SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: Esorb L-20

Product Code(s)

: Not available.

Recommended use of the chemical and restrictions on use

: Personal care applications

: No restrictions on use known.

Chemical family

: Organic surfactants

Name, address, and telephone number of the supplier:

Essential Ingredients

2408 Tech Center Parkway

Suite 200

Lawrenceville, GA, US

30043

Supplier's Telephone # : (770) 831-9010

24 Hr. Emergency Tel # : (800) 424-9300 (CHEMTREC)

Name, address, and telephone number of the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Label elements

Signal Word

: None required.

Hazard statement(s)

: None required.

Precautionary statement(s)

: None required.

Other hazards

Other hazards which do not result in classification:

May cause mild eye irritation. Ingestion can cause gastrointestinal irritation, nausea, and diarrhea. Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS #</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20</td>
<td>Polyoxyethylene Sorbitan Monolaurate</td>
<td>9005-64-5</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

No hazardous ingredients are known.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures
SAFETY DATA SHEET

**Ingestion**
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing is irregular or stopped, administer artificial respiration. When symptoms persist or in all cases of doubt seek medical advice.

**Skin contact**
For skin contact, wash with soap and water while removing contaminated clothing. If skin irritation or rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse.

**Eye contact**
Flush eyes with water for at least 15 minutes while holding eyelids open. If irritation or symptoms develop, seek medical attention.

Most important symptoms and effects, both acute and delayed
Direct skin contact may cause slight or mild, transient irritation. May cause eye irritation. Symptoms may include stinging and tearing. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable extinguishing media**
Carbon dioxide (CO2); Dry chemical; Alcohol resistant foam. Water spray

**Unsuitable extinguishing media**
Do not use a solid water stream as it may scatter and spread fire.

**Special hazards arising from the substance or mixture / Conditions of flammability**
Not flammable. Closed containers may build up pressure when exposed to heat and flame.

**Flammability classification (OSHA 29 CFR 1910.106)**
Not flammable.

**Hazardous combustion products**
Carbon oxides and other irritating fumes and smoke.

**Special protective equipment and precautions for firefighters**

**Protective equipment for fire-fighters**
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

**Special fire-fighting procedures**
Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**
All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

**Environmental precautions**
Ecological injuries are not known or expected under normal use.

**Methods and material for containment and cleaning up**
Ventilate the area. Prevent further leakage or spillage if safe to do so. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). For waste disposal, see Section 13 of the SDS. Contact the proper local authorities.
SAFETY DATA SHEET

Special spill response procedures
If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).
US CERCLA Reportable quantity (RQ): None known.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling
Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing dust, fume or vapors. Wear protective gloves. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and direct flame. Keep container tightly closed when not in use. Wash thoroughly after handling.

Conditions for safe storage
Store in cool/well-ventilated place. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Protect from freezing. Store at temperatures below 48.8°C (120°F).

Incompatible materials
Oxidizing agents

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>Polysorbate 20</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

Exposure controls

Ventilation and engineering measures
Use with adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection
None required under normal conditions. If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Advice should be sought from respiratory protection specialists.

Skin protection
Gloves impervious to the material are recommended. Any liquid-tight rubber or vinyl gloves. Advice should be sought from glove suppliers. Wear sufficient clothing to prevent skin contact.

Eye / face protection
Safety glasses with side-shields

Other protective equipment
Other equipment may be required depending on workplace standards. An eyewash station and safety shower should be made available in the immediate working area. Use non-slip safety shoes in areas where spills or leaks can occur.

General hygiene considerations
Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Not available.

Odour
Not available.

Odour threshold
N/Av

pH
N/Av

Melting/Freezing point
N/Av
SAFETY DATA SHEET

Initial boiling point and boiling range
: Not available.
Flash point
: 321.11°C (610°F)
Flashpoint (Method)
: Not available.
Evaporation rate (BuAe = 1)
: N/Av
Flammability (solid, gas)
: Not applicable.
Lower flammable limit (% by vol.)
: N/Av
Upper flammable limit (% by vol.)
: N/Av
Oxidizing properties
: None known.
Explosive properties
: Not explosive
Vapour pressure
: N/Av
Vapour density
: N/Av
Relative density / Specific gravity
: 1.1
Solubility in water
: Soluble.
Other solubility(ies)
: N/Av
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution
: N/Av
Auto-ignition temperature
: N/Av
Decomposition temperature
: N/Av
Viscosity
: N/Av
Volatiles (% by weight)
: Not available.
Volatile organic Compounds (VOC's)
: N/Av
Absolute pressure of container
: N/Ap
Flame projection length
: N/Ap
Other physical/chemical comments
: Activity: 97% Max

SECTION 10. STABILITY AND REACTIVITY
Reactivity
: Not normally reactive.
Chemical stability
: Stable under normal conditions.
Possibility of hazardous reactions
: Hazardous polymerization does not occur.
Conditions to avoid
: Avoid excessive heat or cold. Avoid contact with incompatible materials.
Incompatible materials
: Oxidizing agents
Hazardous decomposition products
: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure:
Routes of entry inhalation
: YES
Routes of entry skin & eye
: YES
Routes of entry Ingestion
: YES
SAFETY DATA SHEET

Routes of exposure skin absorption

: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. Symptoms may include sore throat, running nose and shortness of breath.

