



Cefuroxime Sodium

Effective Date: 12-Apr-2000

Eli Lilly and Company
Material Safety Data Sheet

Section 1 - Chemical Product and Company

Manufacturer:
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, IN 46285

Manufacturer's Emergency Phone:
1-317-276-2000
CHEMTREC:
1-800-424-9300 (North America)
1-703-527-3887 (International)

Common Name: Cefuroxime Sodium

CAS Number(s): 56238-63-2

EC Number: 2600-73-1

Chemical Name: 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[[(aminocarbonyl)oxy]methyl]-7-[[[(2Z)-2-furanyl(methoxyimino)acetyl]amino]-8-oxo-, monosodium salt (6R,7R)-

Chemical Name 2: Sodium (6R,7R)-7-[2-(2-furyl)glyoxylamido]-3-(hydroxymethyl)-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylate, 7(2)-(Z)-(O-methyloxime), carbamate (ester)

Chemical Family: Cephalosporin

Chemical Formula: C₁₆ H₁₅ N₄ O₈ S . Na

Molecular Weight: 446.370000

Synonym(s): Cefuroxime Sodium for Injection; Sterile Cefuroxime Sodium

Trademarks(s): Kefurox; Cexim; Keroxime; Lifurom; Lifurox; Zinacef

Lilly Serial Number(s): 108487

Lilly Item Code(s): FS7276; FS7277; MS8457; MS8458; ND0929; ND0932; QA292E; QA397W; QA470M; QI0244; SI0150; SI0155; UC5357; UC5358; UC5359; UC5360; UC5361; UC5362; UC5363; UC8994; UC8995; UC8996; UC8997; UC9500; UC9501; UC9502; UG9009; UG9010; UG9011; UG9012; UG9013; VL7270; VL7271; VL7272; VL7273; VL7274; VL7275; VL7278; VL7279; VL7552

See attached glossary for abbreviations.

Section 2 - Composition / Information on Ingredients

<u>Ingredient</u>	<u>CAS</u>
Cefuroxime Sodium	56238-63-2

Exposure Guidelines: LEG <100 micrograms/m³ TWA for 12 hours.

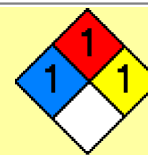
Section 3 - Hazards Identification

Appearance: Off-white powder

Physical State: Solid

Odor: Odorless

Emergency Overview



Special
A = Allergen

Emergency Overview Effective Date: 29-Oct-1998

Lilly Laboratory Labeling Codes:

Health 1

Fire 1

Reactivity 1

Special A

Primary Physical and Health Hazards: Severe Allergen.

Caution Statement: Cefuroxime Sodium causes severe allergic reactions.

Routes of Entry: Inhalation and skin contact.

Effects of Overexposure: Based on prior experience with cephalosporin antibiotics, allergic reactions might be expected, including rash, nasal congestion, cough, dry throat, eye irritation, or anaphylactic shock.

Medical Conditions Aggravated by Exposure: Hypersensitivity to penicillin or cephalosporin.

Carcinogenicity: No carcinogenicity data found. Not listed by IARC, NTP, ACGIH, or OSHA.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water. Get medical attention.

Skin: Remove contaminated clothing and clean before reuse. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation develops.

Inhalation: Move individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, provide artificial respiration assistance (mouth-to-mouth) and call a physician immediately.

Ingestion: Do not induce vomiting. Call a physician or poison control center. If available, administer activated charcoal (6-8 heaping teaspoonfuls) two to three glasses of water. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

Section 5 - Fire Fighting Measures

Flash Point: No applicable information found

UEL: No applicable information found

LEL: No applicable information found

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

Unusual Fire and Explosion Hazards: As a finely divided material, may form dust mixtures in air which could explode if subjected to an ignition source.

Hazardous Combustion Products: May emit toxic fumes when exposed to heat or fire.

Section 6 - Accidental Release Measures

Spills: Wear protective equipment, including eye protection, to avoid exposure (see Section 8 for specific handling precautions). Vacuum material with appropriate dust collection filter in place. Be aware of potential for dust explosion when using electrical equipment. If vacuum is not available, lightly mist material and remove by sweeping or wet wiping.

Section 7 - Handling and Storage

Storage Conditions: Controlled Room Temperature: 15 to 30 C (59 to 86 F).

Section 8 - Exposure Controls / Personal Protection

See Section 2 for Exposure Guideline information.

Respiratory Protection: Use an approved respirator.

Eye Protection: Chemical goggles and/or face shield.

Ventilation: Laboratory fume hood or local exhaust ventilation.

Other Protective Equipment: Chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.

Additional Exposure Precautions: In production settings, airline-supplied, hood-type respirators are preferred. Shower and change clothing if skin contact occurs.

