1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

PRODUCT NAME: WORMWOOD OIL
BOTANICAL/CHEMICAL NAME: Artemisia absinthium
MOLECULAR WEIGHT: N/A
MOLECULAR FORMULA: N/A
CLP REFERENCE NUMBER N/A
REACH REGISTRATION NUMBER N/A
REACH PREREGISTRATION NUMBER N/A
APPLICATION OF THE SUBSTANCE: Raw material: Fragrance/flavor application
CAS No (TSCA) 8008-93-3
FEMA Number 3116

1.2 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

The Essential Oil Company
9225 SE 7the Ave.
Portland, Oregon 97212
503-872-8772

FOR FURTHER INFORMATION, PLEASE CONTACT:

E-mail address: Robert Seidel: robert@essentialoil.com

EMERGENCY TELEPHONE NUMBER

800-729-5912
2. HAZARDS IDENTIFICATION

Physical hazards Flammable liquids Category 4

Health hazards Acute toxicity, oral Category 4

Environmental hazards Hazardous to the aquatic environment, long-term hazard Category 3

Label elements

Label elements according to Directive 67/548/EEC or 1999/45/EC

Signal word Warning

Hazard statement

H227 Combustible liquid.
H302 Harmful if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
Classification system:
The classification is according to the latest editions of EU lists, and extended by company and literature data.

Additional Information:
See section 16 for the wordings of listed R-, S-phrases, H-statements and Hazard codes.

Emergency Overview

Precautionary Statements – Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed in workplace
Keep away from heat/sparks/open flames/hot surfaces. – No smoking

Precautionary Statements – Response
Specific treatment (see ? on this label)
If in eyes: 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
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF SWALLOWED: Immediately call POISON CENTER or doctor/physician
Do not induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements – Storage
Store locked up
Store in well-ventilated place. Keep cool

Precautionary Statements – Disposal
Dispose of contents/container to an approved disposal plant
3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Description:

Essential Oil; UVCB; Substance of biological origin with variable and partially unknown composition.

Hazard Impurities: Not Applicable

Content of R65 classified products: No

Dangerous components:

4. FIRST AID MEASURES

First aid measures for different exposure routes

General Advice If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or clothing

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Immediate medical attention is not required.

Inhalation Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Consult a physician. Immediate medical attention is not
required. Move to fresh air in case of accidental inhalation of vapors or decomposition products.

**Ingestion**

Do not induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

**Protection of first-aiders**

Use personal protective equipment

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**

May cause sensitization of susceptible persons. Treat symptomatically.

Symptoms of poisoning may even occur after several hours: therefore medical observation for at least 48 hours after accident

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**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Use: Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol-resistant foam.

**Unsuitable Extinguishing Media**

Do not use a solid water stream as it may scatter and spread fire.

**Specific hazards arising from chemical**

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

**Explosion Data**

<table>
<thead>
<tr>
<th>Sensitivity of Mechanical Impact</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity to Static Discharge</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**

Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharge.

**Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods and materials for containment and cleaning up**

**Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up. Take precautionary measures against static discharges.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**

Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Do not
breathe vapors or spray mist. Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and open flame. No smoking. Take necessary action to avoid static discharge (which might cause ignition of organic vapors).

**Conditions for safe handling**

**Technical measures/Storage Conditions**


**Incompatible products**

None known based on information supplied.

---

### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Control parameters**

**Exposure guidelines**

This product does not contain hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Exposure controls**

**Engineering measures**

Showers  
Eye wash stations  
Ventilation systems

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**

Tightly fitting goggles. Face-shield

**Skin and body protection**

Chemical resistant apron

**Respiratory protection**

If exposure limits are exceeded for irritation is experienced, NIOSH/MSHA approved respiratory
protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures
When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Remove and wash contaminated clothing before re-use.

Skin Protection
Eye Protection
Body Protection

Safety Gloves
Tight safety goggles
Protective Clothing

Respiratory Protection
Dust Mask

Environmental exposure controls
Prevent entry into drains, ground/surface water or sewerage system

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information On Basic Physical And Chemical Properties

Physical State @20°C
Liquid

Appearance
Dark green to brown

Odor
Characteristic

Odor Threshold
No information available

pH
No information available
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical Rotation</td>
<td>-12.8 to -13.2</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>No information available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>150°F (65°C)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.91 to 0.943 @25°C</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.4660 to 1.4770 at 25°C</td>
</tr>
<tr>
<td>Evaporation Rate VALUE</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammable Properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability limits in Air</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Pressure @20°C</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature °C</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No information available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>No information available</td>
</tr>
<tr>
<td>VOC Content</td>
<td>No information available</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
Not reactive, stable at room temperature

Chemical stability
Stable under recommended storage conditions

Possibility of hazardous reactions
Reactions with strong oxidizers

Conditions to avoid
Heat, flames and sparks

Incompatible materials
Avoid strong acids strong bases and all oxidizing agents

Hazardous decomposition products
No dangerous decomposition products expected by intended use

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
No adverse effects to inhalation are expected