Sign and symptoms ingestion

: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin

: May cause mild skin irritation on prolonged contact.

Sign and symptoms eyes

: May cause mild eye irritation. Symptoms may include stinging and tearing.

Potential Chronic Health Effects

: Overexposure may cause eye, skin and gastrointestinal irritation.

Mutagenicity

: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

: 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, IARC, OSHA, or NTP.

Reproductive effects & Teratogenicity

: Not expected to cause reproductive effects.

Sensitization to material

: None known or reported by the manufacturer.

Specific target organ effects

: The substance or mixture is not classified as specific target organ toxicant, single exposure.

: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Medical conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

Synergistic materials

: None reported by the manufacturer.

Toxicological data

: See below for toxicological data on the substance.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>LC50(4hr)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>inh, rat</td>
<td>Oral, rat</td>
</tr>
<tr>
<td>Polysorbate 20</td>
<td>&gt;5.1 mg/L</td>
<td>36700 mg/kg</td>
</tr>
</tbody>
</table>

Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

: See the following tables for individual ingredient ecotoxicity data. Prevent product from entering drains, sewers, waterways and soil.
**SAFETY DATA SHEET**

**Ecotoxicity data:**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Toxicity to Fish</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20</td>
<td>9005-64-5</td>
<td>LC50 / 96h &gt;100mg/L (Zebra fish)</td>
<td>NOEC / 21 day N/Av</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Toxicity to Daphnia</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20</td>
<td>9005-64-5</td>
<td>EC50 / 48h N/Av</td>
<td>NOEC / 21 day 23.9mg/L (Water flea)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Toxicity to Algae</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20</td>
<td>9005-64-5</td>
<td>EC50 / 96h or 72h 58.84mg/L (Green algae)</td>
<td>NOEC / 96h or 72h N/Av</td>
</tr>
</tbody>
</table>

**Persistence and degradability:**

- Readily biodegradable.

**Bioaccumulation potential:**

- This product has no known eco-toxicological effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Partition coefficient n-octanol/ater (log Kow)</th>
<th>Bioconcentration factor (BCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20 (CAS 9005-64-5)</td>
<td>1.23</td>
<td>7.07</td>
</tr>
</tbody>
</table>

**Mobility in soil:**

- No information available.

**Other Adverse Environmental effects:**

- None known.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Handling for Disposal:**

- Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

**Methods of Disposal:**

- Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA:**

- If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**SECTION 14. TRANSPORTATION INFORMATION**

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>None.</td>
<td>Not regulated.</td>
<td>not regulated</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

TDG

Additional information

None.

49CFR/DOT

Not regulated.

49CFR/DOT

Additional information

None.

Special precautions for user

Appropriate advice on safety must accompany the package.

Environmental hazards

This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>TSCA Inventory</th>
<th>CERCLA Reportable Quantity(RQ) (40 CFR 117.302):</th>
<th>SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:</th>
<th>SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical Toxic Chemical</th>
<th>de minimus Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20</td>
<td>9005-64-5</td>
<td>Yes</td>
<td>N/Ap</td>
<td>N/Ap</td>
<td>N/Ap</td>
<td>N/Ap</td>
</tr>
</tbody>
</table>

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: None. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>California Proposition 65 Listed</th>
<th>Type of Toxicity</th>
<th>State &quot;Right to Know&quot; Lists CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20</td>
<td>9005-64-5</td>
<td>No</td>
<td>N/Ap</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Canadian Information:

Canadian Environmental Protection Act (CEPA): All ingredients listed appear on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

Canadian National Pollutant Release Inventory (NPRI): This product contains the following substances listed on the NPRI: None known.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.
International Information:
Components listed below are present on the following International Inventory list:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>European EINECs</th>
<th>Australia AICS</th>
<th>Philippines PICCS</th>
<th>Japan ENCS</th>
<th>Korea KECI/KECL</th>
<th>China IECSC</th>
<th>NewZealand IOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 20</td>
<td>9005-64-5</td>
<td>N/Av</td>
<td>Present</td>
<td>Present</td>
<td>(8)-55</td>
<td>KE-31681</td>
<td>Present</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

Legend:
ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
CA: California
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DOT: Department of Transportation
EC50: Effective Concentration 50%.
EINECS: European Inventory of Existing Commercial chemical Substances
ENCS: Existing and New Chemical Substances
EPA: Environmental Protection Agency
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IBC: Intermediate Bulk Container
IECSC: Inventory of Existing Chemical Substances
IMDG: International Maritime Dangerous Goods
IOC: Inventory of Chemicals
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
N/A: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System
SAFETY DATA SHEET

References:
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2014.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2015 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - October 2012 version.

Preparation Date (mm/dd/yyyy): 06/14/2015

Other special considerations for handling:
Provide adequate information, instruction and training for operators.

HMIS Rating:
- Chronic hazard: 1
- Minimal: 0
- Slight: 2
- Moderate: 3
- Serious: 4
- Severe: 4

NFPA Rating:
- Health: 1
- Flammability: 1
- Reactivity: 0
- Instability: 0
- Special Hazards: None

Prepared for:
Essential Ingredients
2408 Tech Center Parkway Suite 200
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www.essentialingredients.com

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Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada)
http://www.thecompliancecenter.com

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