SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier
   - Product Name: **Nutrient Agar**
   - Product Part Number: **7145**

1.2 Relevant identified uses of the substance or mixture and uses advised against
   - Use of the substance/preparation: For the cultivation of a wide variety of microorganisms. Conforms to FDA/BAM formulation.
   - Use advised against: No information available

1.3 Details of the supplier of the safety data sheet
   - Name of Manufacturer: Acumedia Manufacturers, Inc.
   - Address of Manufacturer: 740 East Shiawassee Lansing, Michigan 48912 USA
   - Telephone: 517/372-9200
   - Email: Foodsafety@neogen.com

1.4 Emergency telephone number
   - Emergency Telephone: Chemtrec: (800) 424-9300
     Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture
   - Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]
     - Not classified as hazardous for supply
     - Not classified as hazardous for supply
   - Additional information: For full text of R-phrases and Hazard- and EU Hazard-statements: see section 16

2.2 Label elements
   - Signal Word: None
   - Symbols: None
   - Hazard phrases
     None
   - Precautionary Phrases
     Keep container tightly closed.
     Do not breathe dust
     Do not get in eyes, on skin, or on clothing.

2.3 Other hazards
   - Mildly irritating to skin and eyes
   - Mildly irritating to respiratory system

SECTION 3 Composition/information on ingredients

3.1 Substances
3.2 Mixtures
SECTION 4 First aid measures

4.1 Description of first aid measures
- Contact with skin
  Remove contaminated clothing
  Wash affected area with plenty of soap and water
  If skin irritation or rash occurs: Get medical advice/attention.
  Contaminated clothing should be laundered before reuse
- Contact with eyes
  If substance has gotten into eyes, immediately wash out with plenty of water for at least 15 minutes
  Irrigate eyes thoroughly while lifting eyelids
  Seek medical advice if necessary
- Ingestion
  Rinse mouth with water (do not swallow)
  Never make an unconscious person vomit or drink fluids
  If medical advice is needed, have product container or label at hand.
- Inhalation
  If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
  Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed
- May cause irritation

4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically

SECTION 5 Fire-fighting measures

5.1 Extinguishing media
- In case of fire: use foam, carbon dioxide or dry agent for extinction

5.2 Special hazards arising from the substance or mixture
- Smoke from fires is toxic. Take precautions to protect personnel from exposure
- Decomposition products may include carbon oxides
- May form explosive dust/air mixtures
- See Section 10

5.3 Advice for firefighters
- Keep container(s) exposed to fire cool, by spraying with water
- Wear chemical protection suit and positive-pressure breathing apparatus
- Wear protective clothing as per section 8

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources
- Use non-sparking hand tools
SECTION 6 Accidental release measures (continued)

- Avoid raising dust
- Remove contaminated clothing
- Wear protective clothing as per section 8
- Wash thoroughly after dealing with spillage

6.2 Environmental Precautions
- Do not allow to enter public sewers and watercourses
- Avoid scattering in the environment

6.3 Methods and material for containment and cleaning up
- Absorb spillage in inert material and shovel up
- Place in sealable container
- Seal containers and label them
- Seek expert advice for removal and disposal of all contaminated materials and wastes
- Ventilate the area and wash spill site after material pick-up is complete

6.4 Reference to other sections
- See Section 7

SECTION 7 Handling and storage

7.1 Precautions for safe handling
- Do not breathe dust
- Avoid contact with skin and eyes
- Do not eat, drink or smoke when using this product.
- Ensure adequate ventilation
- Eyewash bottles should be available
- Wash hands thoroughly after using this substance

7.2 Conditions for safe storage, including any incompatibilities
- Store at temperatures not exceeding 30°C/86°F. Keep cool.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.
- Keep away from oxidizing substances
- Keep away from acid

7.3 Specific end use(s)
- For the cultivation of a wide variety of microorganisms. Conforms to FDA/BAM formulation.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters
- There are no recommended or established controls for this product

8.2 Exposure controls
- Eyewash bottles should be available
- Engineering controls should be provided to prevent the need for ventilation
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask, N95 (US) or type FFP1 (EN143) dust masks.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for NIOSH (US) or EN 166.
SECTION 8 Exposure controls/personal protection (continued)

- Wear suitable protective clothing

  Gloves  Safety Glasses  Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Homogenous, free-flowing powder, Beige
- Odor: No information available
- pH: Not applicable
- Melting point/Range: No information available
- Boiling Point/Range: Not determined
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: Completely soluble in water
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: No information available

