SAFETY DATA SHEET (SDS)

Essential Oil: Ginger, Fresh - Organic
SDS Created: 10 June 2015
Revision Date: May 14 2019

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

1.1 Globally Harmonized System (GHS) product identifier
Product name: Ginger, Fresh - Organic
Latin name of botanical source: Zingiber officinale
INCI Name: Zingiber Officinale (Ginger) Root Oil

1.2 Other means of identification
Item number/size: 400 – Various sizes not to exceed 33.81 Fluid Ounces or 1 Liter.

1.3 Recommended use of the chemical and restrictions on use:
Aromatherapy, natural perfumery, as recommended. This product is Generally Recognized as Safe (GRAS) for human consumption by the FDA. PLEASE NOTE: As our customer, if you choose to ingest any of our products, please know that we can take no responsibility for any unintended adverse effects.

1.4 Supplier’s details:
Company name: Eden Botanicals
Company address: 3820 Cypress Drive, Suite 12, Petaluma, CA 94954
Company contact: 707-509-0041 www.edenbotanicals.com

1.5 Emergency telephone number:
For Transport Emergencies Only: 1-855-645-6677 (available 9:00 am - 5:00 pm, Pacific Standard Time)
Poison Control Center: 1-800-222-1222 (available 24 hours)

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
Skin Sens., Category 1
Eye irrit., Category 2
Asp. Tox., Category 1
Aquatic Chronic, Category 2

2.2 GHS label elements, including precautionary statements

<table>
<thead>
<tr>
<th>Signal Word</th>
<th>Hazardous Statement</th>
<th>Precautionary Statement</th>
<th>Hazard Pictograms</th>
</tr>
</thead>
</table>

ITEM 400: Ginger, Fresh - Organic
2.3 Other hazards that do not result in classification
May cause skin irritation/allergy. Patch test recommended.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Composition

<table>
<thead>
<tr>
<th>Chemical Name (common name)</th>
<th>CAS#</th>
<th>EC (EINECS)#</th>
<th>ICSC #</th>
<th>RTECS#</th>
<th>UN#</th>
<th>% by weight</th>
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<tbody>
<tr>
<td>Ginger Oil</td>
<td>84696-15-1</td>
<td>283-634-2</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>100 %</td>
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<tr>
<td>EU Allergens:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Citral</td>
<td>5392-40-5</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;= 9.5 %</td>
</tr>
<tr>
<td>Limonene</td>
<td>138-86-3</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;= 3.00%</td>
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<tr>
<td>Linalool</td>
<td>78-70-6</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;= 1.00 %</td>
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<tr>
<td>Geraniol</td>
<td>106-24-1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;= 1.00 %</td>
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<tr>
<td>Citronellol</td>
<td>106-22-9</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;= 1.00 %</td>
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<tr>
<td>Farnesol</td>
<td>4602-84-0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;= 1.00 %</td>
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<tr>
<td>Prop 65:</td>
<td></td>
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<tr>
<td>Beta-Myrcene</td>
<td>123-35-3</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;= 3%</td>
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</table>

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary first-aid measures (of Substance)

Eye contact: Check for and remove any contact lenses. Flush with water for 15 minutes. If symptoms persist get medical attention.

Skin Contact: No harmful effect with normal skin. If skin irritation does occur, wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

Inhalation: Not likely to occur under normal conditions of use. If symptoms occur, move to fresh air and obtain medical advice.

Ingestion: Not an expected route of exposure. In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with milk or water and consult a doctor. Keep the exposed person at rest. Do NOT force vomiting unless directed to do so by medical personnel. Seek immediate medical attention and show the Substance’s label to medical personnel.

4.2 Most important symptoms and effects, both acute and delayed (of Substance)

Eye contact: May cause eye irritation and corneal damage if not immediately rinsed out.

Skin Contact: Repeated contact may cause allergic dermatitis.

Inhalation: Breathing high concentrations of vapor may cause anesthetic effects.

Ingestion: Not an expected route of exposure.

4.3 Indication of any immediate medical attention and special treatment needed (of Substance)
None known.
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Flash point
+64°C

5.2 Extinguishing media
Suitable extinguishing media: sprayed water or water mist, alcohol-resistant foam, multipurpose ABC powder, BC powder, carbon dioxide (CO2)
Unsuitable extinguishing media: water jet (straight stream).

