

SAFETY DATA SHEET (SDS)



Product Name: Penicillin-Streptomycin Solution (100X)

Product Number: MIR 5960

Revision Date: JAN 03 2017

Print Date: DEC 12 2018

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1. PRODUCT AND COMPANY IDENTIFICATION

1.1. **Product Name:** Penicillin-Streptomycin Solution

1.2. **Product Number:** MIR 5960

1.3. **Identified Product Use:** For research use only

1.4. **Supplier Details:**

1.4.1. **Company:** Mirus Bio LLC, 545 Science Drive, Madison, WI 53711, USA

1.4.2. **Telephone:** 888.530.0801 (Toll Free within the U.S.) or +1.608.441.2852

1.4.3. **Fax:** +1.608.441.2849

1.4.4. **Emergency Phone No.:** US and Canada: 1.800.633.8253; International: +1.801.629.0667

1.5. **Precautionary Labeling:** The components of Penicillin-Streptomycin Solution (< 4% by weight) are potentially harmful, although the chemical, physical, and toxicological properties have not been thoroughly investigated by Mirus Bio LLC. Handle with care, and practice safe laboratory techniques.

2. HAZARDS IDENTIFICATION

2.1. **Classification of the substance or mixture:**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Respiratory sensitization (Category 1), H334

Skin sensitization (Category 1), H317

Reproductive toxicity (Category 2), H361

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. **GHS label elements, including precautionary statements:**

Pictogram



Signal word

Danger

Hazard statement(s)

H317

May cause an allergic skin reaction.

H334

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

H361

Suspected of damaging fertility or the unborn child.

Precautionary statement(s)

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P263

Avoid contact during pregnancy/ while nursing.

P272

Contaminated work clothing should not be allowed out of the workplace.

P280

Wear protective gloves.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P304 + P341

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

P308 + P313

IF exposed or concerned: Get medical advice/ attention.

P321

Specific treatment (see supplemental first aid instructions on this label).

P333 + P313
P342 + P311

If skin irritation or rash occurs: Get medical advice/ attention.
If experiencing respiratory symptoms, call a POISON CENTER or doctor/
physician.

P363
P405
P501

Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

Sensitising components:

Sodium [2S-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate

May produce an allergic reaction.

2.3. Other Hazards which do not result in the classification or are not covered by GHS:

Possible sensitizer.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical Name	CAS-No	EINECS-No	Common Name(s)	Weight %
Sodium [2S-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate	69-57-8	200-710-2	Penicillin	<2%
Streptomycin sulfate	3810-74-0	223-286-0	n/a	<2%

Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance: None

4. FIRST AID MEASURES

4.1. Description of first aid measures:

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms/effects, acute and delayed

See sections 2 and 11 (hazard and toxicological information) for the most important symptoms and effects.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

No data available

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Suitable Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

5.2. Specific hazards arising from the substance or mixture

Carbon, nitrogen, sodium and sulfur oxides

5.3. Special protective equipment and precautions for firefighters

Wear self-contained breathing apparatus for firefighting if necessary

5.4. Further information: None

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection, refer to section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4. References to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters e.g. occupational exposure limit values or biological limit values.

Contains no substances with occupational exposure limit values.

8.2. Appropriate engineering controls.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures, such as personal protective equipment.

Personal protective equipment:	Avoid all unnecessary exposure.
Materials for protective clothing:	Wear appropriate protective gloves to prevent skin exposure
Hand protection:	Always wear gloves.
Eye protection:	Tightly fitting safety glasses with side shields.
Skin and body protection:	Protective clothing.
Respiratory protection:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Other information:	Do not allow product to enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1. **Appearance (physical state, color etc.):** Form: liquid
Color: colorless
- 9.2. **Odor:** No data available
- 9.3. **Odor threshold:** No data available
- 9.4. **pH:** 6.0-6.7
- 9.5. **Melting point/freezing point:** No data available
- 9.6. **Initial boiling point and boiling range:** No data available
- 9.7. **Flash point:** No data available
- 9.8. **Evaporation rate:** No data available
- 9.9. **Flammability (solid, gas):** No data available
- 9.10. **Upper/lower flammability or explosive limits:** No data available
- 9.11. **Vapor pressure:** No data available
- 9.12. **Vapor density:** No data available
- 9.13. **Relative density:** No data available
- 9.14. **Solubility(ies):** No data available
- 9.15. **Partition coefficient: n-octanol/water** No data available
- 9.16. **Auto-ignition temperature:** No data available
- 9.17. **Decomposition temperature:** No data available
- 9.18. **Viscosity:** No data available

10. STABILITY AND REACTIVITY

- 10.1. **Reactivity:** No data available
- 10.2. **Chemical stability:** Stable under recommended storage conditions.
- 10.3. **Possibility of hazardous reactions:** No data available
- 10.4. **Conditions to avoid (e.g. static discharge, shock or vibration):** No data available
- 10.5. **Incompatible materials:** Strong oxidizing agents
- 10.6. **Hazardous decomposition products:** Carbon, nitrogen, and sulfur oxides formed under fire conditions. In the event of a fire: see section 5.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Acute toxicity: No data available
Skin corrosion/irritation: No data available
Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available
Specific target organ toxicity - single exposure: No data available
Specific target organ toxicity - repeated exposure: No data available
Aspiration hazard: No data available

12. ECOLOGICAL INFORMATION

- 12.1. **Ecotoxicity (aquatic and terrestrial, where available):** No data available
- 12.2. **Persistence and degradability:** No data available
- 12.3. **Bioaccumulative potential:** No data available
- 12.4. **Mobility in the soil:** No data available
- 12.5. **Other adverse effects:** No data available

13. DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Recommendations:

Remove waste in accordance with local and/or national regulations. Hazardous waste should not be mixed with other waste or different types of hazardous waste if mixing leads to pollution or increased difficulty in properly disposing of the waste. All entities that store, transport or handle hazardous waste should take the necessary measures to prevent risks of pollution or damage to people or animals.

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORT INFORMATION

- 14.1. **UN number:** Not classified as a hazardous good
- 14.2. **UN proper shipping name:** Not classified as a hazardous good
- 14.3. **Transport hazard class(es):** Not classified as a hazardous good
- 14.4. **Packing group, if applicable:** Not classified as a hazardous good

Covers specifications required for DOT(US), IMDG, and IATA.

15. REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations specific for the product in question:

SARA 302/313 Components

SARA 302: This material is not subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components

Sodium [2S-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate (CAS-No. 69-57-8)

Streptomycin sulfate (CAS-No. 3810-74-0)

Pennsylvania Right To Know Components

Sodium [2S-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-(phenylacetamido)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate (CAS-No. 69-57-8)

Streptomycin sulfate (CAS-No. 3810-74-0)

California Prop. 65 Components: WARNING: This product contains a chemical known to the

State of California to cause birth defects or other reproductive harm – Streptomycin sulfate (CAS-No. 3810-74-0)

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361	Suspected of damaging fertility or the unborn child
Repr.	Reproductive toxicity
Resp. Sens.	Respiratory sensitization
Skin Sens.	Skin sensitization

HMIS Rating

Health hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical Hazard 0

NFPA Rating

Health hazard: 2
Fire Hazard: 0
Reactivity Hazard: 0

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