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

1.1 Product identifier
   - Product Name(s): PALCAM Supplement
   - Product Part Number(s): 7987

1.2 Relevant identified uses of the substance or mixture and uses advised against
   - Use of the substance/preparation: For use with PALCAM Agar or PALCAM Broth as a supplement for the selective and differential enrichment of *Listeria* spp. from foods, dairy and environmental samples.
   - 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: 1 (800) 424-9300
   - Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture
   - Classification (29 CFR 1910.1200)
     - Serious eye damage, Cat. 1, H318. Sensitization, respiratory, Cat. 1, H334, Sensitization, skin, Cat. 1, H317, Hazardous to the aquatic environment, long-term hazard, Cat 2, H411
   - Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]
     - Eye Dam. 1, H318, Resp sens. 1, H334. Skin sens. 1, H317, Aquatic chronic 2, H411
   - Classification (WHMIS 2015 HPR)
     - Serious eye damage, Cat. 1, H318. Sensitization, respiratory, Cat. 1, H334, Sensitization, skin, Cat. 1, H317, Hazardous to the aquatic environment, long-term hazard, Cat 2, H411

   Additional information: For full text of Hazard-statements see Section 16.

2.2 Label elements

   - Signal Word: Danger
   - Symbols: GHS05, GHS08
   - Hazard phrases
     - Causes serious eye damage.
     - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
     - May cause an allergic skin reaction.
     - Toxic to the aquatic environment with long lasting effects.
   - Precautionary Phrases
     - Wear protective gloves/protective clothing/eye protection/face protection.
     - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
     - Immediately call a POISON CENTER or doctor/physician.
     - Avoid breathing dust.
     - Contaminated clothing must not be allowed out of the work place.
     - In case of inadequate ventilation wear respiratory protection.
     - IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
SECTION 2  Hazards identification (continued)

IF ON SKIN: Wash with plenty of soap and water.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Avoid release into the environment.
Collect spillage. Hazardous to the aquatic environment.
Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
- May cause nausea or other gastrointestinal symptoms if swallowed.

SECTION 3  Composition/information on ingredients

3.1 Substances
3.2 Mixtures
This product is a mixture of the substances listed below with the addition of non-hazardous materials

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Concentration</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>H-Statements</th>
<th>Symbols</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acriflavine HCl</td>
<td>1 – 5%</td>
<td>8063-24-9</td>
<td>617-132-5</td>
<td>H302, H318,</td>
<td>GHS05, GHS07,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H410</td>
<td>GHS09,</td>
</tr>
<tr>
<td>Ceftazidime</td>
<td>10 – 20%</td>
<td>72558-82-8</td>
<td>276-715-9</td>
<td>H317, H334</td>
<td>GHS08</td>
</tr>
</tbody>
</table>

SECTION 4  First aid measures

4.1 Description of first aid measures
- General
  In case of doubt, or when symptoms persist, seek medical attention.
- Contact with skin
  May cause an allergic skin reaction.
  Remove contaminated clothing.
  Wash affected area with plenty of soap and water.
  If skin irritation or rash occurs: Get medical advice/attention.
  Contaminated clothing must not be allowed out of the workplace and should be laundered before reuse.
- Contact with eyes
  Causes serious eye damage.
  If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
  Irrigate eyes thoroughly while lifting eyelids.
  Remove contact lenses, if present and easy to do. Continue rinsing.
  Seek medical advice immediately.
- 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
  May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  If breathing is difficult, remove person to fresh air and keep 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
- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

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.
  - 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.

5.4 Hazardous Combustion Products
- May include carbon oxides.

SECTION 6  Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources and use non-sparking tools.
- Avoid raising dust.
- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

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

6.3 Methods and material for containment and cleaning up
- Sweep up and collect for disposal. Avoid raising dust.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections
- See Section 7 for storage. For disposal, see Section 13.

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, smoke, or apply cosmetics 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 8°C/46°F. Keep cool.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.

7.3 Specific end use(s)
- For use with PALCAM Agar or PALCAM Broth as a supplement for the selective and differential enrichment of Listeria spp. from foods, dairy and environmental samples.
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.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask, NIOSH 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 ANSI Z87 or EN 166.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.

Gloves  Safety Glasses  Lab Coat

SECTION 9  Physical and chemical properties

9.1 Information on basic physical and chemical properties
- Appearance: Homogenous, fluffy gold to yellow to orange-yellow dried ‘cake’, crystalline
- Odor: No information available
- pH: No information available
- Melting Point/Range: No information available
- Boiling Point/Range: Not applicable
- Flashpoint: No information available
- Evaporation Rate: Not applicable
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: Soluble
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: Product is solid
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

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.

10.5 Incompatible materials
- None known

10.6 Hazardous Decomposition Products
- Decomposition products may include carbon oxides.
SECTION 11 Toxicological information

11.1 Information on toxicological effects
- No experimental test data available for the mixture
- ATEmix = 2,381 mg/kg (oral)
- Contact with skin
  May cause an allergic skin reaction.
- Contact with eyes
  Causes serious eye damage.
- Ingestion
  Product is not toxic, but may cause nausea or other gastrointestinal symptoms if swallowed. Based on available data, the classification criteria are not met.
- Inhalation
  May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Carcinogenicity
- Mutagenicity
  No evidence of mutagenic effects.
- Teratogenicity
  No evidence of teratogenic effects.

SECTION 12 Ecological information

12.1 Toxicity
- This product is classified as hazardous to the environment under U.S. regulations: toxic to the aquatic environment with long-lasting effects, Cat. 2.

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.

SECTION 13 Disposal considerations

13.1 Waste treatment methods
- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

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
UN 3077

14.2 UN Proper Shipping Name
- Environmentally hazardous substance, solid, n.o.s. (Acriflavine hydrochloride mixture)

14.3 Transport hazard class(es)
- 9

14.4 Packing group
- III

14.5 Environmental hazards
- Aquatic chronic, Cat. 2

14.6 Special precautions for user
- None

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

14.8 Domestic Surface Transport (US DOT)
- Proper Shipping Name: Not classified
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)
- Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Acriflavine hydrochloride mixture)
- ADR UN No.: 3077
- ADR Hazard Class: 9
- ADR Packing Group: III
- Tunnel Code: 3 (E)

14.10 Ocean/Sea (IMO/IMDG)
- Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Acriflavine hydrochloride mixture)
- IMDG UN No.: 3077
- IMDG Hazard Class: 9
- IMDG Packing Group: III

14.11 Air (ICAO/IATA)
- Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Acriflavine hydrochloride mixture)
- ICAO UN No.: 3077
- ICAO Hazard Class: 9
- ICAO Packing Group: III

SECTION 15  Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

15.2 Chemical Safety Assessment
- No information available

15.3 United States Regulatory Information
SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SECTION 15   Regulatory information (continued)

SARA 313 Components
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
Acute Health Hazard      Yes
Chronic Health Hazard    Yes
Fire Hazard               No
Sudden Release of Pressure Hazard No
Reactive Hazard           No

Toxic Substance Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

15.4 Canadian Regulatory Information

- Inventory Status
  Domestic Substances List (DSL)    Listed
  Non-Domestic Substances List (NDSL) Not listed

SECTION 16  Other information

Date of Preparation:  July 2016
Revision:  Rev. 0
Replaces: New issue

Text not given with phrase codes where they are used elsewhere in this safety data sheet:  
H302: Harmful if swallowed.  H318: Causes serious eye damage.  H410: Very toxic to aquatic life with long-lasting effects.  H317: May cause an allergic skin reaction.  H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  H411: Toxic to aquatic life with long-lasting effects.

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.