5.3 Specific hazards arising from the chemical
Possible production of toxic fumes in case of fire.

5.4 Special protective actions for firefighters
Use self-contained breathing apparatus and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid all flammable sources. Ventilate premises. Do not smoke.
For fire-fighters:
Fire-fighters will be equipped with suitable personal protective equipment (See Section 8). High temperature may increase the pressure inside the container—cool the container by sprinkling water. Avoid breathing emitted vapors.

6.2 Environmental precautions
Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, or diatomaceous earth in drums for waste disposal. Avoid allowing product to reach sewage system or any waterways. Inform respective authorities in case of seepage into sewage system or waterways.

6.3 Methods and material for containment and cleaning up
Absorb spill with non-combustible matter (such as detergent--do not use solvents) and transfer to containers.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid unintentional contact with skin surfaces. Wear suitable protective clothing. Avoid inhalation. Ensure good ventilation or exhaust in workplace. Do not allow contact with eyes. Always wash hands after handling. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

7.2 Conditions for safe storage, including any incompatibilities
Store in closed glass containers, away from heat, light and other sources of ignition. Store in cool area.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters
OSHA TWA: None established
OSHA STEL: None established
ACGIH TWA: None established
ACGIH STEL: None established
NOHSC TWA: None established
NOHSC STEL: None established

8.2 Appropriate engineering controls
General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code.

8.3 Individual protection measures
Personal protective equipment:
Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place away from the work area. Never eat, drink, or smoke during use. Remove and wash contaminated clothing before re-using.

**Eye/face protection:**
Avoid contact with eyes. Use eye protectors (safety goggles in accordance with standard EN166) designed to protect against liquid splashes.

**Hand protection:**
Wear suitable protective gloves (resistant to chemical agents in accordance with standard EN374) in the event of prolonged or repeated skin contact.

Type of gloves recommended: Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR)) or PVA (Polyvinyl alcohol).

**Body protection:** Work clothing worn by personnel shall be laundered regularly. After contact with the product, all parts of the body that have been soiled must be washed.

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**SECTION 9: PHYSICAL CHEMICAL PROPERTIES**

**Physical state:** Transparent mobile liquid

**Color:** Pale yellow to brown

**Odor:** Sweet, warm, earthy, fresh, slightly tart undertone

**Miscibility in water:** Insoluble

**Miscibility in alcohol:** Not specified

**Miscibility in essential oil:** Not specified

**Liposolubility:** Not specified

**pH:** Not applicable

**Boiling point/boiling range:** Not specified

**Flash Point:** +64°C

**Vapor pressure:** Not specified

**Evaporation rate:** Not specified

**Density:** Not specified

**Water solubility:** Insoluble

**Self-ignition temperature:** Not specified

**Partition coefficient:** Not specified

**Refractive index @ 20°C:** 1.485 – 1.492

**Specific gravity @ 20°C:** 0.872 – 0.894

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**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity**
Not reactive.

**10.2 Chemical stability**
This substance is stable under the recommended handling and storage conditions in Section 7.

**10.3 Possibility of hazardous reactions**
According to our knowledge none in normal use.

**10.4. Conditions to avoid**
Do not hear to high temperature. Do not expose sealed containers to sun. Keep away from sources of ignition.

**10.5 Incompatible materials**
P.V.C.

**10.6 Hazardous decomposition products**
No decomposition if used as directed.
SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Substance

Acute toxicity:
Oral route (rat): LD50 = 5000 mg/kg
Dermal route (rabbit): LD50 = 5000 mg/kg.

Skin corrosion/irritation:
May be irritating to skin.

Serious eye damage/irritation:
May be irritating to eyes. Prompt rinsing and removal of the substance will avoid damage.

Respiratory sensitization:
Breathing high concentrations of vapor may cause anesthetic effects.

Germ cell mutagenicity:
No significant effects or critical hazards.

