



Version: 1.0

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING Product Identifier

Material Name: Ceftazidime for Injection (Hospira, Inc.)

Trade Name: Chemical Family: Not applicable Cephalosporin antibiotic

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against Intended Use: Pharmaceutical product used as antibiotic agent

Details of the Supplier of the Safety Data Sheet Hospira, A Pfizer Company 275 North Field Drive Lake Forest, Illinois 60045 1-800-879-3477

Emergency telephone number: CHEMTREC (24 hours): 1-800-424-9300 Contact E-Mail: pfizer-MSDS@pfizer.com

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification

Serious Eye Damage/Eye Irritation: Category 2A Respiratory Sensitization: Category 1 Skin Sensitization: Category 1

US OSHA Specific - Classification

Physical Hazard: Combustible Dust

Label Elements

Signal Word: Hazard Statements: Danger H317 - May cause an allergic skin reaction H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H319 - Causes serious eye irritation May form combustible dust concentrations in air

Hospira UK Limited Horizon Honey Lane Hurley Maidenhead, SL6 6RJ United Kingdom Emergency telephone number: International CHEMTREC (24 hours): +1-703-527-3887

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Precautionary Statements:	P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
-	P272 - Contaminated work clothing must not be allowed out of the workplace
	P280 - Wear protective gloves/protective clothing/eye protection/face protection
	P285 - In case of inadequate ventilation wear respiratory protection
	P304 + P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing
	P302+ P352 - IF ON SKIN: Wash with plenty of soap and water
	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
	P337 + P313 - If eye irritation persists: Get medical advice/attention
	P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
	P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician
	P363 - Wash contaminated clothing before reuse
	P501 - Dispose of contents/container in accordance with all local and national regulations



Other Hazards

Note:

An Occupational Exposure Value has been established for one or more of the ingredients (see Section 8).

This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the active substance or its intermediates regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	GHS Classification	%
Ceftazidime	78439-06-2	Not Listed	Resp. Sens. 1 (H334) Skin Sens. 1 (H317)	88-90
Sodium carbonate monohydrate	5968-11-6	Not Listed	Eye Irrit. 2 (H319)	12

Additional Information:

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

For the full text of the CLP/GHS abbreviations mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact:

Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

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Skin Contact:	Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention. For information on potential delayed effects, see Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.
Ingestion:	Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.
Inhalation:	Remove to fresh air and keep patient at rest. Seek medical attention immediately.
Most Important Symptoms and Effe Symptoms and Effects of Exposure: Medical Conditions Aggravated by Exposure:	Ects, Both Acute and Delayed For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information. None known
Indication of the Immediate Medica Notes to Physician:	I Attention and Special Treatment Needed None

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use carbon dioxide, dry chemical, or water spray.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion	Emits toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides and other
Products:	sulfur-containing compounds.

Fire / Explosion Hazards: Fine particles (such as dust and mists) may fuel fires/explosions.

Advice for Fire-Fighters

Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

Measures for Cleaning /	Contain the source of spill if it is safe to do so. Collect spilled material by a method that
Collecting:	controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of
	dry solids. Clean spill area thoroughly.

Additional Consideration for
Large Spills:Non-essential personnel should be evacuated from affected area. Report emergency
situations immediately. Clean up operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Minimize dust generation and accumulation. Avoid breathing dust. When handling, use appropriate personal protective equipment (see Section 8). Wash hands and any exposed skin after removal of PPE. Refer to Section 12 - Ecological Information, for information on potential effects on the environment. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

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Conditions for Safe Storage, Including any IncompatibilitiesStorage Conditions:Store as directed by product packaging.Specific end use(s):Pharmaceutical drug product

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

Ceftazidime

Pfizer Occupational Exposure OEB 1 - Sensitizer (control exposure to the range of 1000ug/m³ to 3000ug/m³) **Band (OEB)**:

Exposure Controls

Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.
Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE). Contact your safety and health professional or safety equipment supplier for assistance in selecting the correct protective clothing/equipment based on an assessment of the workplace conditions, other chemicals used or present in the workplace and specific operational processes.
Impervious gloves (e.g. Nitrile, etc.) are recommended if skin contact with drug product is possible and for bulk processing operations. (Protective gloves must meet the standards in accordance with EN374, ASTM F1001 or international equivalent.)
Wear safety glasses or goggles if eye contact is possible. (Eye protection must meet the standards in accordance with EN166, ANSI Z87.1 or international equivalent.)
Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations. (Protective clothing must meet the standards in accordance with EN13982, ANSI 103 or international equivalent.)
Under normal conditions of use, if the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL (e.g. particulate respirator with a half mask, P3 filter). (Respirators must meet the standards in accordance with EN140, EN143, ASTM F2704-10 or international equivalent.)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Powder	Color:	White to off-white
Odor:	No data available.	Odor Threshold:	No data available.
Molecular Formula:	Mixture	Molecular Weight:	Mixture
Solvent Solubility: Water Solubility: pH: Melting/Freezing Point (°C): Boiling Point (°C): Partition Coefficient: (Method, pH, E Ceftazidime Measured 7 Log D -2.21 Sodium carbonate monohydrate No data available Decomposition Temperature (°C):	No data available No data available No data available. No data available No data available. Endpoint, Value)		

