



SAFETY DATA SHEET

Section 1: Identification

- 1.1. Product identifier
 - 1.1.1. Product Name: Demi-Fraser Broth Base
 - 1.1.2. Product Number: M401
- 1.2. Recommended use of product
 - 1.2.1. Culture media used for the selective enrichment of *Listeria monocytogenes*.
- 1.3. Manufacturer: Millennium LifeSciences, Inc.
 - 1.3.1. Address: CultureMediaConcepts®
970 E. Orangethorpe Ave. Unit A
Anaheim, CA 92801 USA
 - 1.3.2. Phone: 1.714.773.1726
 - 1.3.3. Emergency phone: 1.714.773.1726
 - 1.3.4. Email: info@mlscmc.com

Section 2: Hazard(s) Identification

- 2.1. Classification of the substance or mixture
 - 2.1.1. Classification: This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by OSHA Hazard Communication Standard 29 CFR 1910.1200 and the European Directive 91/155/EEC, and 93/112/EC.
 - 2.1.2. Additional information
- 2.2. Label
 - 2.2.1. None required.
- 2.3. Other hazards:
 - 2.3.1. May cause minor irritation of the eyes and skin.

Section 3: Composition/Information on Ingredients

- 3.1. Substances
 - 3.1.1. Not relevant (mixture).
- 3.2. Mixtures
 - 3.2.1. This product does not contain any hazardous substances at the concentration limits given in the Regulation (EC) No. 1272/2008 and OSHA Hazard Communication Standard 29 CFR 1910.1200

Component	CAS-No.	Concentration
Sodium Chloride (NaCl)	7647-14-5	40%
Lithium Chloride	7447-41-8	6%
Sodium Phosphate	7558-79-4	19.0%

Section 4: First-Aid Measures

- 4.1. First-aid measures
 - 4.1.1. Contact with skin
 - 4.1.1.1. 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.
 - 4.1.2. Contact with eyes



SAFETY DATA SHEET

- 4.1.2.1. If substance has gotten into eyes, immediately wash out with plenty of water for at least 15 minutes.
- 4.1.3. Ingestion
 - 4.1.3.1. If swallowed, wash mouth out with water provided person is conscious. Seek medical attention immediately.
- 4.1.4. Inhalation
 - 4.1.4.1. If inhale, supply fresh air or oxygen. Seek medical attention. If breathing is difficult, give oxygen. In case of unconsciousness, place patient on side position for transportation.
- 4.2. Most important symptoms and effects, both acute and delayed
 - 4.2.1. May cause irritation.
- 4.3. Indication of any immediate medical attention and special treatment needed
 - 4.3.1. Treat symptomatically.

Section 5: Fire-Fighting Measures

- 5.1. Suitable Extinguishing Media
 - 5.1.1. Use water spray, carbon dioxide, dry chemical powder, or appropriate foam.
- 5.2. Special hazards arising from the substance or mixture
 - 5.2.1. Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- 5.3. Recommendations for firefighters
 - 5.3.1. Firefighters should wear protective equipment and self-contained breathing apparatus.

Section 6: Accidental Release Measures

- 6.1. Personal precautions, protective equipment, and emergency procedures
 - 6.1.1. Avoid inhalation and contact with skin and eyes.
 - 6.1.2. Wear self-containing breathing apparatus, rubber boots, and heavy rubber gloves.
- 6.2. Environmental Precautions
 - 6.2.1. Shut off all sources of ignition, ventilate spill area.
- 6.3. Methods and materials used for containment
- 6.4. Cleanup Procedures
 - 6.4.1. Contact safety officer and ventilate area. Absorb spill with inert material, including dry-lime, sand, or soda ash, then place into a chemical waste container using non-sparking tools. Wash spill site after material pickup is complete.

Section 7: Handling and Storage

- 7.1. Precautions for safe handling
 - 7.1.1. Do not ingest.
 - 7.1.2. Do not breathe vapor.
 - 7.1.3. Avoid contact with eyes, skin, and clothing.
 - 7.1.4. Avoid prolonged or repeated exposure.
 - 7.1.5. Do not use if skin is cut or scratched.
 - 7.1.6. Ensure adequate ventilation.
- 7.2. Conditions for safe storage, including any incompatibilities
 - 7.2.1. Store at temperatures not exceeding 30°C/86°F. Keep cool.
 - 7.2.2. Store in a well-ventilated place. Keep container tightly closed.
 - 7.2.3. Store in a dry place.

7.2.4. Keep away from oxidizing substances.

7.2.5. Keep away from acid.

Section 8: Exposure Controls/Personal Protection

8.1. Engineering Controls

8.1.1. Do not use compressed air by filling, discharging, or handling the product. Proper ventilation, safety shower, and eye bath required.

