

NIAOULI OIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1.1. Identification

Name : NIAOULI OIL

CAS No : 8014-68-4

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

Plant Therapy, Inc

510 2nd Ave S.

Twin Falls, ID 83301

cs@planttherapy.com

www.planttherapy.com

1.4. Emergency telephone number

Emergency number : 1-800-917-6577

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 3	H226 -	Flammable liquid and vapor
Skin Irrit. 2	H315 -	Causes skin irritation
Skin Sens. 1	H317 -	May cause an allergic skin reaction
Asp. Tox. 1	H304 -	May be fatal if swallowed and enters airways
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

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GHS-US labelling



Hazard pictograms (GHS-US) :

Signal word (GHS-US) :

Hazard statements (GHS-US) :

Danger

H226 - Flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H401 - Toxic to aquatic life

Precautionary statements (GHS-US) :

H411 - Toxic to aquatic life with long lasting effects

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Explosion-free electrical equipment and lighting with earth

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P264 - Wash hands thoroughly after handling

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

P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician

P302+P352 - IF ON SKIN: Wash with plenty of soap and water

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

P321 - Specific treatment (see supplemental first aid instruction on this label)

P331 - Do NOT induce vomiting

P332+P313 - If skin irritation occurs: Get medical advice/attention

EN (English)

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P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

P362 - Take off contaminated clothing and wash before reuse

P362+P364 - Take off contaminated clothing and wash it 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

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
Eucalyptol	(CAS No) 470-82-6	50 - 65	Flam. Liq. 3, H226 Skin Sens. 1B, H317
alpha-Terpineol	(CAS No) 98-55-5	10 - 25	Skin Irrit. 2, H315 Aquatic Acute 3, H402
alpha-Pinene	(CAS No) 80-56-8	5 - 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304

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d-Limonene	(CAS No) 5989-27-5	5 - 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
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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	: Assure fresh air breathing. Allow the victim to rest.
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:
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. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries after inhalation	: May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.

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

No additional information available

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 vapor.
Explosion hazard	: May form flammable/explosive vapor-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 firefighting 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.
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6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

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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 vapors are flammable.

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 vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapors/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.

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

No additional information available

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

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 : Wear respiratory protection.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Colorless

Odor : characteristic

Odor threshold : No data available

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

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Flash point	: 120 °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
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: 0.92
Relative vapor density at 20 °C	: No data available
Solubility	: Water: Solubility in water of component(s) of the mixture: • alpha-Terpineol: 0.2 g/100ml • d-Limonene: insoluble
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 vapor. May form flammable/explosive vapor-air mixture.

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

Eucalyptol (470-82-6)

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LD50 oral rat	2480 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	2480.000 mg/kg bodyweight
alpha-Terpineol (98-55-5)	
LD50 oral rat	4300 mg/kg (Rat)
ATE US (oral)	4300.000 mg/kg bodyweight
d-Limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg bodyweight
ATE US (oral)	4400.000 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met
Carcinogenicity : Not classified

d-Limonene (5989-27-5)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : May be fatal if swallowed and enters airways.
Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation : May cause an allergic skin reaction.
Symptoms/injuries after skin contact : Causes skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.
Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

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

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)
alpha-Terpineol (98-55-5)	
LC50 fish 1	10 - 100 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
d-Limonene (5989-27-5)	
LC50 fish 1	720 µg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 1	0.36 mg/l (48 h; Daphnia magna; GLP)
LC50 fish 2	702 µg/l (96 h; Pimephales promelas)
Threshold limit algae 1	150 mg/l (72 h; Desmodesmus subspicatus; GLP)
Threshold limit algae 2	2.62 mg/l (72 h; Desmodesmus subspicatus)

12.2. Persistence and degradability

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NIAOULI OIL (8014-68-4)	
Persistence and degradability	May cause long-term adverse effects in the environment.
Eucalyptol (470-82-6)	
Persistence and degradability	Water: Not biodegradable.
alpha-Terpineol (98-55-5)	
Persistence and degradability	Readily biodegradable in water. easily degradable in the soil.
ThOD	2.90 g O ₂ /g substance
alpha-Pinene (80-56-8)	
Persistence and degradability	Not established.
d-Limonene (5989-27-5)	
Persistence and degradability	May cause long-term adverse effects in the environment. Readily biodegradable in water. Adsorbs into the soil.
ThOD	3.29 g O ₂ /g substance

12.3. Bioaccumulative potential

NIAOULI OIL (8014-68-4)	
Bioaccumulative potential	Not established.
Eucalyptol (470-82-6)	
Log Pow	1.84 (Calculated)
Bioaccumulative potential	Low bioaccumulation potential.
alpha-Terpineol (98-55-5)	
Log Pow	2.57 (Estimated value)
Bioaccumulative potential	Low bioaccumulation potential.
alpha-Pinene (80-56-8)	
Bioaccumulative potential	Not established.
d-Limonene (5989-27-5)	
BCF fish 1	864.8 - 1022 (Pisces; Fresh weight)
Log Pow	4.38 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 37 °C)
Bioaccumulative potential	Not established. Bioaccumulative potential.

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 vapors are flammable.
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.

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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

Transportation of Dangerous Goods

No additional information available

Transport by sea

UN-No. (IMDG) : 1169
Proper Shipping Name (IMDG) : EXTRACTS, AROMATIC, LIQUID
Class (IMDG) : 3 - Flammable liquids
Packing group (IMDG) : III - substances presenting low danger
MFAG-No : 127;128

Air transport

UN-No. (IATA) : 1169

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Proper Shipping Name (IATA) : Extracts, aromatic, liquid
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : III - Minor Danger
Civil Aeronautics Law : Flammable liquids

SECTION 15: Regulatory information

15.1. US Federal regulations

NIAOULI OIL (8014-68-4)

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

alpha-Terpineol (98-55-5)

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

d-Limonene (5989-27-5)

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

p-Cymene (99-87-6)

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.

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Other information

: None.

Full text of H-

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
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitization — Skin, Category 1
Skin Sens. 1B	Sensitization — Skin, category 1B
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
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

statements:

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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 (Plant Therapy) 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