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

1.1 Product identifier
- Product Name: LESS Medium
- Product Part Number: 9790, 9792E

1.2 Relevant identified uses of the substance or mixture and uses advised against
- Use of the substance/preparation: For the selective enrichment of Listeria spp.
- 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)
- Skin irritation, Cat. 2, H315, Eye irritation, Cat. 2A, H319, Specific target organ toxicity (single exposure), Cat. 3, H335

  Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]
- Skin irrit. 2, H315, Eye irrit. 2, H319, STOT – SE 3, H335

  Classification (WHMIS 2015 HPR)
- Skin irritation, Cat. 2, H315, Eye irritation, Cat. 2A, H319, Specific target organ toxicity (single exposure), Cat. 3, H335

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

2.2 Label elements

- Signal Word: Warning
- Symbols: GHS07
- Hazard phrases
  Causes skin irritation.
  Causes serious eye irritation.
  May cause respiratory irritation.
- Precautionary Phrases
  Wash hands thoroughly after handling.
  Avoid breathing dust/fume/gas/mist/vapors/spray.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Use only outdoors or in a well-ventilated area.
  IF ON SKIN: Wash with plenty of soap and water.
  IF SKIN irritation occurs: Get medical advice/attention.
  Take off contaminated clothing and wash it before reuse.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
  If eye irritation persists: Get medical advice/attention.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  Call a POISON CENTER or doctor/physician if you feel unwell.
  Store in a well-ventilated place. Keep container tightly closed.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/international regulations.
SECTION 2  Hazards identification (continued)

2.3 Other hazards
- May be mildly irritating to mucous membranes.

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>MOPS, Free Acid</td>
<td>20 – 25%</td>
<td>1132-61-2</td>
<td>214-478-5</td>
<td>H315, H319, H335</td>
<td>GHS07</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
  Causes skin irritation.
  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
  Causes serious eye irritation.
  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
  May cause respiratory irritation.
  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.
- Decomposition products may include carbon oxides, chlorine, phosphorous oxides.
- 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.
- 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.
- 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, 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.

7.3 Specific end use(s)
- For the selective enrichment of Listeria spp.

SECTION 8  Exposure controls/personal protection

8.1 Control parameters
- This product contains no substances >1% with occupational exposure limit values.

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 respiratory protection, 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.
SECTION 9  Physical and chemical properties

9.1 Information on basic physical and chemical properties
- Appearance: Homogenous, free-flowing powder, tan
- 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 homogenous free-flowing powder
- 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.
- Keep away from heat and sources of ignition.

10.5 Incompatible materials
- None known

10.6 Hazardous Decomposition Products
- Decomposition products may include carbon oxides, chlorine, phosphorous oxides.

SECTION 11  Toxicological information

11.1 Information on toxicological effects
- No experimental test data available for the mixture
- ATEmix = 1,098 mg/kg (oral)
- Contact with skin
  Causes skin irritation.
- Contact with eyes
  Causes serious eye irritation.
- Ingestion
  May cause irritation of the throat and/or nausea in sensitive individuals.
- Inhalation
  May cause respiratory irritation.
- Carcinogenicity
  Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
  Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
  Not listed in OSHA standard 1910.1003 Carcinogens.
- Mutagenicity
  No evidence of mutagenic effects.
SECTION 11  Toxicological information (continued)

- Teratogenicity
  No evidence of teratogenic effects

SECTION 12  Ecological information

12.1 Toxicity

**MOPS, sodium salt**
Toxicity to daphnia and other aquatic invertebrates
EC50 – Daphnia magna (Water flea) >100mg/L-24h
LC50 – Daphnia magna (Water flea) >100 mg/L-48h

Toxicity to algae
EC50 – Desmodesmus subspicatus (Green Algae) >100 mg/L-72h
(OECD Test Guideline 201)
NOEC - Desmodesmus subspicatus (Green Algae) >100 mg/L-72h
(OECD Test Guideline 201)

**MOPS, free acid**
Toxicity to daphnia and other aquatic invertebrates
EC50 – Daphnia magna (Water flea) >100 mg/L-48h

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, 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
- 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
SECTION 14  Transport information (continued)

14.5 Environmental hazards
- Not classified

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 applicable

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

14.10 Ocean/Sea (IMO/IMDG)
- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing 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
- 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.

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.
SECTION 15 Regulatory information (continued)

- California Prop 65
  WARNING: This product contains a chemical known to the State of California to cause cancer: Nalidixic acid, CAS No. 389-08-2
  WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm: Cycloheximide, CAS No. 66-81-9

- 15.4 Canadian Regulatory Information
  - Inventory Status
    Domestic Substances List (DSL) Listed
    Non-Domestic Substances List (NDSL) Listed

SECTION 16 Other information

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

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.

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.