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid

- Avoid contact with moisture
- Keep away from heat and sources of ignition

10.5 Incompatible materials

- Incompatible with oxidizing substances

10.6 Hazardous Decomposition Products

- Decomposition products may include carbon oxides
SECTION 11 Toxicological information

11.1 Information on toxicological effects
- No experimental data available
- Contact with skin
  May cause redness and irritation
- Contact with eyes
  May cause redness and irritation
- Ingestion
  May cause irritation of the throat
- Inhalation
  May cause coughing
- Carcinogenicity
  No evidence of carcinogenic effects
- Mutagenicity
  No evidence of mutagenic effects
- Teratogenicity
  No information available

SECTION 12 Ecological information

12.1 Toxicity
- No information available
12.2 Persistence and degradability
- No information available
12.3 Bioaccumulation Potential
- No information available
12.4 Mobility in soil
- No information available
12.5 Results of PBT and vPvB assessment
- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available
12.6 Other Adverse Effects
- To the best of our knowledge, the properties of this material have not been fully evaluated
- On available data, substance is not harmful to the environment

SECTION 13 Disposal considerations

13.1 Waste treatment methods
- Disposal should be in accordance with local, state or national legislation
- Do not discharge into drains or the environment, dispose to an authorized waste collection point
- Do not reuse empty containers without commercial cleaning or reconditioning
- Refer to manufacturer/supplier for information on recovery/recycling
13.2 Classification (REACH)
- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.
SECTION 14 Transport information

14.1 UN Number
Not classified as hazardous for transport

14.2 UN Proper Shipping Name
- Not applicable

14.3 Transport hazard class(es)
- Not applicable

14.4 Packing group
- Not applicable

14.5 Environmental hazards
- Not Classified

14.6 Special precautions for user
- Not Classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code
- Not Classified

14.8 DOT
- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 Road/Rail (ADR/RID)
- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Sea (IMDG)
- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

14.11 Air (ICAO/IATA)
- Proper Shipping Name: Not applicable
- ICAO Un No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe

15.2 Chemical Safety Assessment
- No information available

15.3 United States Regulatory Information
SECTION 15  Regulatory information (continued)

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: The 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
No SARA Hazards

SECTION 16  Other information

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.
Section 1 Chemical Product and Company Information

HOME SCIENCE TOOLS
665 Carbon Street
Billings, MT 59102
800-860-6272
www.homesciencetools.com

Product: IODINE-POTASSIUM IODIDE SOLUTION


Section 2 Hazards Identification

Signal word: WARNING
Pictograms: GHS07 / GHS09

Target organs: Thyroid, kidneys, endocrine system, skin, eyes, reproductive system, central nervous system.

GHS Classification:
Acute toxicity, oral (Category 4)
Acute toxicity, inhalation (Category 4)
Aquatic Acute (Category 1)

GHS Label information: Hazard statement(s):
H312: Harmful in contact with skin.
H332: Harmful if inhaled.
H400: Very toxic to aquatic life.

Precautionary statement(s):
P261: Avoid breathing mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Use protective gloves/protective clothing/eye protection/face protection.
P302/352: IF ON SKIN: Wash with plenty of soap and water.
P304/340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P391: Collect spillage.
P501: Dispose of contents/container to an approved waste disposal plant.

Section 3 Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Nomme Chimique</th>
<th># CAS</th>
<th>%</th>
<th>EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>95.10%</td>
<td>231-791-2</td>
</tr>
<tr>
<td>Potassium iodide</td>
<td>7681-11-0</td>
<td>3.05%</td>
<td>231-659-4</td>
</tr>
<tr>
<td>Iodine</td>
<td>7553-56-2</td>
<td>1.85%</td>
<td>231-442-4</td>
</tr>
</tbody>
</table>

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Harmful if inhaled.

EYE CONTACT: MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: HARMFUL IN CONTACT WITH SKIN. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. Harmful in contact with skin.

Section 5 Fire Fighting Measures

Extinguishing Media: Use any media suitable for extinguishing supporting fire.

General Information: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.
Section 7  Handling & Storage
Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. Keep out of reach of children. Use with adequate ventilation. Wash thoroughly after handling.  Remove and wash clothing before reuse.