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Evaporation Rate (Gram/s):No data availableVapor Pressure (kPa):No data availableVapor Density (g/ml):No data availableRelative Density:No data availableViscosity:No data available

Flammablity:

Autoignition Temperature (Solid) (°C): Flammability (Solids): Flash Point (Liquid) (°C): Upper Explosive Limits (Liquid) (% by Vol.): Lower Explosive Limits (Liquid) (% by Vol.): Polymerization: No data available Will not occur

10. STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Possibility of Hazardous Reactions Oxidizing Properties: Conditions to Avoid: Incompatible Materials: Hazardous Decomposition Products: No data available Stable under normal conditions of use.

No data available Fine particles (such as dust and mists) may fuel fires/explosions. As a precautionary measure, keep away from strong oxidizers No data available

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects General Information:	The information included in this section describes the potential hazards of the individual ingredients.
Short Term:	Inhalation of significant quantities of this substance could result in the health effects described in 'Known clinical effects'. Ingestion of this material can cause effects similar to those seen in clinical use including cholinergic crisis, characterized by severe nausea, vomiting, salivation, sweating, slow heart rate, low blood pressure, muscle weakness, respiratory depression.
Known Clinical Effects:	May cause effects similar to those seen in clinical use including transient diarrhea, nausea and abdominal pain. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. Pseudomembranous colitis (manifested by watery diarrhea, urge to defecate, abdominal cramps, low-grade fever, bloody stools, and abdominal pain) may also occur. Concomitant administration of aminoglycosides and cephalosporins has caused nephrotoxicity. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

Acute Toxicity: (Species, Route, End Point, Dose)

Ceftazidime

RatIntravenousLD506100mg/kgRatSubcutaneousLD5020g/kgRatOralLD50> 20,000mg/kgAcute Toxicity Comments:A

A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

Irritation / Sensitization: (Study Type, Species, Severity)

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11. TOXICOLOGICAL INFORMATION

Ceftazidime

Skin Irritation	Rabbit	Non-irritating	
Eye Irritation	Rabbit	Slight	
Skin Irritation / Sensitization			

Hypersensitivity reactions, including cross reactions (with penicillins) and anaphylaxis, are common among the cephalosporins.

Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

Ceftazidime

Fertility and Embryonic Development Rat No route specified40 x human dose NOAEL No effects at maximum dose

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

Ceftazidime

Bacterial Mutagenicity (Ames) Salmonella Negative Micronucleus Mouse Negative

Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Environmental Overview: The environmental characteristics of this material have not been fully evaluated. Releases to the environment should be avoided.

Toxicity:

Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

Ceftazidime

Anabaena flos-aquae (Cyanobacteria) EC50 72 Hours 0.025 mg/L OECD EC50 > 120 mg/L Green algae 72 Hours Daphnia Magna (Water Flea) EC50 48 Hours > 106 mg/L Daphnia magna (Water Flea) OECD EC50 48 Hours > 120 mg/L Oncorhynchus mykiss (Rainbow Trout) LC50 96 Hours > 106 mg/L Daphnia magna (Water Flea) OECD EC50 21 Days 100 mg/L Pimephales promelas (Fathead Minnow) OECD NOEC 28 Days 2 mg/L

Persistence and Degradability: No data available

 Bio-accumulative Potential:
 No data available

 Partition Coefficient: (Method, pH, Endpoint, Value)

 Ceftazidime

 Measured
 7

 Log D
 -2.21

Mobility in Soil: No data available

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13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:Dispose of waste in accordance with all applicable laws and regulations. Member State
specific and Community specific provisions must be considered. Considering the relevant
known environmental and human health hazards of the material, review and implement
appropriate technical and procedural waste water and waste disposal measures to prevent
occupational exposure and environmental release. It is recommended that waste minimization
be practiced. The best available technology should be utilized to prevent environmental
releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Ceftazidime	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
EU EINECS/ELINCS List	Not Listed
Sodium carbonate monohydrate	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

16. OTHER INFORMATION

Text of CLP/GHS Classification abbreviations mentioned in Section 3

Sensitization, respiratory-Cat.1; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled Sensitization, skin-Cat.1; H317 - May cause an allergic skin reaction Serious eye damage/eye irritation-Cat.2A; H319 - Causes serious eye irritation

Data Sources:	Publicly available toxicity information.
Reasons for Revision:	New data sheet.
Revision date:	01-Feb-2017

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Prepared by:

Product Stewardship Hazard Communication Pfizer Global Environment, Health, and Safety Operations

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End of Safety Data Sheet