# Safety Data Sheet

**FSS MAP Liposome**

<table>
<thead>
<tr>
<th>Date: 06 / 01 / 2015</th>
<th>Version: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECTION 1. IDENTIFICATION</strong></td>
<td><strong>Page: 1/9</strong></td>
</tr>
</tbody>
</table>

**Product Name/Identifier** | FSS MAP Liposome  
**Product Code** | FSS60162  
**Recommended Use** | Topical Cosmetic Use  
**Restrictions on Use** | None  
**Supplier/Manufacturing Site** | Formulator Sample Shop  
**Address** | P.O. Box 296  
| Iron Station, NC 28080, USA  
**Telephone No. (24hrs)** | 1-704-276-7099  
**Fax No.** | 1-704-353-7987  
**Emergency Telephone #** | 1-704-276-7099 (Mon-Fri: 8:00AM – 5:00PM EST)

**SECTION 2. HAZARD(S) IDENTIFICATION**

**Classification:**

**GHS / CLP**
- **Basis for Classification:** Based on present data no classification and labeling is required according to GHS, taking into account the national implementation (United Nations version 2011)

**USA**
- **OSHA Regulatory Status:** This material is non-hazardous as defined by the American OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Europe**
- **Basis for Classification:** According to present data no classification and labeling is required according to Directives 67/548/EEC or 1999/45/EC.  
  - This product is not classified as hazardous to health or environment according to the CLP regulation.

**Labeling Elements:**
- **Pictograph:** No hazard symbol expected
- **Hazard statements/Signal Word:** Not applicable
- **Precautionary statements:** P233: Keep container tightly closed
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P281: Use personal protective equipment as required
P402: Store in a dry place
P404: Store in a closed container
P410: Protect from sunlight
P411: Store at temperatures not exceeding 25°C

Other hazards which do not result in classification:

No particular fire or explosion hazard.
By mechanical effect: No particular hazards.
By hydrosopic effect: No particular hazards.

US NFPA 704 (National Fire Protection Association) Hazard Rating System:

Health hazard: Rating 0; Normal Material
Flammability: Rating 0; Will Not Burn
Reactivity: Rating 0, Stable
Other Hazard Information: None

Results of PBT and vPvB assessment:

-PBT: Not applicable
-vPvB: Not applicable

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Chemical Name: Water & Phospholipids & Magnesium Ascorbyl Phosphate

Generic name:

Chemical Family: Liposomes

Description: Mixture: consisting of the following components. This section describes all components of the mixture

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Numbers</th>
<th>EC Numbers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>87.90%</td>
</tr>
<tr>
<td>Phospholipids</td>
<td>123465-35-0</td>
<td>N/A</td>
<td>10.00%</td>
</tr>
<tr>
<td>Leuconostoc/Radish Root Ferment Filtrate</td>
<td>84775-94-0</td>
<td>283-918-6</td>
<td>2.00%</td>
</tr>
<tr>
<td>Magnesium Ascorbyl Phosphate</td>
<td>114040-31-2</td>
<td>N/A</td>
<td>0.10%</td>
</tr>
</tbody>
</table>

Formula: Not applicable

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guarantee of their accuracy is made and we assume no liability regarding this formula or information contained herein. In every case we urge and recommend that our customers make their own tests to determine to their own satisfaction whether the product is suitable for their particular purposes under their own operating conditions. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without the authority from the owner of this patent.
SECTION 4. FIRST-AID MEASURES

General: In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation: Move to fresh air from exposure area. Get medical attention for any breathing difficulty.

Skin contact: Rinse with soap and water. Get medical advice if irritation develops.

Eye contact: Immediately rinse with plenty of water for at least 15 minutes, while keeping the eyes wide open. Consult with a physician.

Ingestion: Consult with a physician.

Protection of first-aiders: No special protection required.

