

Safety Data Sheet

Section 1: Chemical Identification

Chemical Name: (6R,7R)-7-[[2-(2-amino-1,3-thiazol-4-yl)acetyl]amino]-3-[[1-[2-(dimethylamino)ethyl]tetrazol-5-yl]sulfanylmethyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid;hydrochloride

Alternative Name: Cefotiam HCl, Cefotiam dihydrochloride

Catalog Number: C-681-50; C-681-100

Recommended use: Cefotiam HCl is a broad spectrum antibiotic targeting a wide range of gram positive and gram negative bacteria. This product is not for use in humans. It is intended for research purposes only.

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Section 2: Hazardous Information

GHS Classification

Eye irritation (Category 2A)

GHS Label Elements, including Precautionary statements



WARNING

Hazard Statements:

H319: Causes serious eye irritation

Precautionary Statements:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

OSHA Hazards

Combustible liquid, Target Organ Effect, Toxic by ingestion

Potential Health Effects

Eye: Causes eye irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

HMIS Classification

Health hazard:	2
Chronic health hazard	*
Flammability:	0
Physical hazards:	0

NFPA Rating

Health Hazard:	2
Fire:	0
Reactivity Hazard:	0

Section 3: Composition/Information on Ingredients

Identity: (6R,7R)-7-[[2-(2-amino-1,3-thiazol-4-yl)acetyl]amino]-3-[[1-[2-(dimethylamino)ethyl]tetrazol-5-yl]sulfanylmethyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid;hydrochloride

Synonyms: Cefotiam HCl, Cefotiam dihydrochloride

CAS number: 66309-69-1

Molecular Formula: $C_{18}H_{23}N_9O_4S_3 \cdot HCl$

Molecular Weight: 562.08 g/mol

Section 4: First Aid Measures

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Eye: Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

Ingestion: Wash out mouth with water. Drink plenty of water. Consult a physician.

Section 5: Fire Fighting Measures

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards arising from the chemical: During a fire, highly toxic gases may be generated by thermal decomposition or combustion – Carbon oxides, Nitrogen oxides, Sulphur oxides, Hydrogen chloride gas.

Special protective actions for fire-fighters: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2-8 °C. Keep in a dry place.

Section 8: Exposure Controls / Personal Protection

Control parameters: Contains no substances with occupational exposure limit values.

Appropriate engineering controls: Use only in a chemical fume hood. Safety shower and eye bath.

Personal Protective Equipment (PPE)

Eye/Face Protection: Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Other Protective Clothing or Equipment: Wear appropriate protective clothing to prevent exposure.

Section 9: Physical and Chemical Properties

Appearance:	White powder
Odour:	Not available
Odour Threshold:	Not available
pH:	1.4
Melting Point:	Not available
Freezing Point:	Not available
Boiling Point/Range:	940 °C
Flash Point:	522.3 °C
Evaporation Rate:	Not available
Flammability:	Not available
Lower Explosion Limit:	Not available
Upper Explosion Limit:	Not available
Vapour Pressure:	Not available
Vapour Density:	Not available
Relative Density:	Not available
Solubility:	Not available
Partition Coefficient: <i>n</i>-octanol/water	Not available
Auto-Ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available

Section 10: Stability and Reactivity Data

Reactivity: Not available.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Not available.

Conditions to avoid: Incompatible materials.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides, Sulphur oxides, Hydrogen chloride gas.

Section 11: Toxicological Information

Acute toxicity:

Not available.

Skin corrosion/irritation:

Not available.

Respiratory or skin sensitization:

Not available.

Chronic effects:

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals. Laboratory experiments have shown teratogenic effects.

Germ cell mutagenicity:

Not available.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity:

Not available.

STOT-single exposure:

Not available.

STOT-repeated exposure:

Not available.

Aspiration hazard:

Not available.

Likely routes of exposure:

Respiratory organs, mouth, skin, and eyes.

Symptoms of exposure:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information**Toxicity:**

Not available.

Persistence and degradability:

Not available.

Bioaccumulative potential:

Not available.

Mobility in soil:

Not available.

Other adverse effects:

Not available.

Section 13: Disposal Considerations

Only professional staff trained in such techniques must undertake waste disposal. Observe all appropriate federal, provincial or state and local regulations. The material for disposal should be mixed with, or dissolved in, a combustible solvent and burnt in a chemical incinerator equipped with an afterburner and scrubber.

Section 14: Transport Information**US Department of Transportation (DOT)**

Not dangerous goods.

International Maritime Dangerous Goods (IMDG)

Not dangerous goods.

International Air Transport Association (IATA)

Not dangerous goods.

Section 15: Regulatory Information**OSHA Hazards**

Combustible liquid, Target Organ Effect, Toxic by ingestion

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:

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components:

No Components Listed

Pennsylvania Right To Know Components:

Cefotiam HCl

CAS-No.

66309-69-1

New Jersey Right To Know Components:

Cefotiam HCl

CAS-No.

66309-69-1

California Prop. 65 Components:

California Proposition 65: This product does not contain chemical(s) known to the state of California to cause developmental toxicity.

Section 16: Other Information

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Last updated: 06/25/2013