1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: Neomycin Sulfate
Product Number: PHR1491
Brand: Sigma-Aldrich
CAS-No.: 1405-10-3

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO  63103
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone #: (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Respiratory sensitisation (Category 1), H334
Skin sensitisation (Category 1), H317

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.

Precautionary statement(s)
P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves.
P285: In case of inadequate ventilation wear respiratory protection.
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.
P321: Specific treatment (see supplemental first aid instructions on this label).
P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Molecular Weight</th>
<th>908.88 g/mol</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.</td>
<td>1405-10-3</td>
</tr>
<tr>
<td>EC-No.</td>
<td>215-773-1</td>
</tr>
</tbody>
</table>

Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neomycin trisulfate salt hydrate</td>
<td>Resp. Sens. 1; Skin Sens. 1; H317, H334</td>
<td>90 - 100%</td>
</tr>
</tbody>
</table>

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

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
Flush eyes with water as a precaution.

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

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
no data available

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference 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 formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. 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.
Recommended storage temperature: -20 °C

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

   Eye/face protection
   Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

   Skin protection
   Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

   Body Protection
   Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

   Respiratory protection
   For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

   Control of environmental exposure
   Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
a) Appearance Form: solid
b) Odour no data available
c) Odour Threshold  no data available

d) pH  no data available

e) Melting point/freezing point  no data available

f) Initial boiling point and boiling range  no data available

g) Flash point  no data available

h) Evaporation rate  no data available

i) Flammability (solid, gas)  no data available

j) Upper/lower flammability or explosive limits  no data available

k) Vapour pressure  no data available

l) Vapour density  no data available

m) Relative density  no data available

n) Water solubility  50 g/l

o) Partition coefficient: n-octanol/water  no data available

p) Auto-ignition temperature  no data available

q) Decomposition temperature  no data available

r) Viscosity  no data available

s) Explosive properties  no data available

t) Oxidizing properties  no data available

9.2 **Other safety information**  
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**  
no data available

10.5 **Incompatible materials**  
Strong oxidizing agents

10.6 **Hazardous decomposition products**  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides
In the event of fire: see section 5
11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - mouse - 8,000 mg/kg
Inhalation: no data available
Dermal: no data available
LD50 Subcutaneous - rat - 200 mg/kg
LD50 Intracerebral - mouse - 32 mg/kg
LD50 Intramuscular - mouse - 142 mg/kg
LD50 Intraperitoneal - mouse - 305 mg/kg
LD50 Intravenous - mouse - 174 mg/kg
LD50 Subcutaneous - mouse - 190 mg/kg
LD50 Intramuscular - guinea pig - 250 mg/kg

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

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

Additional Information
RTECS: Not available
Aminoglycosides are associated with significant nephrotoxicity and/or ototoxicity.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
no data available
12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
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.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
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

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

Pennsylvania Right To Know Components

Neomycin trisulfate salt hydrate
CAS-No. 1405-10-3
Revision Date

New Jersey Right To Know Components

Neomycin trisulfate salt hydrate
CAS-No. 1405-10-3
Revision Date

California Prop. 65 Components
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Neomycin trisulfate salt hydrate
CAS-No. 1405-10-3
Revision Date 2007-09-28
16. OTHER INFORMATION

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

H317       May cause an allergic skin reaction.
H334       May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Resp. Sens.    Respiratory sensitisation
Skin Sens.    Skin sensitisation

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

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

Further information
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Preparation Information
Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

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