



# Cefazolin Sodium

Effective Date: 25-Feb-2006

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:** Cefazolin Sodium

**CAS Number(s):** 27164-46-1

**EC Number:** 248-278-4

**Chemical Name:** 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[[(5-methyl-1,3,4-thiadiazol-2-yl)thio]methyl]-8-oxo-7-[(1H-tetrazol-1-ylacetyl)amino]-, monosodium salt, (6R, 7R)-

**Chemical Family:** Cephalosporin

**Chemical Formula:** C<sub>14</sub> H<sub>13</sub> N<sub>8</sub> O<sub>4</sub> S<sub>3</sub> . Na

**Molecular Weight:** 476.5

**Synonym(s):** 081731 Sodium; Cefazolin Sodium for Injection; Sterile Cefazolin Sodium

**Trademarks(s):** Kefzol; Cefrina; Elzogram; Kefazol; Kefol; Kefzolan; Kezolin; Novaporin

**Lilly Serial Number(s):** 046083

**Lilly Item Code(s):** AM0766; AM0767; AM0768; AM0787; AM0788; AM0791; AM0792; AM0793; AM0795; AM0806; AM0808; AM0818; AM0819; AM0820; AM0821; AM0822; AM0823; AM7011; AM7014; AM7018; AM7024; AM7025; AM7047; AM7048; AM7049; AM7058; FS7201; FS7202; ID0811; ID0821; ND0583; ND0652; ND0927; ND0930; QA184N; QA191M; QA287W; QA340C; QA345A; QA350M; QA376Y; QA377C; QA380Y; QA381H; QA423D; QI0139; RV7081; RV7082; RV7083; SI0106; SI0766; UC5389; UC5390; UC9504; UC9505; VF0126; VF0140; VF0151; VF0186; VF0187; VL0766; VL0767; VL0768; VL0808; VL0822; VL7011; VL7014; VL7018; VL7021; VL7201; VL7202; VL7265; VL7266; VL7327; VL7328; VL7424; VL7425; VL7426; VL7546; VL7547; VL7548; VL7549; VL7550; VL7551

See attached glossary for abbreviations.

## Section 2 - Composition / Information on Ingredients

<b>Ingredient</b>	<b>CAS</b>
Cefazolin Sodium	27164-46-1

**Exposure Guidelines:** LEG <100 micrograms/m<sup>3</sup> TWA for 12 hours.

## Section 3 - Hazards Identification

**Appearance:** White to off-white crystalline powder or lyophilized plug

**Physical State:** Solid

**Odor:** Odorless

### Emergency Overview



Special  
A = Allergen

**Emergency Overview Effective Date:** 26-Jun-1993

**Lilly Laboratory Labeling Codes:**

Health 1

Fire 1

Reactivity 0

Special A

**Primary Physical and Health Hazards:** Severe Allergen.

**Caution Statement:** Cefazolin 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 teaspoons) with 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:** Avoid moisture. If less than 6% moisture: Controlled Room Temperature: 15 to 30 C (59 to 86 F). If more than 6% moisture: Refrigerator: 2 to 8 C (36 to 46 F).

## Section 8 - Exposure Controls / Personal Protection

See Section 2 for Exposure Guideline information.

Under normal use and handling conditions, no protective equipment is required. The following is recommended for a production setting:

**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:** White to off-white crystalline powder or lyophilized plug

**Odor:** Odorless

**Boiling Point:** No applicable information found

**Melting Point:** Decomposes on heating

**Specific Gravity:** No applicable information found

**pH:** 4.5-6.0 (10% 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.

**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, 11 g/kg, no deaths, reduced respiration, reduced activity.

**Skin:** Rabbit, 500 mg/kg, no deaths or toxicity.

**Inhalation:** Rat, 500 mg/m<sup>3</sup> for 1 hour, no deaths or toxicity.

**Intravenous:** Rat, median lethal dose between 2400 mg/kg and 3700 mg/kg, reduced respiration, convulsions, increased activity, reduced activity.

Dog, median lethal dose 2200 mg/kg, convulsions, tremors, relaxation of limb muscles, reduced appetite, diarrhea, salivation.

**Skin Contact:** Rabbit, nonirritant

**Eye Contact:** Rabbit, slight irritant

### Chronic Exposure

**Target Organ Effects:** No effects identified in animal studies.

**Reproduction:** No effects identified in animal studies.

**Sensitization:** No applicable information found.

**Mutagenicity:** No applicable information found.

## 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 36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

## Section 16 - Other Information

**MSDS Sections Revised:** Section 16.

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  
317-651-9533

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)