1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Ginger Organic Essential Oil
Botanical name: Zingiber officinale
INCI name: Zingiber Officinale Root Oil
CAS #: 8007-08-7
Country of Origin: Sri Lanka
Product use: Domestic and Industrial
Supplier: New Directions Aromatics Inc.
Address: 6781 Columbus Road, Mississauga, Ontario, CANADA L5T 2G9
Fax: 905-362-1926
Telephone number: 905-362-1915
Emergency phone number: (613)-996-6666 CANUTEC 24 HOUR EMERGENCY

2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Classification
Flammable liquids - Category 3
Aspiration Hazard- Category 1
Skin corrosion/irritation - Category 2
Skin Sensitization - Category 1
Serious eye damage/eye irritation - Category 2A
Hazardous to the aquatic environment - Chronic- Category 2

GHS Label elements, including precautionary statements

Signal: Danger

Hazard statement(s)
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long-lasting effects.

Precautionary statement(s)
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 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352 IF ON SKIN: Wash with plenty of water.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P321 Specific treatment (see section 4 on this label).
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use appropriate fire extinguisher to extinguish.
P391 Collect spillage.
P403+P235 Store in a well ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container according to local regulations.

Other Info

3. COMPOSITION / INFORMATION INGREDIENTS

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CAS NO</th>
<th>EC NO</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>beta-Sesqui Phellandrene</td>
<td>-</td>
<td>-</td>
<td>3.00 - 9.00 %</td>
</tr>
<tr>
<td>ar-Curcumene + beta-Zingibarene</td>
<td>-</td>
<td>-</td>
<td>18.00 - 22.50 %</td>
</tr>
<tr>
<td>alpha-Zingibarene</td>
<td>-</td>
<td>-</td>
<td>29.00 - 35.00 %</td>
</tr>
<tr>
<td>Bisabolene</td>
<td>-</td>
<td>-</td>
<td>4.00 - 9.00 %</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact
Immediately flush eyes with plenty of cool water for at least 15 minutes. Get medical attention if irritation occurs.

Skin contact
Remove contaminated clothing. Wash area with soap and water. If irritation occurs, get medical attention.

**Inhalation**

If inhaled, removed to fresh air. Get medical attention if symptoms appear.

**Ingestion**

Seek medical attention or contact local poison control center.

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### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media**


**Unsuitable extinguishing media**

Water spray, water jet.

**Special protective equipment and precautions for fire-fighters**

Wear proper protective equipment. Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

**Special hazards arising from the substance or its combustible products**

Hazardous decomposition products may be formed at extreme heat or if burned.

**Resulting gases**

Carbon oxides.

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### 6. ACCIDENTAL RELEASE MEASURES

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

Equip clean crew with proper protection. Respiratory protection equipment may be necessary.

**Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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

Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers.

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### 7. HANDLING AND STORAGE

**Precautions for safe handling**

No direct lighting. No smoking. Ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety procedures.

**Conditions for safe storage, including any incompatibilities**

Provide local exhaust or general room ventilation to minimize dust and/or vapour concentrations. Keep container closed when not in use.

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### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure controls**

Provide adequate ventilation. Respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

**Eyes**

Use tightly sealed goggles.

**Skin**

If skin contact or contamination of clothing is likely, protective clothing should be worn. Use protective gloves.
Respiratory
In case of insufficient ventilation, wear suitable respiratory equipment.

Ingestion
Not for ingestion.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pale yellow to yellow liquid.</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic spicy, somewhat pungent ginger odor.</td>
</tr>
<tr>
<td>Flash point</td>
<td>54.4 °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.8680 to 0.8830 @ 30 °C</td>
</tr>
<tr>
<td>Solubility (ies)</td>
<td>Miscible in fat soluble organic solvents and fatty oils. Insoluble in water.</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.4840 to 1.4920 @ 25 °C</td>
</tr>
<tr>
<td>Optical rotation</td>
<td>-45° to -29° @ 27 °C</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
This material presents no significant reactivity hazard.

Chemical stability
Chemically stable.

Possibility of hazardous reactions
Hazardous polymerization will not occur.

Conditions to avoid
Avoid sparks, flame and other heat sources.

Incompatible materials
Strong acids, strong alkalies and oxidizing agents.

Hazardous decomposition products
Carbon monoxide and unidentified organic compounds may be formed during combustion.

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Oral/Parental Toxicity:
Oral-rat LD50 >5000mg/kg
Oral-mouse LD50 3450mg/Kg
Dermal Toxicity:
skin-rabbit LD50 >5000mg/Kg
skin-rabbit LD50 >5000mg/Kg

Carcinogenicity
None of the components of this material are listed as a carcinogen.

Chronic toxicity
May cause allergic reactions on skin.

Reproductive toxicity
No adverse effects on reproduction are known.

Inhalation
Inhalation of high concentrations of vapor may result in irritation of eyes, nose and throat, headache, nausea, and dizziness.
Skin contact
Adverse skin effects should be prevented by normal care and personal hygiene.

Eye contact
Possible irritation should be prevented by wearing safety glasses.

Ingestion
Low order toxicity causing irritation of the stomach and intestines which results in nausea and vomiting

12. ECOLOGICAL INFORMATION

Ecotoxicity
Aquatic toxicity: Quantitative data on the ecological effect of this product is not available.
Remarks: Do not allow to enter water, waste water or soil.
Toxic to aquatic organisms.

Persistence and degradability
Sensitivity to air, light, Oxidizing agent, Acid and Alkali however long term degradation product may arise.

Bio - accumulative potential
This product is unlikely to accumulate in the environment.

Mobility in soil
Some little portion dissolves in the water and moves.

Other adverse effects
Not available.

13. DISPOSAL CONSIDERATION

Dispose of product in accordance with local, state or provincial and federal regulations. Check with local municipal authority to ensure compliance.

14. TRANSPORT INFORMATION

UN Number
3082

UN proper shipping name
Environmentally Hazardous Substance, liquid, n.o.s. (Ginger Oil)

Transport hazard class
9

Packing group
III

US DOT Shipping Description (Land)
3082

Proper shipping name
Environmentally Hazardous Substance, liquid, n.o.s. (Ginger Oil)

Class
9

Packaging group
III

IMO-IMDG Shipping Description (Sea)
3082

Proper shipping name
Environmentally Hazardous Substance, liquid, n.o.s. (Ginger Oil)

**Class**
9

**Packaging group**
III

**IMDG-Marine pollution**
Yes.

**IATA Shipping Description (Air)**
3082

**Proper shipping name**
Environmentally Hazardous Substance, liquid, n.o.s. (Ginger Oil)

**Class**
9

**Packaging group**
III

### 15. REGULATORY INFORMATION

**SARA 313**
None.

**California Proposition 65**
This product does not contain chemicals listed per the Safe Drinking Water and Enforcement Act of 1986.

**GHS Hazard Statements**
Please refer to section 2.

**GHS Precautionary Statements**
Please refer to section 2.

### 16. OTHER INFORMATION

**Revision date** :  August 31, 2018

**Disclaimer & Caution**

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