Section 9 - Physical and Chemical Properties

Appearance: Off-white powder

Odor: Odorless

Boiling Point: No applicable information found

Melting Point: Decomposes on heating

Specific Gravity: No applicable information found

pH: 6.0-8.5 (10% aqueous solution)

Evaporation Rate: No applicable information found

Water Solubility: Soluble

Vapor Density: No applicable information found

Vapor Pressure: No applicable information found

Section 10 - Stability and Reactivity

Stability: Stable at normal temperatures and pressures. Data have not been generated for this material at elevated temperatures.

Incompatibility: May react with strong oxidizing agents (e.g., peroxides, permanganates, nitric acid, etc.).

Hazardous Decomposition: May emit toxic fumes when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

Acute Exposure

Oral: Rat, median lethal dose 10.4 g/kg.

Skin: Rabbit, 200 mg/kg, no deaths or toxicity.

Inhalation: Rat, 1180 mg/m³ for 4 hours, no deaths, body weight loss.

Intravenous: Rat, median lethal dose 8000 mg/kg.
Monkey, 1000 mg/kg, no deaths or toxicity.

Skin Contact: Rabbit, slight irritant

Eye Contact: Rabbit, slight irritant

Chronic Exposure

Target Organ Effects: Blood effects (decreased white blood cell count, decreased red blood cell count), kidney effects (increased urine output, kidney tissue changes), digestive effects (diarrhea, vomiting).

Reproduction: Reproduction studies have been performed in mice at doses up to 6400 mg/kg per day and rabbits at doses up to 400 mg/kg per day and have revealed no evidence of impaired fertility or

harm to the fetus due to cefuroxime.

Sensitization: Guinea pig, not a contact sensitizer.

Mutagenicity: Negative in the mouse lymphoma assay and a battery of bacterial mutation tests. Positive results were obtained in an in vitro chromosome aberration assay, however, negative results were found in an in vivo micronucleus test at doses up to 10 g/kg.

Section 12 - Ecological Information

No applicable ecological information found.

Section 13 - Disposal Considerations

Waste Disposal: Dispose of any cleanup materials and waste residue according to all applicable laws and regulations.

Section 14 - Transport Information

Regulatory Organizations:

DOT: Not Regulated

ICAO/IATA: Not Regulated

IMO: Not Regulated

Section 15 - Regulatory Information

Below is selected regulatory information chosen primarily for possible Eli Lilly and Company usage. This section is not a complete analysis or reference to all applicable regulatory information. Please consider all applicable laws and regulations for your country/state.

U.S. Regulations

TSCA - No

CERCLA - Not on this list

SARA 302 - Not on this list

SARA 313 - Not on this list

OSHA Substance Specific - No

EU Regulations

EC Classification

Xn (Harmful)

Risk Phrases

R 42/43 - May cause sensitization by inhalation and skin contact.

Safety Phrases

S 22 - Do not breathe dust.

S 24 - Avoid contact with skin.

Section 16 - Other Information

MSDS Sections Revised: Section 1.

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:

Eli Lilly and Company
Hazard Communication
317-277-6029

For additional copies contact:

Eli Lilly and Company
1-800-LILLY-Rx (1-800-545-5979)

GLOSSARY:

ACGIH = American Conference of Governmental Industrial Hygienists

AIHA = American Industrial Hygiene Association

BEI = Biological Exposure Index

CAS Number = Chemical Abstract Service Registry Number

CERCLA = Comprehensive Environmental Response Compensation and Liability Act (of 1980)

CHAN = Chemical Hazard Alert Notice

CHEMTREC = Chemical Transportation Emergency Center

DOT = Department of Transportation

EC = European Community

EINECS = European Inventory of Existing Chemical Substances

ELINCS = European List of New Chemical Substances

EPA = Environmental Protection Agency

HEPA = High Efficiency Particulate Air (Filter)

IARC = International Agency for Research on Cancer

ICAO/IATA = International Civil Aviation Organization/International Air Transport Association

IEG = Lilly Interim Exposure Guideline

IMO = International Maritime Organization

Kow = Octanol/Water Partition Coefficient

LEG = Lilly Exposure Guideline
LEL = Lower Explosive Limit
MSDS = Material Safety Data Sheet
MSHA = Mine Safety and Health Administration
NA = Not Applicable, except in Section 14 where NA = North America
NADA = New Animal Drug Application
NAIF = No Applicable Information Found
NCI = National Cancer Institute
NIOSH = National Institute for Occupational Safety and Health
NOS = Not Otherwise Specified
NTP = National Toxicology Program
OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit (OSHA)
RCRA = Resource Conservation and Recovery Act
RQ = Reportable Quantity
RTECS = Registry of Toxic Effects of Chemical Substances
SARA = Superfund Amendments and Reauthorization Act
STEG = Lilly Short Term Exposure Guideline
STEL = Short Term Exposure Limit
TLV = Threshold Limit Value (ACGIH)
TPQ = Threshold Planning Quantity
TSCA = Toxic Substances Control Act
TWA = Time Weighted Average/8 Hours Unless Otherwise Noted
UEL = Upper Explosive Limit
UN = United Nations
WEEL = Workplace Environmental Exposure Level (AIHA)