ListShield™ (LMP-100™)
Listeria monocytogenes-specific phage preparation

Section 1: Identification

Product identifier
Product name: ListShield™ (LMP-102™)
Catalog #: 01LP

Recommended use of the chemical and restrictions on use
Phage preparation effective against *Listeria monocytogenes*

Supplier’s details
Intralytix, Inc.
8681 Robert Fulton Drive
Columbia, MD 21046

Emergency phone number
1-877-ITX-PHAGE
Monday–Friday 9:00 AM – 5:00 PM

Section 2: Hazard identification

Classification of substance or mixture
Not a hazardous substance or mixture

GHS label elements, including precautionary statements
Not a hazardous substance or mixture

Other hazards which do not result in classification
None

Section 3: Composition/information on ingredients

Mixture
Bacteriophages in aqueous 0.1M sodium chloride solution

Component list

<table>
<thead>
<tr>
<th>Component</th>
<th>% composition</th>
<th>CAS #</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>&gt; 99.4</td>
<td>7732-18-5</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>0.58</td>
<td>7647-14-5</td>
<td>Not applicable</td>
</tr>
<tr>
<td><em>Listeria monocytogenes</em> – specific phages</td>
<td>&lt; 0.01</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Section 4: First-aid measures

Description of first-aid measures

If inhaled:
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact:
Wash off with soap and water.

In case of eye contact:
Flush eyes with water as a precaution.

If swallowed:
Never give anything by mouth to an unconscious person. If swallowed in excess, rinse mouth with water as a precaution.

Most important symptoms and effects, both acute and delayed:
The most important known symptoms and effects are described in the labelling (see Section 2) and/or in Section 11.

Indication of any immediate medical attention and special treatment needed:
No data available

Section 5: Fire-fighting measures

Suitable extinguishing media
No restrictions

Specific hazards arising from the chemical
None

Special protective actions for fire-fighters
None

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
For personal protection, see Section 8.

Environmental precautions
No special environmental precautions required

Method and materials for containment and cleaning up
Keep in suitable closed containers. Mop up or absorb with an inert dry material and place in an appropriate waste disposal container. No specific spill kit is required for this product
Section 7: Handling and storage

Precautions for safe handling
For precautions, see Section 2

Conditions for safe storage, including any incompatibilities
Keep container closed, refrigerated at 2-8°C, and protected from light.

Section 8: Exposure controls / personal protection

Control parameters
Contains no substances with occupational exposure limit values.

Appropriate engineering controls
General industrial hygiene practice

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
When using as an aerosol, wear eye protection and provide access to eye/face flushing equipment.

Skin protection
A lab coat and/or gloves may be worn when handling this solution.

Respiratory protection
When airborne exposure limits are exceeded or ventilation is inadequate, use appropriate NIOSH approved respiratory protection equipment. Respiratory protection programs are subject to 29 CFR § 1910.134.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear/opalescent liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 – 7.5</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>May start to solidify at –0.1°C (31.8°F) (WATER)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>The lowest known value is 99.9°C (211.8°F) (WATER).</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Vapor density
Relative density
Solubility
Partition coefficient: n-octanol/water
Auto-ignition temperature
Decomposition temperature
Viscosity

No data available
1.01 g/cm³
Soluble in water
No data available
No data available
No data available
No data available

Section 10: Stability and reactivity

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions

Possibility of hazardous reactions
No data available

Conditions to avoid
No data available

Incompatible materials
No data available

Hazardous decomposition products
No data available

Section 11: Toxicological information

Acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available
Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probably, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Section 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

Section 13: Disposal considerations

Disposal methods

Product

Material does not have an EPA Waste Number and is not a listed waste, however, always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.
Packaging
Package may be recycled, if such disposal options exist.

Section 14: Transport information

UN Number
Not relevant

UN Proper Shipping Name
Not relevant

Transport hazard class
Not hazardous

Packing group
Not relevant

Environmental hazards
Not relevant

Special precautions
Keep refrigerated / cool during shipment

Section 15: Regulatory information

TSCA
Not applicable

SARA 302
Not applicable

SARA 311/312
Not applicable

SARA 313
Not applicable

CERCLA
Not applicable

California Proposition 65
This product does not contain any Proposition 65 chemicals.

US State Right-to-Know Regulations
Not applicable
Section 16: Other information

Revision date Version
March 9, 2020 3

Further information
Notice to Reader

The statements contained herein are based upon technical data that Intralytix, Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data 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, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

INTRALYTIX, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.