

SAFETY DATA SHEET



GlaxoSmithKline

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Material	FORTAZ (CEFTAZIDIME SODIUM INJECTION)
Synonyms	FORTAZ 1G/50ML * FORTAZ 2G/50ML * NDC NO 0173-0412-00 * NDC NO 0173-0413-00 * CEFTAZIDIME PENTAHYDRATE, FORMULATED PRODUCT
Company Name	GlaxoSmithKline, Corporate Environment, Health & Safety 980 Great West Road Brentford, Middlesex TW8 9GS UK
	UK General Information: +44-20-8047-5000
	Transport Emergency (EU) +44-1865-407333
	Medical Emergency +1-612-221-3999, Ext 221
	Information and Advice: US number, available 24 hours Multi-language response
	 GlaxoSmithKline, Corporate Environment, Health & Safety One Franklin Plaza, 200 N 16th Street Philadelphia, PA 19102-1225 US
	US General Information: +1-888-825-5249
	Transport Emergency (non EU) +1-703-527-3887
	US number, available 24 hours Multi-language response

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS RN	Percentage
CEFTAZIDIME PENTAHYDRATE	78439-06-2	2.5 to 5
NON-HAZARDOUS INGREDIENTS	Unassigned	95.0 to 97.5

3. HAZARDS IDENTIFICATION

Fire and Explosion	Expected to be non-combustible.
* Health	Caution - Pharmaceutical agent. Exposure might occur via skin; eyes; ingestion. May produce allergic skin reactions. Respiratory allergen. Possible effects of overexposure in the workplace include: symptoms of hypersensitivity (such as skin rash, hives, itching, and difficulty breathing); nausea; gastrointestinal distress; vomiting; diarrhoea. Health effects information is based on hazards of components.
Environment	No information is available about the potential of this product to produce adverse environmental effects.

4. FIRST-AID MEASURES

Ingestion	Never attempt to induce vomiting. Do not attempt to give any solid or liquid by mouth if the exposed subject is unconscious or semi-conscious. Wash out the mouth with water. If the exposed subject is fully conscious, give plenty of water to drink. Obtain medical attention.
Inhalation	Physical form suggests that risk of inhalation exposure is negligible.
Skin Contact	Using appropriate personal protective equipment, remove contaminated clothing and flush exposed area with large amounts of water. Obtain medical attention if skin reaction occurs, which may be immediate or delayed.
Eye Contact	Wash immediately with clean and gently flowing water. Continue for at least 15 minutes. Obtain medical attention.

NOTES TO HEALTH PROFESSIONALS

Medical Treatment	Treat according to locally accepted protocols. For additional guidance, refer to the current prescribing information or to the local poison control information centre. Medical treatment in cases of overexposure should be treated as an overdose of a cephalosporin antibiotic. In allergic individuals, exposure to this material may require treatment for initial or delayed allergic symptoms and signs. This may include immediate and/or delayed treatment of anaphylactic reactions.
Medical Conditions Caused or Aggravated by Exposure	Refer to prescribing information for detailed description of medical conditions caused by or aggravated by overexposure to this product. Ocular symptoms may be indicative of allergic reaction. Pulmonary symptoms may indicate allergic reaction or asthma. This material may cause or aggravate allergy to cephalosporin antibiotics.
Antidotes	No specific antidotes are recommended.

5. FIRE-FIGHTING MEASURES

Fire and Explosion Hazards	Not expected for the product, although the packaging is combustible.
Extinguishing Media	Water, dry powder or foam extinguishers are recommended. Carbon dioxide extinguishers may be ineffective.
Special Firefighting Procedures	For single units (packages): No special requirements needed. For larger amounts (multiple packages/pallets) of product: Since toxic, corrosive or flammable vapours might be evolved from fires involving this product and associated packaging, self contained breathing apparatus and full protective equipment are recommended for firefighters. If possible, contain and collect firefighting water for later disposal.
Hazardous Combustion Products	Toxic, corrosive or flammable thermal decomposition products are expected when the product is exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective clothing and equipment consistent with the degree of hazard.
Environmental Precautions	For large spills, take precautions to prevent entry into waterways, sewers, or surface drainage systems.
Clean-up Methods	Collect and place it in a suitable, properly labelled container for recovery or disposal.
Decontamination Procedures	No specific decontamination or detoxification procedures have been identified for this product. Water can be used for clean-up and decontamination operations.