Eye contact
Direct contact with the eyes may cause temporary irritation

Skin contact
No adverse effects to inhalation are expected

Ingestion
Harmful if swallowed

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LG50 inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wormwood Oil</td>
<td>No Data available</td>
<td>No Data available</td>
<td>No Data available</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure
<table>
<thead>
<tr>
<th>Category</th>
<th>Information Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitization</td>
<td>No information available</td>
</tr>
<tr>
<td>Mutagenic effects</td>
<td>No information available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific target organ systemic toxicity (single exposure)</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific target organ systemic toxicity (repeated exposure)</td>
<td>No information available</td>
</tr>
<tr>
<td>Chronic toxicity</td>
<td>Repeated exposure may cause allergic reactions in very susceptible persons. Avoid repeated exposure</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>No information available</td>
</tr>
<tr>
<td>CMR Effects</td>
<td>No information available</td>
</tr>
<tr>
<td>Carcinogen</td>
<td>No information available</td>
</tr>
<tr>
<td>Mutagen</td>
<td>No information available</td>
</tr>
<tr>
<td>Reprotoxic</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**Exposure Limits**

Note: There is a blanket recommendation of 10 mg/m3 for inspirable dusts or mists when limits have not otherwise been established
12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a marine pollutant according to DOT

Ecotoxicity

Harmful to aquatic life with long lasting effects

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wormwood Oil</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Persistence and degradability

No information available

Bioaccumulation

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste disposal methods

Dispose of in accordance with local regulations

Contaminated packaging

Do not re-use empty containers

Recommenadations:

Empty contaminated packing thoroughly as they may be recycled.

Moistened solids to be disposed of adhering to necessary technical regulations after consulting concerned authorities
14. TRANSPORTATION INFORMATION

**DOT**

**BULK PACKAGING**

Marine Pollutant  No

**DOT**

**NON BULK PACKAGING**

Marine Pollutant  No

**IMDG/IMO**

UN Number  NA1993

Proper shipping name  COMBUSTIBLE LIQUID. N.O.S. (WORMWOOD OIL)

Hazard Classification  3

Packaging Group  III

Marine Pollutant  No

**ADR/IMDG/IATA Labels:**

Special precautions for users:

Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before re-use. Prevent entry into drains, ground/surface water or sewerage system.
### 15. REGULATORY INFORMATION

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.


Not listed.

**SARA 304 Emergency release notification**

Not regulated.


Not listed.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard - Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactivity Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous**

Yes

**SARA 313 (TRI reporting)**

Not regulated.
Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
Not regulated.
US. New Jersey Worker and Community Right-to-Know Act
Not listed.
US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.
US. Rhode Island RTK
Not regulated.
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

International Inventories

Australia Australian Inventory of Chemical Substances (AICS) Yes
Canada Domestic Substances List (DSL) Yes
Canada Non-Domestic Substances List (NDSL) No
China Inventory of Existing Chemical Substances in China (IECSC) Yes
Europe European Inventory of Existing Commercial Chemical Substances (EINECS) No
Europe European List of Notified Chemical Substances (ELINCS) No
Japan Inventory of Existing and New Chemical Substances (ENCS) No
Korea Existing Chemicals List (ECL) Yes
New Zealand New Zealand Inventory Yes
Philippines Philippine Inventory of Chemicals and Chemical Substances (PICCS) Yes
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).
# 16. OTHER INFORMATION

## Relevant R – and S phrases

<table>
<thead>
<tr>
<th>R</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10</td>
<td>FLAMMABLE.</td>
</tr>
<tr>
<td>R38</td>
<td>IRRITATING TO SKIN.</td>
</tr>
<tr>
<td>R43</td>
<td>MAY CAUSE SENSITIZATION BY SKIN CONTACT.</td>
</tr>
<tr>
<td>R65</td>
<td>HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.</td>
</tr>
<tr>
<td>R50/53</td>
<td>VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.</td>
</tr>
<tr>
<td>S24</td>
<td>AVOID CONTACT WITH SKIN.</td>
</tr>
<tr>
<td>S61</td>
<td>AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEET.</td>
</tr>
<tr>
<td>S62</td>
<td>IF SWALLOWED, DO NOT INDUCE VOMITTING: SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.</td>
</tr>
</tbody>
</table>

## Relevant H-, P – Statements and Hazard Codes

<table>
<thead>
<tr>
<th>H227</th>
<th>COMBUSTIBLE LIQUID AND VAPOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>HARMFUL IF SWALLOWED</td>
</tr>
<tr>
<td>H412</td>
<td>HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS</td>
</tr>
<tr>
<td>P210</td>
<td>KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. NO SMOKING.</td>
</tr>
<tr>
<td>P264</td>
<td>WASH THOROUGHLY AFTER HANDLING</td>
</tr>
<tr>
<td>P270</td>
<td>DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT</td>
</tr>
<tr>
<td>P273</td>
<td>AVOID RELEASE TO THE ENVIRONMENT</td>
</tr>
<tr>
<td>P280</td>
<td>WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION</td>
</tr>
<tr>
<td>P301+312</td>
<td>IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN</td>
</tr>
<tr>
<td>P330</td>
<td>RINSE MOUTH</td>
</tr>
</tbody>
</table>
IN CASE OF FIRE: USE APPROPRIATE MEDIA TO EXTINGUISH

STORE IN A WELL VENTILATED PLACE. KEEP COOL

DISPOSE OF CONTENTS/CONTAINER TO ... (IN ACCORDANCE WITH LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATION)

Revision Date 6/28/16

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 this 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