Section 8  Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Exposure Limits:</th>
<th>Chemical Name</th>
<th>ACGIH (TLV)</th>
<th>OSHA (PEL)</th>
<th>NIOSH (REL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Iodine CAS # 7553-56-2</td>
<td>TWA: 0.01 ppm (EV) / STEL: 0.1 ppm (V)</td>
<td>STEL: C 0.1 ppm/C 1 mg/m³</td>
<td>STEL: C 0.1 ppm/C 1 mg/m³</td>
</tr>
</tbody>
</table>

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or face shield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9  Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Deep amber liquid.</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic odor.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pH</td>
<td>Data not available.</td>
</tr>
<tr>
<td>Melting / Freezing point</td>
<td>~ 0°C (~ 32°F) [water]</td>
</tr>
<tr>
<td>Boiling point</td>
<td>~ 100°C (212°F) [water]</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not flammable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>(Water = 1): &lt; 1</td>
</tr>
<tr>
<td>Flammability (solid/gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosion limits: Lower / Upper</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure (mm Hg)</td>
<td>14 [water]</td>
</tr>
<tr>
<td>Vapor density (Air = 1):</td>
<td>0.7 [water]</td>
</tr>
<tr>
<td>Relative density (Specific gravity):</td>
<td>1.0 [water]</td>
</tr>
<tr>
<td>Solubility(ies):</td>
<td>Complete in water.</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>(n-octanol / water): Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Data not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Data not available.</td>
</tr>
<tr>
<td>Molecular formula</td>
<td>Mixture</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

Section 10  Stability & Reactivity

- Chemical stability: Stable
- Hazardous polymerization: Will not occur.
- Conditions to avoid: Stable under recommended storage conditions. Excessive temperatures which cause evaporation.
- Incompatibilities with other materials: Metals or unsaturated organic compounds, ammonia solutions or alkaline solutions of ammonia salts. Will form explosive nitrogen iodides when reacted with gaseous ammonia.
- Hazardous decomposition products: Toxic iodide fumes.

Section 11  Toxicological Information

- Acute toxicity: Oral-Rat LD50: 14,000 mg/kg [Iodine CAS # 7553-56-2]
- Skin corrosion/irritation: Data not available
- Serious eye damage/irritation: Data not available
- Respiratory or skin sensitization: Inhalation-3.1 mg/m³ / 24 hour / 13 weeks - continuous [Iodine CAS # 7553-56-2]
- Germ cell mutagenicity: Data not available
- Carcinogenicity: Data not available
- 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: Data not available
- STOT-single exposure: Data not available
- STOT-repeated exposure: Data not available
- Aspiration hazard: Data not available
- Potential health effects:
  - Inhalation: Symptoms include cough, wheezing, and labored breathing. Symptoms may be delayed.
  - Ingestion: Causes abdominal pain, diarrhea, nausea, and vomiting. Ingestion of levels of 2-3 grams of iodine may cause death.
  - Skin: Contact may cause redness and pain.
  - Eyes: Contact causes watering of the eyes, redness and pain.
- Signs and symptoms of exposure: Effects of short-term exposure: Lachrymator. The substance is severely irritating to the eyes and the respiratory tract, and is irritating to the skin. Inhalation of the vapor may cause asthma-like reactions. Inhalation of the vapor may cause lung edema. The effects may be delayed. Effects of long-term exposure: Repeated or prolonged contact may cause skin sensitization in rate cases. Repeated or prolonged inhalation exposure may cause asthma-like syndrome. The substance may have effects on the thyroid. Specific data not available for this mixture. Exercise appropriate procedures to minimize potential hazards.
- Additional information: RTECS #: NN1575000 [Iodine CAS # 7553-56-2]

Section 12  Ecological Information

- Toxicity to fish: Very toxic to aquatic life.
- Toxicity to daphnia and other aquatic invertebrates: No data available
- Toxicity to algae: No data available
- Persistence and degradability: No data available
- Bioaccumulative potential: No data available
- Mobility in soil: No data available
- PBT and vPvB assessment: No data available
- Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13  Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14  Transport Information

- UN/NA number: None assigned
- Shipping name: Not Regulated.
- Hazard class: None assigned
- Packing group: None assigned
- Reportable Quantity: No
- Marine pollutant: No
- Exceptions: No

Section 15  Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>CERCLA (RQ)</th>
<th>RCRA code</th>
<th>DSL</th>
<th>NDSL</th>
<th>WHMIS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iodine</td>
<td>Listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Listed</td>
<td>Not listed</td>
<td>E; D2A</td>
</tr>
<tr>
<td>Potassium Iodide</td>
<td>Listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Listed</td>
<td>Not listed</td>
<td>D2A</td>
</tr>
</tbody>
</table>

Section 16  Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure.

Revision Date: August 20, 2014
Supercedes: September 23, 2013