1 Identification

Product identifier

Product name: Cephalothin sodium salt

Stock number: J65607

CAS Number: 58-71-9

EC number: 200-394-6

Relevant identified uses of the substance or mixture and uses advised against.

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

GHS08 Health hazard

Resp. Sens. 1, H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

Hazard not otherwise classified No information known.

Label elements

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

GHS pictograms

GHS08

Signal word Danger

Hazard statements

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

Precautionary statements

P284 In case of inadequate ventilation wear respiratory protection.

P308 Wear protective gloves/protective clothing/eye protection/face protection.

P331 Avoid exposure - if you feel unwell.

P361 Remove contaminated clothing and wash immediately with soap and water.

P304+P311 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

WHMIS classification

D2A - Very toxic material causing other toxic effects

Classification system

HMIS ratings (scale 0-4)

<table>
<thead>
<tr>
<th>Health (acute effects)</th>
<th>Flammability</th>
<th>Physical Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

CAS# Description:

58-71-9 5-Thia-1-sabicyclo(4.2.0)oct-2-ene-2-carboxylic acid, 3-(hydroxymethyl)-8-oxo-7-(2-(2-thienyl)acetamido)-, acetate, monosodium salt

EC number: 200-394-6

4 First-aid measures

Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.
5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Sulfur oxides (SOx)
Sodium oxide
Nitrogen oxides (NOx)

Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.

Methods and material for containment and cleaning up:
Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation.

Prevention of secondary hazards: No special measures required.

Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling
Precautions for safe handling
Keep container tightly sealed. Ensure good ventilation at the workplace.

Information about protection against explosions and fires: No information known.

Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles: Refrigerate
Information about storage in one common storage facility:
Protect from heat.
Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed.
Refrigerate
Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: No data

Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.

Penetration time of glove material (in minutes) Not determined

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties
General information
Appearance:
Form: Powder
Color: White to off-white
Odor: Odorless
Odor threshold: Not determined.

(Contd. of page 3)
### Product name: Cephalothin sodium salt

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH-value</td>
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<tr>
<td>Change in condition</td>
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<td>Melting point/Melting range</td>
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<tr>
<td>Boiling point/Boiling range</td>
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<td>Sublimation temperature / start</td>
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<tr>
<td>Flammability (solid, gaseous)</td>
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<tr>
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<tr>
<td>Decomposition temperature</td>
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<td>Upper</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available</td>
</tr>
</tbody>
</table>

### 10 Stability and reactivity

**Reactivity** No information known.

**Chemical stability** Stable under recommended storage conditions.

**Thermal decomposition / conditions to be avoided** Decomposition will not occur if used and stored according to specifications.

**Possibility of hazardous reactions** Reacts with strong oxidizing agents

**Conditions to avoid** No further relevant information available.

**Incompatible materials**: Oxidizing agents, heat.

**Hazardous decomposition products**: Carbon monoxide and carbon dioxide, sulfur oxides (SOx), sodium oxide, nitrogen oxides.

### 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity**: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.

**LD/LC50 values that are relevant for classification**

**Oral (LD50)** $>$ 10000 mg/kg (rat)

**Skin irritation or corrosion**: May cause irritation.

**Eye irritation or corrosion**: May cause irritation.

**Sensitization**: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**May cause an allergic skin reaction.**

**Germ cell mutagenicity**: No effects known.

**Carcinogenicity**: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**Reproductive toxicity**: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

**Specific target organ system toxicity - repeated exposure**: No effects known.

**Specific target organ system toxicity - single exposure**: No effects known.

**Aspiration hazard**: No effects known.

**Subacute to chronic toxicity**: No effects known.

**Additional toxicological information**: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

### 12 Ecological information

**Toxicity** No further relevant information available.

**Aquatic toxicity**: No further relevant information available.

**Persistence and degradability**: No further relevant information available.

**Bioaccumulative potential**: No further relevant information available.

**Mobility in soil**: No further relevant information available.

**Additional ecological information**

**General notes**

Do not allow material to be released to the environment without proper governmental permits.

Avoid transfer into the environment.

**Results of PBT and vPvB assessment**

**PBT**: Not applicable.

**vPvB**: Not applicable.

**Other adverse effects**: No further relevant information available.

### 13 Disposal considerations

**Waste treatment methods**

**Recommendation**: Consult state, local or national regulations to ensure proper disposal.

**Uncleaned packagings**:

**Recommendation**: Disposal must be made according to official regulations.

### 14 Transport information

**UN-Number**

DOT, ADN, IMDG, IATA

Not applicable

(Contd. on page 4)
**Product name:** Cephalothin sodium salt

### 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**GHS label elements** The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

**Hazard pictograms**

GHS08

**Signal word** Danger

**Hazard statements**

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

**Precautionary statements**

P284 In case of inadequate ventilation wear respiratory protection.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/…

P363 Wash contaminated clothing before reuse.

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**National regulations**

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

This product is not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

**SARA Section 313 (specific toxic chemical listings)** Substance is not listed.

**California Proposition 65**

Prop 65 - Chemicals known to cause cancer Substance is not listed.

Prop 65 - Developmental toxicity Substance is not listed.

Prop 65 - Developmental toxicity, female Substance is not listed.

Prop 65 - Developmental toxicity, male Substance is not listed.

**Information about limitation of use:** For use only by technically qualified individuals.

**Other regulations, limitations and prohibitive regulations**

**Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.** Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

**Annex XIV of the REACH Regulations (requiring Authorisation for use)** Substance is not listed.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing SDS:** Global Marketing Department

**Date of preparation / last revision** 11/23/2015 / -

**Abbreviations and acronyms:**

ADR: Accrédité aux nationaux de transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

DOT: US Department of Transportation

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: Very Persistent and Very Bioaccumulative

ACGIH: American Conference of Governmental Industrial Hygienists (USA)

OSHA: Occupational Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health (USA)

IARC: International Agency for Research on Cancer

EPA: Environmental Protection Agency (USA)