SAFETY DATA SHEET
SDS DATE 05/24/18

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product Identifier

PRODUCT NAME: PURE GINGER EXTRACT (ALL BRANDS & FOLDS)

MANUFACTURER: OliveNation LLC
ADDRESS: 50 Terminal St, Bldg 2, 7th Floor, Charlestown MA 02129
PHONE: 781-989-2033

Recommended Use
Food and beverage flavoring

1.4 Emergency Telephone Number
Emergency Telephone: Chemtrec 1-800-424-9300 for US/ 703-527-3887 outside US

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Acute aquatic toxicity Category 3
Flammable liquids Category 3

Classification according to EU Directives 67/548 EEC or 1999/45/EC
For the full text of the R-phrases mentioned in this Section, see Section 16

Hazard Statements
H402 - Harmful to aquatic life
H226 - Flammable liquid and vapor

Precautionary Statements
P370 + P378 – In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P210 – Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

3.1. Substances

Product contains ethanol at a percentage below the cut off concentration limit and does not present a health risk

3.2 Mixture

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion: Clean mouth with water and drink afterwards plenty of water.

Inhalation: Move to fresh air.

4.2 Most important symptoms and effects, both acute and delayed

Abdominal pain.
Confusion, slurred speech.
Internal (stomach and intestinal) bleeding.
Slowed breathing.
Stupor (decreased level of alertness), even coma.
Unsteady walking.
Vomiting, sometimes bloody.
Chronic alcohol overuse can lead to additional symptoms and multiple organ failure.

4.3 Indication of any immediate medical attention and special treatment needed

Seek immediate medical attention if any of the above symptoms are present.

Note to physicians Treat symptomatically

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use alcohol-resistant foam.

Extinguishing media which shall not be used for safety reasons
No information available

5.2 Special Hazards arising from the substance or mixture

Special Hazard
None

5.3 Advice for firefighters

Special protective equipment for fire-fighters
As in any fire, wear self-contained breathing apparatus and full protective gear

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
See Section 12 for additional Ecological information.

6.2 Environmental precautions

Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits

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

Derived No Effect level (DNEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2 Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye Protection

Tightly fitting safety goggles

Hand Protection

Protective gloves

Skin and Body Protection

Long sleeved clothing

Respiratory Protection

When workers are facing concentrations above the exposure limit, they must use appropriate certified respirators

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice

Environmental Exposure Controls

No information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Liquid</th>
<th>Ginger</th>
</tr>
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<tbody>
<tr>
<td>Melting/freezing point</td>
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<tr>
<td>Boiling point/Boiling range</td>
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<tr>
<td>Flash point (closed cup)</td>
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<td>Evaporation rate</td>
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<td>Flammability (solid/gas)</td>
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<tr>
<td>Flammability limits in air</td>
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<tr>
<td>Upper flammability limit</td>
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<td>Lower flammability limit</td>
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<tr>
<td>Relative density</td>
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</tbody>
</table>

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Supersedes Rev. #2

Revised By: Margaret Kobel

Approved By: Senior Management
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Specific gravity @ 25°C: No information available
Specific gravity @20°C: No information available
Refractive index: No information available
Water solubility: No information available
Partition coefficient: n-octanol/water: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Viscosity, dynamic: No information available
Explosive properties: No information available
Oxidizing properties: No information available

9.2 Other information

VOC Content(%) 50%
Molecular weight: No information available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
The product is non-reactive.

10.2 Chemical Stability
The product is stable under normal pressures and temperatures.

10.3 Possibility of Hazardous Reactions
No known hazardous reactions.

10.4 Conditions to Avoid
Heat, flames, and sparks

10.5 Incompatible Material
No materials to be especially mentioned

10.5 Hazardous Decomposition Products
None under normal use conditions

SECTION 11: TOXICOLOGY INFORMATION

11.1 Information of toxicological effects
The following values are calculated based on chapter 3.1 of the GHS document (Rev. 1, 2005)

Acute toxicity There is no data available for this product
Inhalation There is no data available for this product
Eye contact There is no data available for this product
Skin contact Symptoms include: Abdominal pain.
Ingestion Confusion, slurred speech.
Internal (stomach and intestinal) bleeding.
Slowed breathing.
Stupor (decreased level of alertness), even coma.
Unsteady walking.
Vomiting, sometimes bloody.
Chronic alcohol overuse can lead to additional symptoms and multiple organ failure.

Acute toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity

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11.2 Inhalation
Skin corrosion/irritation No information available
Eye damage/irritation No information available
Sensitization No information available
Germ Cell Mutagenicity No information available
Carcinogenicity No information available
Specific target organ systemic toxicity (single exposure) No information available
Specific target organ systemic toxicity (repeated exposure) No information available
Target Organ Effects Blood, Central nervous system, Eyes, Liver, Reproductive system, Respiratory system, Skin
Aspiration hazard No information available

11.3 Carcinogen Reports
Not listed as a carcinogenic substance by the National Toxicology Program or has been found to be a potential carcinogen in the International Agency for Research on Cancer Monographs.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity:
Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

12.2 Persistence and Degradability
No information available

12.3 Bioaccumulative Potential
No information available

12.4 Mobility in Soil
No information available

12.5 Results of PBT and vPvB
No information available

12.6 Other Adverse Effects
No information available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:
Waste from residues/unused products: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal
SECTION 14: TRANSPORT INFORMATION

DOT
Proper shipping Name: EXTRACT, FLAVORING, LIQUID
Class: 3
UN/ID No: 1197
Packing Group: III

ICAO/IATA
UN/ID No: 1197
Proper Shipping Name: EXTRACT, FLAVORING, LIQUID
Class: 3
Packing Group: III
ERG Code: 127

SECTION 15: OTHER REGULATORY INFORMATION

Federal and State Regulations:
California Prop 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning statute: Ethyl Alcohol 190 Proof California prop 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Organic Ethyl Alcohol 190 Proof California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute. Organic Ethyl alcohol 190 proof Rhode Island RTK hazardous substances: Organic Ethyl Alcohol 190 Proof Pennsylvania RTK: Organic Ethyl Alcohol 190 Proof Florida: Organic Ethyl Alcohol 190 Proof Massachusetts RTK Organic Ethyl Alcohol 190 Proof New Jersey: Organic Ethyl Alcohol 190 Proof TSCA 8(b) inventory: Organic Ethyl Alcohol 200 proof.


WHMIS (Canada): Class B-2: Flammable liquid with a flash point lower than 37.8 deg C (100 deg F)

DSCL (EEC):
R11 Highly Flammable. S2-Keep out of reach of children

National Fire Protections Association (USA):
Health: 0
Flammability: 3
Reactivity: 0
Specific Hazard: None

Protective Equipment:
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.
SECTION 16: OTHER INFORMATION

References: Not available

Other special Considerations: Not available

Created: 01/03/2015
Last updated: 05/24/2018

Revision Note: Not applicable.

Warning/Disclaimer: The ingredient(s) has not been tested, nor has it been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes or other similar devices (collectively 'E-cigarettes'). In supplying this ingredient, OliveNation./Cook Flavoring Company instructs and by receiving this ingredient recipient confirms, that this ingredient will not be used in connection with the manufacture and distribution of E-cigarettes or any component thereof.

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