1 Identification

· Product identifier

· Trade name: MALT FLAVOR NAT.

· Article number: 53.702

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier: OliveNation LLC
    50 Terminal Street
    Bldg. 2, Ste. 712
    Charlestown, MA 02129
  · Information department: Regulatory department
  · Emergency telephone number:
    During normal opening times: Call Chemtrec Day or Night
    Domestic North America 800.424.9300/International 703.527.3887 (Collect calls accepted)

2 Hazard(s) identification

· Classification of the substance or mixture

  - GHS02 Flame
    Flam. Liq. 3 H226 Flammable liquid and vapor.

  - GHS07
    Skin Irrit. 2 H315 Causes skin irritation.
    STOT SE 3 H335 May cause respiratory irritation.
    Eye Irrit. 2B H320 Causes eye irritation.

· Label elements

· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms

  - GHS02
  - GHS07

· Signal word Warning
Trade name: MALT FLAVOR NAT.

- **Hazard-determining components of labeling:**
  ethyl alcohol

- **Hazard statements**
  Flammable liquid and vapor.
  Causes skin and eye irritation.
  May cause respiratory irritation.

- **Precautionary statements**
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  IF in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Call a poison center/doctor if you feel unwell.
  Specific treatment (see on this label).
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  Take off contaminated clothing and wash it before reuse.
  In case of fire: Use for extinction: CO2, powder or water spray.
  Store in a well-ventilated place. Keep container tightly closed.
  Store in a well-ventilated place. Keep cool.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

  - **NFPA ratings (scale 0 - 4)**
    
    Health = 1  
    Fire = 3  
    Reactivity = 0

  - **HMIS-ratings (scale 0 - 4)**
    
    Health = 1  
    Fire = 3  
    Reactivity = 0
Trade name: MALT FLAVOR NAT.

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>57-55-6 PROPYLENE GLYCOL</td>
<td>50-100%</td>
</tr>
<tr>
<td>64-17-5 ethyl alcohol</td>
<td>25-50%</td>
</tr>
</tbody>
</table>

- Flam. Liq. 2, H225; Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320

4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact:
  - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  - If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.
6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
· Environmental precautions:
  Dilute with plenty of water.
  Do not allow to enter sewers/surface or ground water.
· Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Ensure adequate ventilation.
· Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

· Handling:
· Precautions for safe handling
  No special precautions are necessary if used correctly.
· Information about protection against explosions and fires:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
· Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles:
  Store in tightly sealed containers in a cool, dry place that is well ventilated. Away from heat, spark, and open flame.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions:
  Keep container tightly sealed.
· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.
· Control parameters
· Components with limit values that require monitoring at the workplace:
  57-55-6 PROPYLENE GLYCOL
  WEEL | Long-term value: 10 mg/m³
Trade name: MALT FLAVOR NAT.

<table>
<thead>
<tr>
<th>64-17-5 ethyl alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong> Long-term value: 1900 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td><strong>REL</strong> Long-term value: 1900 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td><strong>TLV</strong> Short-term value: 1880 mg/m³, 1000 ppm</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

  - **General protective and hygienic measures:**
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes.
    - Avoid contact with the eyes and skin.

- **Breathing equipment:**
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  
  Tightly sealed goggles
### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Appearance</td>
<td>Fluid</td>
</tr>
<tr>
<td>· Color</td>
<td>According to product specification</td>
</tr>
<tr>
<td>· Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>· Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>· pH-value</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Change in condition</td>
<td></td>
</tr>
<tr>
<td>· Melting point/Melting range</td>
<td>Undetermined</td>
</tr>
<tr>
<td>· Boiling point/Boiling range</td>
<td>Undetermined</td>
</tr>
<tr>
<td>· Flash point</td>
<td>24 °C (75.2 °F)</td>
</tr>
<tr>
<td>· Flammability (solid, gaseous)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>· Ignition temperature</td>
<td></td>
</tr>
<tr>
<td>· Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Auto igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>· Danger of explosion</td>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
<tr>
<td>· Explosion limits</td>
<td></td>
</tr>
<tr>
<td>· Lower</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Upper</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Vapor pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Density at 20 °C (68 °F):</td>
<td>0.93995 g/cm³ (7.84388 lbs/gal)</td>
</tr>
<tr>
<td>· Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Vapor density</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Solubility in / Miscibility with Water</td>
<td>Fully miscible</td>
</tr>
<tr>
<td>· Partition coefficient (n-octanol/water)</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Viscosity</td>
<td></td>
</tr>
<tr>
<td>· Dynamic</td>
<td>Not determined</td>
</tr>
<tr>
<td>· Kinematic</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