7. HANDLING AND STORAGE

HANDLING

General Requirements No special control measures required for the normal handling of this product. Normal room ventilation is expected to be adequate for routine handling of this product.

STORAGE

No storage requirements necessary for occupational hazards. Follow product information storage instructions to maintain efficacy.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT CEFTAZIDIME PENTAHYDRATE

GSK Occupational Hazard Category 3

GSK Occupational Exposure Limit 100 mcg/m³ (15 MIN STEL) RESPIRATORY SENSITISER, SKIN SENSITISER

Occupational Hygiene Air Monitoring Methods For advice on suitable monitoring methods, seek guidance from a qualified environment, health and safety professional.

ENGINEERING CONTROLS

Exposure Controls An Exposure Control Approach (ECA) is established for operations involving this material based upon the OEL/Occupational Hazard Category and the outcome of a site- or operation-specific risk assessment. Refer to the Exposure Control Matrix for more information about how ECA's are assigned and how to interpret them.

PERSONAL PROTECTIVE EQUIPMENT

Eye Protection Wear approved safety glasses with side shields if eye contact is possible.

Respirators If respiratory protective equipment (RPE) is used, the type of RPE will depend upon air concentrations present, required protection factor as well as hazards, physical properties and warning properties of substances present.

Other Equipment or Procedures Wear appropriate clothing to avoid skin contact. Wash hands and arms thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical Form Frozen solution.

10. STABILITY AND REACTIVITY

Stability This product is expected to be stable.

Conditions to Avoid None for normal handling of this product.

11. TOXICOLOGICAL INFORMATION

- * **Oral Toxicity** Not expected to be toxic following ingestion. Assessment based upon effects of individual components.
- * **Inhalation Toxicity** Overexposure may result in irritation of the respiratory tract. Adverse effects might occur following inhalation.
- * **Skin Effects** Irritation might occur following direct contact. Assessment based upon effects of individual components.
- * **Eye Effects** Minor irritation might occur following direct contact with eyes. Assessment based upon effects of individual components.
- Target Organ Effects** No specific target organ effects have been identified.

* Sensitisation	Allergic skin reactions might occur following dermal exposure. Respiratory sensitisation (allergic) reactions might occur following exposure. Assessment based upon effects of individual components.
* Genetic Toxicity	Not expected to be genotoxic under occupational exposure conditions. Assessment based upon effects of individual components.
Carcinogenicity	Not expected to produce cancer in humans under occupational exposure conditions. No components are listed as carcinogens by GSK, IARC, NTP or US OSHA.
* Reproductive Effects	Not expected to produce adverse effects on fertility or development under occupational exposure conditions. No adverse effects have been reported following extensive use or exposure in humans. Assessment based upon effects of individual components.
* Pharmacological Effects	This material is an antibiotic; a cephalosporin. It is an agent intended for the treatment of bacterial infections. Adverse effects of overexposure might include: symptoms of hypersensitivity (such as skin rash, hives, itching, and difficulty breathing) nausea; vomiting; gastrointestinal distress; diarrhoea.
* Other Adverse Effects	None known for this material in humans.

12. ECOLOGICAL INFORMATION

Summary This material contains an active pharmaceutical ingredient that has been tested and which may be harmful if released directly to the environment. Consult the MSDS of the active ingredient for specific information about potential environmental effects. Appropriate precautions should be taken to limit release of this material to the environment. Local regulations and procedures should be consulted prior to environmental release.

Specific information on the active pharmaceutical ingredient is provided below.

ECOTOXICITY

Aquatic

Activated Sludge Respiration

This material contains an active pharmaceutical ingredient that is not toxic to activated sludge microorganisms.

