>	No reactivity hazards known.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	None known.
<b>Incompatible materials</b>	Oxidizing agents.
<b>Hazardous decomposition products</b>	NO <sub>x</sub> . Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions.

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## 11. Toxicological information

### Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	Due to lack of data the classification is not possible.
Skin contact	Due to lack of data the classification is not possible.
Eye contact	Due to lack of data the classification is not possible.
Symptoms related to the physical, chemical, and toxicological characteristics	Bitter or metallic taste. Taste changes. Skin rash. Loss of appetite. Nausea. Vomiting. Diarrhea. Stomach pain. Bleeding or bruising. Mouth ulcers. Headache. Dizziness. Swelling of face. Depression. Confusion. Chills. Fever. Sore throat. Tiredness. Weakness.
Delayed and immediate effects of exposure	Bone marrow depression. Blood disorders. Superinfections.
Medical conditions aggravated by exposure	Kidney impairment. Liver impairment. Megaloblastic anemia due to folic acid deficiency. Blood disorders. Porphyria.
Acute toxicity	Harmful if swallowed.

Product	Species	Test Results
Trimethoprim (CAS 738-70-5)		
Oral LD50	Rat	1500 mg/kg 1350 mg/kg
Acute Oral LD50	Mouse	3960 mg/kg
Skin corrosion/irritation	Due to lack of data the classification is not possible.	
Serious eye damage/eye irritation	Due to lack of data the classification is not possible.	
Respiratory sensitization	Due to lack of data the classification is not possible.	
Skin sensitization	Based on available data, the classification criteria are not met.	
Sensitization Guinea pig maximization assay Result: Non-sensitizing. Species: Guinea pig Organ: Skin		
Germ cell mutagenicity	Based on available data, the classification criteria are not met. Not mutagenic in in vivo and in in vitro tests.	
Carcinogenicity	Due to lack of data the classification is not possible. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
Reproductive toxicity	Based on available data, the classification criteria are not met. Epidemiological studies are not sufficient to determine an association between therapeutic use of this material during pregnancy and an increased incidence of birth defects. This material interferes with folic acid metabolism. This material has caused birth defects in animal studies. This material has caused impaired fertility in animal studies. This material has caused adverse fetal effects in animal studies.	
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.	
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.	
Aspiration hazard	Based on available data, the classification criteria are not met.	

## 12. Ecological information

Ecotoxicity	No ecotoxicity data noted for the ingredient(s).
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Other adverse effects	Not available.



### 13. Disposal considerations

<b>Disposal instructions</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Not available.
<b>Hazardous waste code</b>	Not regulated.
<b>Waste from residues / unused products</b>	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

Not regulated as a hazardous material by DOT.

#### IATA

Not regulated as a dangerous good.

<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available.
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### 15. Regulatory information

<b>US federal regulations</b>	CERCLA/SARA Hazardous Substances - Not applicable.
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One or more components are not listed on TSCA.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

#### Other federal regulations

**Safe Drinking Water Act (SDWA)** Not regulated.

**Food and Drug Administration (FDA)** Not regulated.

#### US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other information, including date of preparation or last revision

Issue date 08-04-2006

Revision date 06-28-2013

Version # 02

Further information Not available.

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**Revision Information** This document has undergone significant changes and should be reviewed in its entirety.

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