1 Identification

- **Product identifier**
- **Trade name:** GRAPEFRUIT EXTACT WONF NATURAL
- **Product number:** 6104
- **Application of the substance / the mixture** Food flavorings

**Details of the supplier of the safety data sheet**

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- **Manufacturer/Supplier:**
  Advanced Biotech
  10 Taft Road
  Totowa, NJ 07512 USA

- **Information department:**
  Product Safety Department
  productsafety@adv-bio.com

- **Emergency telephone number:**
  1(800)535-5053 (Info Trac)
  1(352)323-3500 (International)
  During normal business hours: 1(973)339-6242

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - **GHS02 Flame**
  - Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  - **Label elements** Harmful in contact with skin or if inhaled.
  - **GHS label elements**
  Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.
  The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  - **GHS02**
  - **Signal word** Danger
47.0.11

· **Hazard statements**
  H225 Highly flammable liquid and vapor.

· **Precautionary statements**
  
  - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - P241 Use explosion-proof electrical/ventilating/lighting/equipment.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P403+P235 Store in a well-ventilated place. Keep cool.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**
  
  - **NFPA ratings (scale 0 - 4)**
    
    Health = 0
    Fire = 3
    Reactivity = 0
  
  - **HMIS-ratings (scale 0 - 4)**
    
    HEALTH 0 Health = 0
    FIRE 3 Fire = 3
    REACTIVITY 0 Reactivity = 0

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

### 3 Composition/information on ingredients

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient</th>
<th>Flammability</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>ethyl alcohol</td>
<td>Flam. Liq. 2, H225</td>
<td>50.0%</td>
</tr>
</tbody>
</table>

### 4 First-aid measures

- **Description of first aid measures**
  
  - **General information:** Immediately remove any clothing soiled by the product.
  - **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  - **After skin contact:** Immediately rinse with water.
  - **After eye contact:** Rinse opened eye for several minutes under running water.
  - **After swallowing:** If symptoms persist consult doctor.
  - **Information for doctor:**
    
    Most important symptoms and effects, both acute and delayed

    No further relevant information available.
Trade name: GRAPEFRUIT EXTRACT WONF NATURAL

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.
    - Additional information: Cool endangered receptacles with water spray. Collect contaminated fire fighting water separately. It must not enter the sewage system.

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).
  - Dispose contaminated material as waste according to item 13.
  - 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.
- Protective Action Criteria for Chemicals
  - PAC-1:
    CAS: 64-17-5 ethyl alcohol 1,800 ppm
  - PAC-2:
    CAS: 64-17-5 ethyl alcohol 3300* ppm
  - PAC-3:
    CAS: 64-17-5 ethyl alcohol 15000* ppm

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 a cool location.
  - **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Keep receptacle tightly sealed.
  - Store in cool, dry conditions in well sealed receptacles.
- **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:**

<table>
<thead>
<tr>
<th>CAS: 64-17-5 ethyl alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td>TLV</td>
</tr>
</tbody>
</table>

- **Additional information**: The lists that were valid during the creation were used as a basis.
- **Exposure controls**
- **Personal protective equipment**:
  - **General protective and hygienic measures**: Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.
  - **Breathing equipment**: Not required.
  - **Protection of hands**:

  ![Protective gloves]

  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 should be based 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 determined by the manufacturer of the protective gloves and has to be observed.
Trade name: GRAPEFRUIT EXTRACT WONF NATURAL

