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

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#### Material Name: Ceftriaxone for Injection USP

Trade Name:	Not established
Chemical Family:	Cephalosporin antibiotic
Intended Use:	Pharmaceutical product used as antibiotic agent

#### 2. HAZARDS IDENTIFICATION

Appearance: Signal Word:	White powder DANGER
Statement of Hazard:	May cause allergic skin reaction. May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.
Additional Hazard Information:	
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.
EU Indication of danger:	Harmful Irritant
EU Hazard Symbols:	

#### azard Symbols:



**EU Risk Phrases:** 

R42 - May cause sensitization by inhalation. R43 - May cause sensitization by skin contact.

## 2. HAZARDS IDENTIFICATION Australian Hazard Classification (NOHSC): Non-Dangerous Goods. Hazardous Substance. Note: This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known bazards of the active substance or its intermediates

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	EU Classification	%
Ceftriaxone sodium		74578-69-1	277-930-0	Xn;R42/43	100
Additional Information: For the full text of the R phrases me	Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.				
4. FIRST AID MEASURES					
Eye Contact:	Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.				
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.				
Symptoms and Effects of Exposure:	For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.				
5. FIRE FIGHTING MEASURES					
Extinguishing Media:	Use ca	rbon dioxide, dry ch	nemical, or water spray.		
Hazardous Combustion Products:		oxic fumes of carbo containing compoun	n monoxide, carbon dioxide ds.	, nitrogen oxides, sulf	ur oxides and other
Fire Fighting Procedures:	Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear.				

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

#### 6. ACCIDENTAL RELEASE MEASURES

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

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Measures for Cleaning / Collecting:	Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly.
Measures for Environmental Protections:	Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.
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	

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

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ceftriaxone sodium Pfizer Occupational Exposure Band (OEB):	OEB 1 - Sensitizer (control exposure to the range of >1000ug/m <sup>3</sup> to < $3000ug/m^3$ )
Engineering Controls:	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. Engineering controls should be used as the primary means to control exposures.
Environmental Exposure Controls:	Refer to specific Member State legislation for requirements under Community environmental legislation.
Personal Protective Equipment:	Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).
Hands:	Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.
Eyes:	Wear safety glasses or goggles if eye contact is possible.
Skin:	Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.
Respiratory protection:	If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Powder	Color:	White
Molecular Formula:	C18-H18-N8-O7-S3.2Na	Molecular Weight:	661.60

**Polymerization:** 

Will not occur

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#### **10. STABILITY AND REACTIVITY**

Chemical Stability:	Stable under normal conditions of use.
Conditions to Avoid:	Fine particles (such as dust and mists) may fuel fires/explosions.
Incompatible Materials:	As a precautionary measure, keep away from strong oxidizers

**11. TOXICOLOGICAL INFORMATION** 

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

#### Ceftriaxone sodium

 Rat
 Oral
 LD50
 > 10 g/kg

 Rat
 Subcutaneous
 LD50
 > 5 g/kg

 Acute Toxicity Comments:
 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) Skin Irritation / Sensitization Hypersensitivity rea

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))

#### Ceftriaxone sodium

2 Generation Reproductive Toxicity Rat Intravenous 586 mg/kg/day NOAEL No effects at maximum dose

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

#### **Ceftriaxone sodium**

*In Vitro* Bacterial Mutagenicity (Ames) *Salmonella*, *E. coli* Negative *In Vitro* Micronucleus Mouse Negative *In Vitro* Chromosome Aberration Human Lymphocytes Negative

Carcinogen Status: Not listed as a carcinogen by IARC, NTP or US OSHA.

<b>12. ECOLOGICAL INFORMA</b>	TION
Environmental Overview:	The environmental characteristics of this material have not been fully evaluated. Releases to the environment should be avoided.

#### 13. DISPOSAL CONSIDERATIONS

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

#### **14. TRANSPORT INFORMATION**

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

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

#### **15. REGULATORY INFORMATION**

EU Symbol: EU Indication of danger:	Xn Harmful Irritant
EU Risk Phrases:	R42 - May cause sensitization by inhalation. R43 - May cause sensitization by skin contact.
EU Safety Phrases:	S22 - Do not breathe dust. S24 - Avoid contact with skin. S36/37 - Wear suitable protective clothing and gloves.

OSHA Label: DANGER May cause allergic skin reaction. May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

#### **Canada - WHMIS: Classifications**

WHMIS hazard class: Class D, Division 2, Subdivision A Class D, Division 2, Subdivision B



Ceftriaxone sodium EU EINECS/ELINCS List

277-930-0

#### **16. OTHER INFORMATION**

#### Text of R phrases mentioned in Section 3

R42 - May cause sensitization by inhalation. R43 - May cause sensitization by skin contact. **Data Sources:** Publicly available toxicity information.

Reasons for Revision:

Updated Section 8 - Exposure Controls / Personal Protection.

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#### Prepared by:

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

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End of Safety Data Sheet