Section 1
Product Description

Product Name: Mannitol Salt Agar, Dehydrated
Recommended Use: Science education applications
Synonyms: MSA
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm ET Monday-Friday)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2
Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;
Not a dangerous substance according to GHS classification criteria. No known OSHA hazards.
GHS Classification:

Section 3
Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>67.5</td>
</tr>
<tr>
<td>Agar</td>
<td>9002-18-0</td>
<td>13.5</td>
</tr>
<tr>
<td>D-Mannitol</td>
<td>69-65-8</td>
<td>9</td>
</tr>
<tr>
<td>Peptic Digest of Animal Tissue</td>
<td>N/A</td>
<td>4.5</td>
</tr>
<tr>
<td>Pancreatic Digest of Casein</td>
<td>N/A</td>
<td>4.5</td>
</tr>
<tr>
<td>Beef Extract</td>
<td>N/A</td>
<td>0.9</td>
</tr>
<tr>
<td>Phenol Red, Sodium Salt</td>
<td>34487-61-1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Section 4
First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: After contact with skin, wash immediately with plenty of water.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5
Firefighting Procedures

Extinguishing Media: Use media suitable to extinguish surrounding fire.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Avoid Dusting. May become explosive when dispersed in air.
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Sodium Oxides, Sulfur Oxides, Nitrogen oxides

Section 6
Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS.
No adverse health affects expected from the clean-up of spilled material. No adverse health affects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS. Avoid the generation of dusts during clean-up. Ventilate the contaminated area.
Section 7 Handling and Storage

Handling: Avoid creating and inhaling dust.
Storage: Keep container tightly closed in a cool, well-ventilated place.
Storage Code: Green - general chemical storage

Section 8 Protection Information

Control Parameters
Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE):
Respiratory Protection: No respiratory protection required under normal conditions of use.
Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Natural rubber, Neoprene, PVC or equivalent.

Section 9 Physical Data

Formula: See Section 3
Molecular Weight: N/A
Appearance: Off-white to tan
Odor: None
Odor Threshold: No data available
pH: No data available
Melting Point: No data available 801 C
Boiling Point: 1461 C
Flash Point: No data available
Flammable Limits in Air: N/A

Section 10 Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: None known.
Incompatible Materials: Bromine Trifluoride, Lithium, Strong oxidizing agents
Hazardous Decomposition Products: Nitrogen oxides, Sulfur Oxides, Sodium Oxides, Carbon dioxide, Carbon monoxide
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry: Inhalation and ingestion.
Symptoms (Acute): Respiratory disorders
Delayed Effects: No data available

Acute Toxicity:
Chemical Name | CAS Number | Oral LD50 | Dermal LD50 | Inhalation LC50
--- | --- | --- | --- | ---
Mannitol Salt Agar, Dehydrated
Sodium Chloride 7647-14-5 Oral LD50 Mouse 4000 mg/kg Oral LD50 Rat 3000 mg/kg

Agar 9002-18-0 Oral LD50 Mouse 16000 mg/kg

D-Mannitol 69-65-8 Oral LD50 Mouse 22000 mg/kg

Phenol Red, Sodium Salt 34487-61-1

Carcinogenicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Phenol Red, Sodium Salt</td>
<td>34487-61-1</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Chronic Effects:
- Mutagenicity: No evidence of a mutagenic effect.
- Teratogenicity: No evidence of a teratogenic effect (birth defect).
- Sensitization: No evidence of a sensitization effect.
- Reproductive: No evidence of negative reproductive effects.

Toxicological Data:
- Acute: See Section 2
- Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12  Ecological Data

Overview: This material is not expected to be harmful to the ecology.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Eco Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>96 HR LC50 LEPOMIS MACROCHIRUS 12946 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 1000 MG/L</td>
</tr>
</tbody>
</table>

Section 13  Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Waste Disposal Code(s): Not Determined

Section 14  Transport Information

Ground - DOT Proper Shipping Name: Not Regulated for Transport

Air - IATA Proper Shipping Name: Not regulated for air transport by IATA.
Section 15  Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>§ 313 Name</th>
<th>§ 304 RQ</th>
<th>CERCLA RQ</th>
<th>§ 302 TPQ</th>
<th>CAA 112(2) TQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Phenol Red, Sodium Salt</td>
<td>34487-61-1</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Section 16  Additional Information


The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service Number</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation, and Liability Act</td>
</tr>
<tr>
<td>DOT</td>
<td>U.S. Department of Transportation</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>N/A</td>
<td>Not Available</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per million</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>IDLH</td>
<td>Immediately dangerous to life and health</td>
</tr>
</tbody>
</table>