8.2. Personal Protective Equipment

8.2.1. Wear suitable protective clothing such as gloves, safety glasses, and lab coat. No respiratory protection is needed if ventilation/extraction is adequate.

8.2.2. Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.

8.2.3. Wear safety glasses approved to standard for NIOSH (US) or EN 166.

8.3. Exposure controls

8.3.1. Eyewash bottles should be available.

Section 9: Physical and Chemical Properties

9.1. Information on physical and chemical properties

9.1.1. Appearance: Homogeneous, free-flowing powder, light-beige

9.1.2. Odor: No information available.

9.1.3. Odor threshold: No information available.

9.1.4. pH: 7.2 ± 0.2 at 25°C

9.1.5. Melting point/Range: No information available.

9.1.6. Boiling point/Range: Not determined

9.1.7. Flashpoint: No information available.

9.1.8. Evaporation Rate: No information available.

9.1.9. Flammability: No information available.

9.1.10. Vapor Pressure: No information available.

9.1.11. Vapor Density: No information available.

9.1.12. Relative Density: No information available.

9.1.13. Solubility in water: Completely soluble in water.

9.1.14. Partition Coefficient (n-Octanol/Water): No information available.

9.1.15. Autoignition Temperature: No information available.

9.1.16. Decomposition temperature: No information available.

9.1.17. Explosive Properties: Product does not present an explosion hazard

9.1.18. Viscosity: No information available.

9.2. Other information:

9.2.1. No information available.

Section 10: Stability and Reactivity

10.1. Reactivity

10.1.1. No information available.

10.2. Chemical stability

10.2.1. 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

10.4.1. Avoid strong oxidizing agents and strong bases.

10.5. Incompatible materials

10.5.1. Incompatible with strong oxidizing agents and strong bases.

10.6. Hazardous decomposition products

10.6.1. Decomposition products may include Potassium oxides, Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sodium oxides, Sulfur oxides, and Hydrogen chloride gas. Thermal decomposition may produce toxic fumes of phosphorous oxides and/or phosphine.

Section 11: Toxicological Information

11.1. Information on toxicological effects

11.1.1. No experimental data available

11.1.2. Contact with skin

11.1.2.1. May cause mild irritation

11.1.3. Contact with eyes

11.1.3.1. May cause mild irritation

11.1.4. Inhalation:

11.1.4.1. May cause coughing

11.1.5. Carcinogenicity

11.1.5.1. No evidence of carcinogenic effects

11.1.6. Mutagenicity

11.1.6.1. No evidence of mutagenic effects

11.1.7. Teratogenicity

11.1.7.1. No information available.

Section 12: Ecological Information

12.1. Toxicity:

12.1.1.1. Sodium Chloride

12.1.1.1.1. Toxicity to fish

12.1.1.1.1.1. LC₅₀ – *Lepomis macrochirus* (Bluegill) – 5840 mg/L; 96 h

12.1.1.1.2. Toxicity to daphnia and other aquatic invertebrates

12.1.1.1.2.1. EC₅₀ – *Daphnia magna* (Water flea) – 874 mg/L; 48 h12.1.1.1.2.2. NOEC – *Daphnia pulex* (Water flea) – 314 mg/L; 21 d

12.1.1.2. Lithium Chloride

12.1.1.2.1. Toxicity to fish

12.1.1.2.1.1. LC₅₀ – *Oncorhynchus mykiss* (rainbow trout) – 158 mg/L; 96 h

12.1.1.2.2. Toxicity to daphnia and other aquatic invertebrates

12.1.1.2.2.1. EC₅₀ – *Daphnia magna* (Water flea) – 249 mg/L; 48 h

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

12.5.1. Not a PBT according to REACH annex XIII

12.5.2. PBT/vPvB assessment not available

12.6. Other adverse effects

12.6.1. To the best of our knowledge, the properties of this material have not been fully evaluated

12.6.2. On available data, substance is not harmful to the environment

Section 13: Disposal Considerations**13.1. Waste treatment methods**

13.1.1. Disposal should be in accordance with local, state, or national legislation.

13.2. Classification (REACH)

13.2.1. Waste Codes in accordance with 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 available.

14.3. Transport hazard class(es): Not available.

14.4. Packing group number: Not available.

14.5. Environmental hazards: Not classified.

14.6. Guidance on transport in bulk (according to Annex II of MARPOL 73/78 and IBC code): Not classified.

Section: 15: Regulatory Information**15.1. Safety, health, and environmental regulations/legislation specific for the substance or mixture**

15.1.1. This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006-453/2010 and OSHA Hazard Communication Standard 29 CFR 1910.1200.

15.1.2. 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 16: Other Information

16.1. This document is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY. Millennium LifeSciences, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.