SECTION 5. FIRE-FIGHTING MEASURES

Fire and explosion hazards: Not considered to be a fire and explosion hazard

Extinguishing media:

Suitable: Water, dry chemicals, foam and carbon dioxide

Not suitable: None known

Fire fighting: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low area

Protection for fire-fighters: Boots, gloves, goggles.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with eyes.

Personal Protective Equipment: -Protective goggles
## Environmental precautions:
Prevent entry into sewers and waterways. Do not allow material to contaminate ground water system.

## Methods for cleaning up:

### Recovery:
Pick up free liquid for recycling or disposal. Residual liquid can be absorbed on an inert material.

### Cleaning/Decontamination:
Wash non-recoverable remainder with water.

### Disposal:
For disposal of residues refer to sections 8 & 13.

### SECTION 7. HANDLING AND STORAGE

#### Handling
**Technical measures:**
Labeling: Keep out of the reach of children.

**Measures:**
For industrial use, only as directed.

**Safe handling advice:**
Wash hands after use. Avoid storage near feed or food stuff.

#### Storage
**Technical measures:**
Keep container closed.

**Recommended Storage Conditions:**
Store in a cool, dry place. This material must be stored at room temperature (23 - 25°C). It should not be exposed to excessive heat or cold. Do not freeze.

**Incompatible products:**
Avoid contact with strong oxidizers.

**Packaging:**
Product may be packaged in normal commercial packaging.

**Packaging materials:**
Recommended - Polypropylene & High Density Polyethylene

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Precautionary statements:**
Ensure adequate ventilation

**Control parameters**

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Occupational exposure Limits:
France: Not Determined
ACGIH: Not Determined
Korea: Not Determined
UK: Not Determined
Surveillance procedures: Not Determined
Engineering measures: Not Determined

Personal Protective Equipment:
Respiratory protection: Local exhaust
Hand protection: Protective gloves made of rubber or neoprene.
Eye protection: Safety glasses.
Collective emergency equipment: Eye fountain.
Skin and Body Protection: Suitable protective clothing
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
Measures related to the Environment: No particular measures.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liposomal emulsion
Color: Dark tan
Odor: Characteristic
pH (Direct): 4.5 – 6.5
Particle Size: 80 – 150 nm
Heavy Metals: < 20 ppm
Arsenic: < 2 ppm
Microbial Content: < 100 CFU/g
No pathogens
Specific Gravity: Not determined
Vapor density: Not applicable
Boiling Point: 100°C
Freezing Point: 0°C
Melting point: Not applicable
Flash point: > 200°F
Oxidizing properties: Non oxidizing material according to EC criteria.
Solubility:
In water: Dispersible
In organic solvents: Not determined
Log P: Not determined

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SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage up to one year then re-test to full product specifications to extend shelf life

Hazardous reactions: None known

Conditions to avoid: No dangerous reactions known under use of normal conditions.

Avoid extreme heat.

Materials to avoid: No dangerous reaction known with common products.

Hazardous decomposition products: None known

SECTION 11. TOXICOLOGICAL INFORMATION

Ingestion: Not Determined

Dermal: Not Determined

Ocular: Not Determined

Inhalation: Not Determined

Acute toxicity data: Not Determined

Sensitization: Non-Primary Sensitizers

Repeated dose toxicity: No known effects

Subacute to chronic toxicity: Not Determined

Additional Toxicological Information: This product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Specific effects:

Carcinogenicity: No known effects

Mutagenicity: No known effects

Reproductive toxicity: No known effects

Neuro-toxicity: No known effects

For more information: Does not present any particular risk on handling under normal conditions of good occupational hygiene practice.

This product has not been tested for the following:

- Primary cutaneous and corrosive irritation
- Acute oral toxicity
- Mutagenicity/genotoxicity

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Effects on the aquatic environment: Not Determined

Biodegradability:
Persistence: Not Determined

Bioaccumulation:
Octanol / water partition coefficient: Not Determined

Mobility:
Precipitation:
Expected behavior of the product: Ultimate destination of the product: Soil & sediment.

