

1 Identification

- Product Identifier
- Trade name: Ampicillin, lyophilized
- Catalog or product number: 1660407, 1660407EDU
- CAS Number: 69-52-3
- EC number: 200-708-1
- Application of the substance / the mixture Laboratory chemicals
- Details of the supplier or the safety data sheet
- Manufacturer/Supplier: Bio-Rad Laboratories, Life Science Group 2000 Alfred Nobel Drive Hercules, California 94547
- Information department: lsg_techserv_us@bio-rad.com (510)741-1000
- Emergency telephone number: 1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT. 510-741-1000

2 Hazard(s) Identification

- Classification of the substance or mixture
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.
- STOT SE 3 H335 May cause respiratory irritation.
- Label elements
- Hazard pictograms The substance is classified and labeled according to the Globally Harmonized System (GHS).
- GHS07

- Signal word Warning
- Hazard-determining components of labeling: sodium [2S-[alpha,Salpha,6B(S'')]-6-(aminophenylacetamido)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate
- Hazard statements
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- Precautionary statements
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves / eye protection / face protection.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P362 Take off contaminated clothing.

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- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- Emergency overview:
- Routes of exposure: Inhalation
- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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3 Composition information on ingredients

- Chemical characterization: Substances
- CAS No. Description: 69-52-3 sodium [2S-[alpha,Salpha,6B(S'')]-6-(aminophenylacetamido)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate
- Identification number(s): EC number: 200-708-1
- Additional information: For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

- Description of first aid measures
- General information Immediately remove any clothing soiled by the product.
- After Inhalation Supply fresh air; consult doctor in case of complaints.
- After skin contact
- Immediately wash with water.
- After eye contact Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing Rinse mouth with water. Seek medical attention and appropriate follow-up.
- Information for doctor
- Most important symptoms and effects, both acute and delayed Breathing difficulty
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Substance extinguishing agents Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.

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- 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.
- Protective Action Criteria for Chemicals

PAC-1: Substance is not listed.

PAC-2: Substance is not listed.

PAC-3: Substance is not listed.

7 Handling and storage

- Handling**
- Precautions for safe handling
- No special measures required.
- Ensure good ventilation/ventilation at the workplace.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage
- Requirements to be met by storerooms and receptacles: According to product specification
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment
- General protective and hygienic measures
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes.
- Breathing equipment:
- In case of brief exposure or low pollution, use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- Protection of hands: Protective gloves.
- Material of gloves Synthetic gloves

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- Penetration time of glove material
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection:
- Safety glasses
- Tightly sealed goggles.

9 Physical and chemical properties

Information on basic physical and chemical properties	
General information	
Appearance:	Crystalline
Form:	Light yellow
Color:	Odorless
Odor:	Not determined.
Odor threshold:	
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	240 °C
Boiling point/Boiling range:	undetermined
Flash point:	Not applicable
Flammability (solid, gaseous)	Product is not flammable.
Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not applicable.
Density:	Not determined
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
Solids content:	100,0 %
Other information	No further relevant information available.

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10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability:
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
 - on the skin: Irritant to skin and mucous membranes.
 - on the eye: Irritant effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
- Carcinogenic categories
- IARC (International Agency for Research on Cancer):
 - Substance is not listed.
- NTP (National Toxicology Program):
 - Substance is not listed.
- OSHA-Ca (Occupational Safety & Health Administration):
 - Substance is not listed.
- Target organs: Eye.

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water.
- Results of PBT and vPvB assessment:
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

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13 Disposal considerations

- Waste treatment methods
- Recommendation:
 - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
 - Dispose of waste in accordance to applicable national, regional, or local regulations.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

UN-Number	Void
DOT, ADR, IMDG, IATA	Void
UN proper shipping name	Void
DOT, ADR, IMDG, IATA	Void
Transport hazard (class(es))	Void
DOT, ADR, IMDG, IATA	Void
Class	Void
Packing group	Void
DOT, ADR, IMDG, IATA	Void
Environmental hazards:	No
Marine pollutant:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	Void

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act of 1986 - USA):
 - Section 302/304 (40CFR355.30 / 40CFR355.40):
 - Substance not listed.
- Section 313 (40CFR372.65):
 - Substance is not listed.
- TSCA (Toxic Substances Control Act):
 - Substance is not listed.
- California Proposition 65:
 - Substance is not listed.

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· Chemicals known to cause cancer:
Substance is not listed.
· Developmental Toxicity
Substance is not listed.
· Carcinogenic categories
· EPA (Environmental Protection Agency)
Substance is not listed.
· TLV (Threshold Limit Value established by ACGIH)
Substance is not listed.
· MAK (German Maximum Workplace Concentration)
Substance is not listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health)
Substance is not listed.
· National regulations
· Water hazard class: Generally not hazardous for water.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environmental Health and Safety.

· Contact: Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547. 1(510) 741-1000

· Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547. 1(510) 794-7000

· Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- DOT: US Department of Transportation
- ATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EN125183: European Inventory of Existing Commercial Chemical Substances
- CAH: Chemical Abstracts Service (division of the American Chemical Society)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety & Health
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- REL: Permissible Exposure Limit
- FEEL: Recommended Exposure Limit
- SKIN Irrit. 2: Skin Irritation - Category 2
- Eye Irrit. 2A: Serious eye irritation - Category 2A
- STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

* Data compared to the previous version altered.