(Contd. on page 7)
Trade name: MALT FLAVOR NAT.

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Irritant

- Carcinogenic categories
- IARC (International Agency for Research on Cancer)
  64-17-5 ethyl alcohol

- NTP (National Toxicology Program)
  None of the ingredients is listed.
Trade name: MALT FLAVOR NAT.

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  Water hazard class 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
  PBT: Not applicable.
  vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
- DOT, IMDG, IATA: UN1197
- UN proper shipping name
  - DOT: Extracts, flavoring, liquid
  - IMDG, IATA: EXTRACTS, FLAVOURING, LIQUID
### Transport hazard class(es)

#### DOT

- **Class**: 3 Flammable liquids
- **Label**: 3

#### IMDG, IATA

- **Class**: 3 Flammable liquids
- **Label**: 3

#### Packing group

- **DOT, IMDG, IATA**: III

#### Environmental hazards:

Not applicable.

#### Special precautions for user

- **Warning**: Flammable liquids
- **Danger code (Kemler)**: 30
- **EMS Number**: F-E,S-D
- **Stowage Category**: A

#### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

#### Transport/Additional information:

##### DOT

- **Quantity limitations**
  - On passenger aircraft/rail: 60 L
  - On cargo aircraft only: 220 L

##### IMDG

- **Limited quantities (LQ)**: 5L
- **Excepted quantities (EQ)**
  - Code: E1
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 1000 ml

##### UN "Model Regulation"

- **UN 1197 EXTRACTS, FLAVORING, LIQUID, 3, III**

(Contd. on page 10)
## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    None of the ingredients is listed.
  - **Section 313 (Specific toxic chemical listings):**
    None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act) (Substances not listed):**
  All ingredients are listed.
- **TSCA new (21st Century Act) (Substances not listed)**
- **Proposition 65**
- **Chemicals known to cause cancer:**
  None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for females:**
  None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males:**
  None of the ingredients is listed.
- **Chemicals known to cause developmental toxicity:**
  - 64-17-5 ethyl alcohol
- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    - 64-17-5 ethyl alcohol A3
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02
    - GHS07
- **Signal word** Warning
Trade name: MALT FLAVOR NAT.

- Hazard-determining components of labeling:
  ethyl alcohol

- Hazard statements
  Flammable liquid and vapor.
  Causes skin and eye irritation.
  May cause respiratory irritation.

- Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  Wear protective gloves/protective clothing/eye protection/face protection.
  Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  Call a poison center/doctor if you feel unwell.
  Specific treatment (see on this label).
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  Take off contaminated clothing and wash it before reuse.
  In case of fire: Use for extinction: CO2, powder or water spray.
  Store in a well-ventilated place. Keep container tightly closed.
  Store in a well-ventilated place. Keep cool.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H225 Highly flammable liquid and vapor.
  H315 Causes skin irritation.
  H320 Causes eye irritation.
  H335 May cause respiratory irritation.
Trade name: MALT FLAVOR NAT.

- **Department issuing SDS:** Regulatory department
- **Date of preparation / last revision:** 10/10/2018 / 1
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Flam. Liq. 3: Flammable liquids – Category 3
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- *Data compared to the previous version altered.*