Other Adverse Effects: None known

SECTION 13. DISPOSAL CONSIDERATIONS

Residues from product

Prohibition: Do not allow the product to be released into the Environment.
Destruction/Disposal: Dispose of in accordance with relevant local regulations

Contaminated packaging

Decontamination/cleaning: Cleaning is not required prior to disposal.
Destruction/Disposal:

Note: Take all necessary precautions when disposing of this product according to local regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number: None
UN Shipping Name: None
Transport Hazard Class: Not classified as dangerous for transport

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### SECTION 15. REGULATORY INFORMATION

#### Labeling:

**EC regulations:** This product does not need to be labeled in accordance with EC Directives or respective national laws

#### Further regulations

**United Kingdom:** Handle in accordance with relevant British regulation: control of substance Hazardous to Health Regulations Environmental

Hygiene Guidance: EH40

Workplace Exposure Limits (revised annually)

**Korea regulations:**

Industrial safety and hygiene regulation: No

Hazardous material control regulation: No

Fire prevention regulation: No

#### Other regulations:

<table>
<thead>
<tr>
<th>EINECS inventory status:</th>
<th>Aqua: 231-791-2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phospholipids: N/A</td>
</tr>
<tr>
<td>Phospholipids:</td>
<td>N/A</td>
</tr>
<tr>
<td>Leuconostoc/Radish Root Ferment Filtrate:</td>
<td>283-918-6</td>
</tr>
<tr>
<td>Magnesium Ascorbyl Phosphate:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**TSCA inventory status:** Exempt
## Safety Data Sheet

FSS MAP Liposome

Date: 06 / 01 / 2015  
Version: 1  
Cancels and replaces version:

### AICS inventory status:
Not Listed: 114040-31-2  
Listed: 7732-18-5 & 123465-35-0 & 84775-94-0

### Canadian (CEPA DSL) inventory status:
Listed as Water (DSL) & Phospholipids (DSL) & Radish, ext. (Revised ICL) & L-Ascorbic acid, mono(dihydrogen phosphate), magnesium salt (1:1) (Revised ICL)

### Japan (MITI list):
Water & Phospholipids & Leuconostoc/Radish Root Ferment Filtrate & Magnesium Ascorbyl Phosphate

### Korea:
Water & Phospholipids & Leuconostoc/Radish Root Ferment Filtrate** & Magnesium Ascorbyl Phosphate

### China inventory status:
Water & Phospholipids & Leuconostoc/Radish Root Ferment Filtrate & Magnesium Ascorbyl Phosphate

### Philippines inventory status:
Exempt: Phospholipids (123465-35-0)  
Not Listed: Leuconostoc/Radish Root Ferment Filtrate (84775-94-0) & Magnesium Ascorbyl Phosphate (114040-31-2)  
Listed as

*Listed on 2010 INCI Standard Chinese Name Directory  
**Not listed in 2004 CTFA Dictionary – Registered with Personal Care Products Council

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the products described in this sheet. The user’s attention is drawn to the possible existence of additional provision which complete these regulations. Please refer to all applicable international, national and local regulations and provisions

### SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Prohibited uses:</th>
<th>For specific uses, food industry, ask the manufacturer for more information.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Revision Date:</td>
<td>N/A</td>
</tr>
<tr>
<td>Preparation Date:</td>
<td>06/01/2015</td>
</tr>
<tr>
<td>MSDS summary of changes</td>
<td>No deletion, addition or revision to date</td>
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The information given is based on our knowledge of this product, at the time of publication in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than which it was intended. This is not in any way excuse the user from knowing and applying all the regulations governing their activity. It is sole responsibility of the user to take all precautions required in handling the product. The purpose of mandatory regulation mentioned is to help the user to fulfill his obligations regarding the use of products. This information is not exhaustive, this is not exonerate the user from ensuring that legal obligations other than those mentioned, relating to the use and storage.

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