IC50: > 103 mg/l, 3 Hours, Activated sludge, Nominal

NOEC: 103 mg/l

Microbial Growth Inhibition

This material contains an active pharmaceutical ingredient that is harmful to these microorganisms.

Minimum Inhibition Concentration: 2 mg/l, Pseudomonas, Measured

Algal

This material contains an active pharmaceutical ingredient that is very toxic to algae.

IC50: 0.025 mg/l, 72 Hours, Measured

NOEL: 0.013 mg/l

* Daphnid

This material contains an active pharmaceutical ingredient that is not toxic to daphnids.

EC50: > 106 mg/l, 48 Hours, Daphnia magna, Measured

NOEL: 106 mg/l

Fish This material contains an active pharmaceutical ingredient that is not toxic to fish.

Juvenile *Oncorhynchus mykiss*, rainbow trout

EC50: > 106 mg/l, 96 Hours, Measured

NOEL: 106 mg/l

MOBILITY

Solubility This material contains an active pharmaceutical ingredient that for environmental fate predictions has solubility in water.

Adsorption This material contains an active pharmaceutical ingredient that is not likely to adsorb to soil or sediment if released directly to the environment. This material contains an active pharmaceutical ingredient that is not likely to adsorb to sludge or biomass if released directly to the environment.

Soil Sediment Sorption 0.78, Measured at pH 7
(log Koc):

Partitioning This material contains an active pharmaceutical ingredient with octanol/water partition coefficient data that suggests that for environmental fate predictions the active pharmaceutical ingredient will not have the tendency to distribute into fats.

PERSISTENCE/DEGRADATION

Hydrolysis This material contains an active pharmaceutical ingredient that has been shown to be chemically unstable in water. Hydrolysis may be a significant depletion mechanism.

Half-Life, Acidic: < 100 Hours, Measured

Half-Life, Basic: < 1 Hours, Measured

Photolysis

Biodegradation This material contains an active pharmaceutical ingredient that is not readily biodegradable but is inherently biodegradable (as defined by 1993 OECD Testing Guidelines) and is not expected to persist in the environment. Cephalosporins are generally susceptible to degradation by a number of micro-organisms found in wastewater treatment plants and the general environment. Resulting degradation products are readily mineralised by environmental micro-organisms.

Aerobic - Inherent

Percent Degradation: 34 %, 14 days, Modified Zahn-Wellens, primary biodegradation, loss of parent., Activated sludge

13. DISPOSAL CONSIDERATIONS

Disposal Recommendations Collect for recycling or recovery if possible. The disposal method for rejected products/returned goods must ensure that they cannot be re-sold or re-used.

Regulatory Requirements Observe all local and national regulations when disposing of this product.

14. TRANSPORT INFORMATION

The SDS should accompany all shipments for reference in the event of spillage or accidental release. Only authorised persons trained and competent in accordance with appropriate national and international regulatory requirements may prepare dangerous goods for transport.

UN Classification and Labelling

Transport Information Transportation and shipping of this product is not restricted. It has no known, significant hazards requiring special packaging or labelling for air, maritime, US or European ground transport purposes.

15. REGULATORY INFORMATION

The information included below is an overview of the major regulatory requirements. It should not be considered to be an exhaustive summary. Local regulations should be consulted for additional requirements.

EU Classification and Labelling

Exempt from requirements of EU Dangerous Preparations directive - product regulated as a medicinal product, cosmetic product or medical device.

US OSHA Standard (29 CFR Part 1910.1200)

Classification This dosage form is exempt from the requirements of the OSHA Hazard Communication Standard.

Other US Regulations

TSCA Status Exempt

16. OTHER INFORMATION

References GSK Hazard Determination

Date Approved/Revised 04-Sep-2007

SDS Version Number 6

SDS Sections Updated

Sections

HAZARDS IDENTIFICATION
TOXICOLOGY INFORMATION

Subsections

Health
Eye Effects
Genetic Toxicity
Inhalation Toxicity
Oral Toxicity
Other Adverse Effects
Pharmacological Effects
Reproductive Effects
Sensitisation
Skin Toxicity

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, express or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.