

Section 1: Identification

Product Name Hydroxyurea USP
Commercial Name Not available.
Product Use Active pharmaceutical ingredient
Restrictions On Use Not available

Product Code 30-2655

Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
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In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Serious eye damage/eye irritation Category 2B Germ cell mutagenicity Category 2 Carcinogenicity Category 2
CFR 1910.1200 2 Reproductive toxicity Category 1B Specific Target organ toxicity, repeated exposure Category 1 (bone marrow)

Signal Word WARNING

Hazard Statement(s) Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Hydroxyurea USP
% By Weight 100
CAS# 127-07-1
Molecular Weight 76.06 g/mole
Chemical Formula CH₄N₂O₂
Synonym(s) Not available.

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Hydroxyurea USP	127-07-1	100	Not available.	ORAL (LD50): Acute: 5760 mg/kg [Rat]. 7330 mg/kg [Mouse].

Section 4: First-Aid Measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. 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	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Symptoms/Effects	
Acute	Pharmacologically active material. Occupational exposure may cause physiological effects.
Delayed	Pharmacologically active material. Occupational exposure may cause physiological effects.
Immediate Medical Attention	Provide general supportive measures and treat symptomatically.

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Water. Foam. Dry chemical or CO₂. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media

Not available.

Products of Combustion

Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

Firefighters Special Equipment and Precautions

Wear suitable protective equipment. Use water spray to cool unopened containers. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing. Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6: Accidental Release Measures

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Keep unnecessary personnel away. Wear appropriate personal protective equipment. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS. Methods and materials for containment and cleaning up: For waste disposal, see section 13 of the SDS. Avoid the generation of dusts during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination. Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

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. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Combustible dust clouds may be created where operations produce fine material (dust). Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential. 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 Controls/Personal Protection

Exposure Limits	TWA 0.1 mg/m ³
Engineering Controls	For laboratory operations, use local exhaust ventilation or a ventilated enclosure for high energy operations such as particle sizing. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred.

Personal Protection

Eye/face protection: Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available. Skin protection Hand protection: Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent. Other: Train employees in proper gowning and degowning practices. Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors. Respiratory protection: Respirators are generally not required for laboratory operations. Use a tight-fitting full-face respirator with HEPA filters for spill cleanup. Choose respiratory protection appropriate to the task and the level of existing engineering controls. Thermal hazards: Wear appropriate thermal protective clothing, when necessary. General hygiene considerations: Handling practices in this SDS are recommendations for laboratory use of reference standards. Procedures for any other uses or quantities should be determined after an appropriate assessment.

Section 9: Physical and Chemical Properties

Appearance	White. Off-white. solid. powder.		
Odor	Odorless		
Odor Threshold	Not available		
Melting Point	293 - 294.8 °F (145 - 146 °C)	pH	Not available
Freezing Point	Not available	Vapor Pressure	0.00004 kPa at 25 °C
Boiling Point/Range	Not available	Vapor Density	Not available.
Decomposition temperature	Not available.	Viscosity	Not available.
Partition Coefficient: n-octanol/water	-1.8	Evaporation Rate	Not available
Flash Point	Not available.	Autoignition temperature	> 1472 °F (> 800 °C)
Flammability	Not available	Flammability or Explosive Limits:	
		Lower	Not available
		Upper	Not available
Solubility(ies)	Freely soluble in water.		
Other	Benzene: Insoluble. Ethanol: Insoluble. Hot alcohol: Soluble Chemical family Urea. Dust explosion properties Kst 78 bar.m/s St class 1 Weak explosion. Minimum ignition energy (MIE) - dust cloud > 500 mJ Molecular formula C-H4-N2-O2 Molecular weight 76.06 g/mol		

Section 10: Stability and Reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
Chemical Stability	Material is stable under normal conditions
Hazardous Polymerization	No dangerous reaction known under conditions of normal use.
Conditions to Avoid	Contact with incompatible materials
Incompatible Materials	Not available.
Hazardous Decomposition Products	Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions. NOx

Section 11: Toxicological Information**RTECS** YT4900000**Acute Toxicity**

Oral LD50 Rat 5760 mg/kg Acute Oral LD50 Mouse 7330 mg/kg Rat 5760 mg/kg

Skin Corrosion/Irritation

Not available.

Serious Eye Damage/Irritation

Causes Eye irritation

Respiratory or Skin Sensitization

Not available

Germ Cell Mutagenicity

Suspected of causing genetic defects

Carcinogenicity

Suspected of causing cancer. Secondary malignancies are potential delayed effects of many antineoplastic agents, although it is not clear whether the effect is related to their mutagenic or immunosuppressive action. The effect of dose and duration of therapy is also unknown, although risk seems to increase with long-term use.

Reproductive Toxicity

May damage fertility or the unborn child.

Routes of Entry

Eye.

Symptoms Related to Exposure

Gastrointestinal disturbances. Irritation of eyes. Fever. Chills. Cough. Hoarseness. Lower back or side pain. Painful or difficult urination. Bleeding or bruising. Black or bloody stools. Pinpoint red spots on skin. Loss of appetite. Mouth sores. Drowsiness. Skin rash. Itching

Potential Health Effects

Not available.

Target Organ(s)

Causes damage to organs (bone marrow) through prolonged or repeated exposure

Section 12: Ecological Information**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

Not readily degradable.

Bioaccumulative Potential

Octanol/water partition coefficient log Kow -1.8

Mobility in Soil

Information not available

Other Adverse Effects

Information not available

Section 13: Disposal Considerations**Waste Disposal**

Dispose in accordance with all applicable regulations. 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. The waste code should be assigned in discussion between the user, the producer and the waste disposal company. 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).

Disposal of Container

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Other Considerations

Not available

Section 14: Transport Information**DOT Classification**

Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

Section 15: Regulatory Information**Regulations**

US federal regulations: CERCLA/SARA Hazardous Substances - Not applicable. One or more components are not listed on TSCA. This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200 TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated. CERCLA Hazardous Substance List (40 CFR 302.4) Not listed. SARA 304 Emergency release notification Not regulated OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052) Not regulated. SARA 302 Extremely hazardous substance Superfund Amendments and Reauthorization Act of 1986 (SARA) Not listed. YesSARA 311/312 Hazardous chemical Combustible dust Serious eye damage or eye irritation Germ cell mutagenicity Carcinogenicity Reproductive toxicity Specific target organ toxicity (single or repeated exposure) Classified hazard categories SARA 313 (TRI reporting) Not regulated. Other federal regulations Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated. Not regulated. Safe Drinking Water Act (SDWA) US state regulations California Proposition 65 California Proposition 65 - CRT: Listed date/Developmental toxin Hydroxyurea (CAS 127-07-1) Listed: May 1, 1997

Other

Not available.

Section 16: Other Information

Not available.