

SAFETY DATA SHEET



Revision date 31-Aug-2020

Revision Number 1

1. Identification

Product identifier

Product Name Ledum Essential Oil

Other means of identification

Product Code(s) RM00026

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Consumer use

Restrictions on use For external use only

Details of the supplier of the safety data sheet

Supplier Address

Plant Therapy, LLC
621 Washington St. S., Suite 100
Twin Falls, ID 83301 USA

Emergency telephone number

Company Phone Number 208-735-2413

Emergency Telephone 800-917-6577

2. Hazard(s) identification

Classification

| | |
|---------------------------|-------------|
| Skin corrosion/irritation | Category 2 |
| Skin sensitization | Category 1B |
| Aspiration hazard | Category 1 |
| Flammable liquids | Category 3 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Causes skin irritation
May cause an allergic skin reaction

May be fatal if swallowed and enters airways
Flammable liquid and vapor



Appearance Liquid

Physical state Liquid

Odor Characteristic

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ ventilating/ lighting/ .? / equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/eye protection/face protection

Precautionary Statements - Response

Specific treatment (see .? on this label)
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
Wash contaminated clothing before reuse
IF SWALLOWED: Immediately call a POISON CENTER or doctor
Do NOT induce vomiting
In case of fire: Use CO₂, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

No information available.

3. Composition/information on ingredients

Substance

| Chemical name | CAS No | Weight-% | Trade secret |
|---------------------|------------|----------|--------------|
| Ledum Essential Oil | 93384-25-9 | 100 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

| | |
|---|--|
| Inhalation | Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur. Remove to fresh air. |
| Eye contact | Do not rub affected area. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. |
| Ingestion | ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. |
| Self-protection of the first aider | Remove all sources of ignition. See section 8 for more information. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. |

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically. Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.

5. Fire-fighting measures

| | |
|--|---|
| Suitable Extinguishing Media Large Fire | Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient. |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. |
| Specific hazards arising from the chemical | Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitizer. May cause sensitization by skin contact. |
| Explosion data | |
| Sensitivity to mechanical impact | None. |
| Sensitivity to static discharge | Yes. |
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions See section 8 for more information. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary

measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. In case of insufficient ventilation, wear suitable respiratory equipment. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------------|---|
| Eye/face protection | Tight sealing safety goggles. |
| Hand protection | Wear suitable gloves. Impervious gloves. |
| Skin and body protection | Chemical resistant apron. Antistatic boots. Wear suitable protective clothing. Long sleeved clothing. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. |

9. Physical and chemical properties

Information on basic physical and chemical properties

| | |
|-----------------------|--------------------------|
| Physical state | Liquid |
| Appearance | Liquid |
| Color | Characteristic |
| Odor | Characteristic |
| Odor threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|--------------------------|-------------------------|
| pH | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flash point | 55 °C / 131 °F | None known |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| <u>Other information</u> | | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |
| Softening point | No information available | |
| Molecular weight | No information available | |
| VOC Content (%) | No information available | |
| Liquid Density | No information available | |
| Bulk density | No information available | |

10. Stability and reactivity

| | |
|-------------------|---------------------------|
| Reactivity | No information available. |
|-------------------|---------------------------|

| | |
|---|--|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | Heat, flames and sparks. |
| Incompatible materials | Strong acids. Strong bases. Strong oxidizing agents. |
| Hazardous decomposition products | None known based on information supplied. |

11. Toxicological information

Information on likely routes of exposure

Product Information

| | |
|---------------------|--|
| Inhalation | Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. |
| Eye contact | Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). |
| Skin contact | May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). |
| Ingestion | Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|-----------------|--|
| Symptoms | Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. |
|-----------------|--|

Acute toxicity

Numerical measures of toxicity

No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|---|
| Skin corrosion/irritation | Classification based on data available for ingredients. Irritating to skin. |
| Serious eye damage/eye irritation | No information available. |
| Respiratory or skin sensitization | May cause sensitization by skin contact. |
| Germ cell mutagenicity | No information available. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | May be fatal if swallowed and enters airways. |
| Other adverse effects | No information available. |

Interactive effects No information available.

12. Ecological information

Ecotoxicity The environmental impact of this product has not been fully investigated.

Persistence and degradability No information available.
Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. Transport information

DOT

UN/ID no UN1169
Proper shipping name EXTRACTS, AROMATIC, LIQUID
Hazard class 3
Packing group III

TDG

UN/ID no UN1169
Proper shipping name EXTRACTS, AROMATIC, LIQUID
Hazard class 3
Packing group III

IATA

UN number UN1169
UN proper shipping name Extracts, aromatic, liquid
Transport hazard class(es) 3
Packing group III
Civil Aeronautics Act Flammable liquids

IMDG

UN number UN1169
UN proper shipping name EXTRACTS, AROMATIC, LIQUID
Transport hazard class(es) 3
Packing group III

15. Regulatory information

International Inventories

TSCA Does not comply

| Chemical name | CAS No | US TSCA Inventory listing | US TSCA active/inactive designation |
|---------------------|------------|---------------------------|-------------------------------------|
| Ledum Essential Oil | 93384-25-9 | - | Unknown * |

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

| | |
|----------------------|-----------------|
| DSL/NDSL | Does not comply |
| EINECS/ELINCS | Complies |
| ENCS | Does not comply |
| IECSC | Does not comply |
| KECL | Does not comply |
| PICCS | Does not comply |
| AICS | Does not comply |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

| | | | | |
|-------------|-------------------------|-----------------------|---------------------------|---|
| NFPA | Health hazards 2 | Flammability 2 | Instability 0 | Physical and chemical properties - |
| HMIS | Health hazards 2 | Flammability 2 | Physical hazards 0 | Personal protection X |

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

Revision date 31-Aug-2020
Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet