

SECTION 1: Identification

1.1. Identification

Name : LAVENDER OIL SPIKE
CAS No : 8016-78-2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial uses: Uses of substances as such or in preparations* at industrial sites

1.3. Details of the supplier of the safety data sheet

Berje
700 Blair Road
Carteret, NJ 07008 - USA
T 973-748-8980 - F 973-680-9618
berje@berjeinc.com - www.berjeinc.com

1.4. Emergency telephone number

Emergency number : 1-800-424-9300 24 Hours Emergency Chemtrec. ERR - CCN2624

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 4	H227 -	Combustible liquid
Skin Irrit. 2	H315 -	Causes skin irritation
Skin Sens. 1	H317 -	May cause an allergic skin reaction
STOT SE 2	H371 -	May cause damage to organs
Aquatic Acute 2	H401 -	Toxic to aquatic life
Aquatic Chronic 2	H411 -	Toxic to aquatic life with long lasting effects

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H227 - Combustible liquid
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H371 - May cause damage to organs
H401 - Toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P260 - Do not breathe gas, fumes, vapour or spray
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing must not be allowed out of the workplace
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P321 - Specific treatment (see supplemental first aid instruction on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use media other than water to extinguish
P391 - Collect spillage
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up

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P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
LINALOOL	(CAS No) 78-70-6	25 - 50	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 3, H402
Eucalyptol	(CAS No) 470-82-6	25 - 50	Flam. Liq. 3, H226 Skin Sens. 1B, H317
CAMPHOR GUM	(CAS No) 76-22-2	10 - 25	Flam. Sol. 2, H228 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 STOT SE 2, H371 Aquatic Acute 3, H402
BISABOLENE	(CAS No) 495-62-5	1 - 5	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
beta-Pinene	(CAS No) 127-91-3	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
alpha-Pinene	(CAS No) 80-56-8	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
L-LIMONENE	(CAS No) 5989-54-8	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs: Gently wash with plenty of soap and water.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: May cause damage to organs.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour. Combustible liquid.
Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapours/spray.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Explosion-free electrical equipment and lighting with earth.
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed. Keep in fireproof place.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

beta-Pinene (127-91-3)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	ACGIH STEL (ppm)	20 ppm

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CAMPHOR GUM (76-22-2)		
ACGIH	ACGIH TWA (ppm)	2 ppm
ACGIH	ACGIH STEL (ppm)	2 ppm

8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure. Wash hands thoroughly after handling.
Hand protection	: Wear protective gloves/protective clothing/eye protection protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
Other information	: Do not eat, drink or smoke during use. Do not breathe gas, fumes, vapour or spray. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless
Odour	: characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 142 °F
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: 0.895
Relative vapour density at 20 °C	: No data available
Solubility	: Poorly soluble in water. Water: Solubility in water of component(s) of the mixture : • beta-Pinene: 0.0007 g/100ml • LINALOOL: 0.15 g/100ml • CAMPHOR GUM: 0.15 g/100ml
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture. Combustible liquid.

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10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

beta-Pinene (127-91-3)	
LD50 oral rat	4700 mg/kg (Rat)
ATE US (oral)	4700.000 mg/kg bodyweight
Eucalyptol (470-82-6)	
LD50 oral rat	2480 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	2480.000 mg/kg bodyweight
L-LIMONENE (5989-54-8)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
LINALOOL (78-70-6)	
LD50 oral rat	2790 mg/kg (Rat)
LD50 dermal rat	5610 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	2790.000 mg/kg bodyweight
ATE US (dermal)	5610.000 mg/kg bodyweight
CAMPHOR GUM (76-22-2)	
ATE US (oral)	500.000 mg/kg bodyweight
ATE US (dust,mist)	1.500 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: May cause damage to organs.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Harmful if inhaled.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.

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Symptoms/injuries after skin contact : Causes skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

beta-Pinene (127-91-3)	
LC50 fish 1	1 - 10 mg/l (96 h; Pisces)
LC50 other aquatic organisms 1	1 - 10 mg/l (96 h)
EC50 Daphnia 1	1 mg/l (48 h; Daphnia magna; QSAR)
LC50 fish 2	2 mg/l (96 h; Pisces)
Threshold limit other aquatic organisms 1	1 - 10,96 h
Threshold limit algae 1	0.6 mg/l (72 h; Algae)
Eucalyptol (470-82-6)	
LC50 fish 1	102 mg/l (96 h; Pimephales promelas)
Threshold limit other aquatic organisms 1	40.071 mg/l (720 h; Pimephales promelas; QSAR)
L-LIMONENE (5989-54-8)	
LC50 fish 1	0.702 mg/l (96 h; Pimephales promelas; Other isomer)
EC50 Daphnia 1	0.73 mg/l (48 h; Daphnia pulex; Other isomer)
LINALOOL (78-70-6)	
LC50 fish 1	22 - 46 mg/l (96 h; Leuciscus idus; Static system)
EC50 Daphnia 1	59 mg/l (48 h; Daphnia magna)
EC50 other aquatic organisms 1	>= 100 mg/l (3 h; Activated sludge)
LC50 fish 2	27.8 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
CAMPHOR GUM (76-22-2)	
LC50 fish 1	110 mg/l (96 h; Pimephales promelas; Other isomer)
EC50 Daphnia 1	100 mg/l (48 h; Daphnia magna; QSAR)
Threshold limit algae 1	68 mg/l (72 h; Algae)

12.2. Persistence and degradability

LAVENDER OIL SPIKE (8016-78-2)	
Persistence and degradability	May cause long-term adverse effects in the environment.
alpha-Pinene (80-56-8)	
Persistence and degradability	Not established.
beta-Pinene (127-91-3)	
Persistence and degradability	Not readily biodegradable in water. May cause long-term adverse effects in the environment.
Eucalyptol (470-82-6)	
Persistence and degradability	Water : Not biodegradable.
L-LIMONENE (5989-54-8)	
Persistence and degradability	Readily biodegradable in water. Adsorbs into the soil.
ThOD	3.29 g O ₂ /g substance
LINALOOL (78-70-6)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.531 g O ₂ /g substance
Chemical oxygen demand (COD)	2.808 g O ₂ /g substance
CAMPHOR GUM (76-22-2)	
Persistence and degradability	Not established.
ThOD	2.8 g O ₂ /g substance
BISABOLENE (495-62-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

LAVENDER OIL SPIKE (8016-78-2)	
Bioaccumulative potential	Not established.

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alpha-Pinene (80-56-8)	
Bioaccumulative potential	Not established.
beta-Pinene (127-91-3)	
BCF fish 1	718 (Pimephales promelas; QSAR)
Log Pow	4.16 (Experimental value)
Bioaccumulative potential	Bioaccumable. Not established.
Eucalyptol (470-82-6)	
Log Pow	1.84 (Calculated)
Bioaccumulative potential	Low bioaccumulation potential.
L-LIMONENE (5989-54-8)	
Log Pow	4.83 (QSAR)
Bioaccumulative potential	bioaccumulative.
LINALOOL (78-70-6)	
Log Pow	2.84 - 3.145
Bioaccumulative potential	Bioaccumable.
CAMPHOR GUM (76-22-2)	
Log Pow	< 3 (QSAR)
Bioaccumulative potential	Not established.
BISABOLENE (495-62-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

TDG

No additional information available

Transport by sea

UN-No. (IMDG) : 3082
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG) : III - substances presenting low danger

Air transport

UN-No. (IATA) : 3082
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.
Class (IATA) : 9 - Miscellaneous Dangerous Goods

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Packing group (IATA)

: III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

LAVENDER OIL SPIKE (8016-78-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

alpha-Pinene (80-56-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

beta-Pinene (127-91-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Eucalyptol (470-82-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

L-LIMONENE (5989-54-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

LINALOOL (78-70-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

CAMPHOR GUM (76-22-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

BISABOLENE (495-62-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

alpha-Pinene (80-56-8)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: None.

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Full text of H-statements:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Aquatic Acute 3	Hazardous to the aquatic environment — Acute Hazard, Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Flam. Liq. 4	Flammable liquids, Category 4
Flam. Sol. 2	Flammable solids, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
Skin Sens. 1B	Sensitisation — Skin, category 1B
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
H226	Flammable liquid and vapour
H227	Combustible liquid
H228	Flammable solid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H371	May cause damage to organs
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

HMIS III Rating

- Health : 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability : 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal protection : B
B - Safety glasses, Gloves

SDS US (Berje) 5.2

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product