Carcinogenicity:
IARH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity:
Not specified

STOT-single exposure:
Not specified

STOT-related exposure:
Not specified

Aspiration hazard:
Not specified

11.2 Information on the likely routes of exposure
Skin/scalp contact.

11.3 Symptoms related to the physical, chemical, and toxicological characteristics
None known. Irritation of the eye if exposed. Redness of the skin if irritated.

11.4 Delayed and immediate effects and also chronic effects from short-term and long-term exposure
Not specified

11.6 Interactive effects
Not specified

11.7 Where specific chemical data are not available
Not specified

11.8 Substances
Not specified

11.9 Substances verses ingredient information
Not specified

11.10 Other Information
None
SECTION 12: ECOLOGICAL INFORMATION

12.1 Info summery of Ecological information
Balance of data on substance as a whole, not determined.

12.2 Eco toxicological properties of specific substances
See each category below for specific substances

12.3 Toxicity
Acute fish toxicity:
LC50 / 96 HOUR – No data available
Toxicity to aquatic plants – No data available
Toxicity to microorganisms – No data available
Toxicity threshold – No data available

12.4 Persistence and degradability
Biodegradation is expected

12.5 Bio-accumulative potential
Bioaccumulation is unlikely

12.6 Mobility in soil
Unknown

12.7 Other adverse affect
Avoid exposure to marine environments and waterways

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Do not pour into drains or waterways. Observe all federal, state, and local environmental regulations. Member State-specific and Community-specific provisions must be considered. Considering the relevant known environmental and human health hazards of the materials, review and implement appropriate technical and procedural wastewater and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental release. This may include destructive techniques for waste and wastewater. In extreme situations, contact a licensed professional waste disposal service to dispose of this material.

Waste:
Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC. Do not pour into drains or waterways. Waste management is carried out without endangering human health, without harming the environment, and in particular without risk to water, air, soil, plants, or animals. Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Soiled packaging:
Empty all containers completely. Keep label(s) on every container. Give to a certified disposal contractor.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number
Not regulated

14.2 UN Proper shipping name
N/A

14.3 Transportation hazard classes
N/A

14.4 Packing group, if applicable
N/A
14.5 Environmental hazards
Substance not determined. Avoid exposure to waterways.

14.6 Special precautions for user
Not specified

14.7 Transport in bulk according to Annex II of MARPOL 73/78˚ and IBC Code
Not specified

14.8 Additional transport information
Not specified

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health, and environmental regulations/legislation specific for the substance

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<thead>
<tr>
<th>Country</th>
<th>Notification</th>
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<td>Canada</td>
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<tr>
<td>EU</td>
<td>See EU Allergens in Section 3</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Not regulated</td>
</tr>
<tr>
<td>Singapore</td>
<td>Not regulated</td>
</tr>
<tr>
<td>USA</td>
<td>California Prop. 65 Components</td>
</tr>
<tr>
<td></td>
<td>This contains chemicals known to the State of California to cause cancer, birth defects, and/or reproductive harm. See Section 3 for details.</td>
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SECTION 16: OTHER INFORMATION

Disclaimer:
The information in this Safety Data Sheet (SDS) is believed to be accurate as of the date issued. HOWEVER, NO WARRANTY, EXPRESSED OR IMPLIED IS MADE CONCERNING THE ACCURACY, COMPLETENESS OR RELIABILITY OF THE INFORMATION PROVIDED HEREIN, INCLUDING BUT NOT LIMITED TO, WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR COURSE OF PERFORMANCE. The information provided relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Since the conditions and methods of handling, storage, use and disposal of the product are beyond the control of Intelligent Nutrients, Intelligent Nutrients expressly disclaims any and all liability, loss or damage arising out of or relating to the use, storage, handling or disposal of the product or reliance on the information in this SDS. Users are cautioned to satisfy themselves as to the suitability of said information, procedures and recommendations for the purposes intended prior to use.

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<th>Prepared By</th>
<th>Reviewed By</th>
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<td>R.1</td>
<td>10 June 2015</td>
<td>H. Merrill</td>
<td>K. Goelz</td>
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<td>R.2</td>
<td>24 August 2015</td>
<td>H. Merrill</td>
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<td>R.3</td>
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<td>C. Berryhill</td>
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<td>May 14 2019</td>
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