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Liquid
      - Color: According to product specification
    - Odor:
      - Odor threshold: Not determined.
    - pH-value: Not determined.
  - Change in condition
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: 78 °C (172.4 °F)
  - Flash point: 19 °C (66.2 °F)
  - Flammability (solid, gaseous): Not applicable.
  - Ignition temperature: 425 °C (797 °F)
  - Decomposition temperature: Not determined.
  - Auto igniting: Product is not self-igniting.
  - Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
  - Explosion limits:
    - Lower: 3.5 Vol %
    - Upper: 15 Vol %
  - Vapor pressure at 20 °C (68 °F): 59 hPa (44.3 mm Hg)
  - Density at 20 °C (68 °F):
    - Relative density: Not determined.
    - Vapor density: Not determined.
    - Evaporation rate: Not determined.
  - Solubility in / Miscibility with Water: Fully miscible.
  - Partition coefficient (n-octanol/water): Not determined.
  - Viscosity:
    - Dynamic: Not determined.
Safety Data Sheet
acc. to OSHA HCS

Trade name: GRAPEFRUIT EXTRACT WONF NATURAL

Kinematic: Not determined.

· Solvent content:
  Organic solvents: 50.0 %
  VOC content: 50.00 %
  460.0 g/l / 3.84 lb/gal

· Solids content: 50.0 %
· Other information: No further relevant information available.

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:
    · LD/LC50 values that are relevant for classification:
      CAS: 64-17-5 ethyl alcohol
      Oral LD50 7,060 mg/kg (rat)
      Inhalative LC50/4 h 20,000 mg/l (rat)
    · Primary irritant effect:
      · on the skin: No irritant effect.
      · on the eye: No irritating effect.
    · Sensitization: No sensitizing effects known.
    · Additional toxicological information:
      · Carcinogenic categories
        · IARC (International Agency for Research on Cancer)
          CAS: 64-17-5 ethyl alcohol 1
        · NTP (National Toxicology Program)
          None of the ingredients is listed.
        · OSHA-Ca (Occupational Safety & Health Administration)
          None of the ingredients is listed.
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, ADR, IMDG, IATA UN1197
- UN proper shipping name
  - DOT Extracts, flavoring, liquid
  - ADR 1197 Extracts, flavoring, liquid
  - IMDG, IATA EXTRACTS, FLAVOURING, LIQUID
- Transport hazard class(es)
  - DOT
    - Class 3 Flammable liquids
## Trade name: GRAPEFRUIT EXTACT WONF NATURAL

<table>
<thead>
<tr>
<th>Label</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>dc`gx</td>
</tr>
<tr>
<td>Class</td>
<td>3 (F1) Flammable liquids</td>
</tr>
<tr>
<td>Label</td>
<td>3</td>
</tr>
<tr>
<td>IMDG, IATA</td>
<td>dc`gx</td>
</tr>
<tr>
<td>Class</td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td>Label</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>DOT, ADR, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td></td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Warning: Flammable liquids</td>
</tr>
<tr>
<td>Danger code (Kemler):</td>
<td>33</td>
</tr>
<tr>
<td>EMS Number:</td>
<td>F-E,S-D</td>
</tr>
<tr>
<td>Stowage Category</td>
<td>B</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Transport/Additional information:</td>
<td></td>
</tr>
<tr>
<td>DOT</td>
<td></td>
</tr>
<tr>
<td>Quantity limitations</td>
<td>On passenger aircraft/rail: 5 L</td>
</tr>
<tr>
<td>On cargo aircraft only: 60 L</td>
<td></td>
</tr>
<tr>
<td>ADR</td>
<td></td>
</tr>
<tr>
<td>Excepted quantities (EQ)</td>
<td>Code: E2</td>
</tr>
<tr>
<td>Maximum net quantity per inner packaging: 30 ml</td>
<td></td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 500 ml</td>
<td></td>
</tr>
<tr>
<td>IMDG</td>
<td></td>
</tr>
<tr>
<td>Limited quantities (LQ)</td>
<td>1L</td>
</tr>
<tr>
<td>Excepted quantities (EQ)</td>
<td>Code: E2</td>
</tr>
<tr>
<td>Maximum net quantity per inner packaging: 30 ml</td>
<td></td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 500 ml</td>
<td></td>
</tr>
</tbody>
</table>
Trade name: GRAPEFRUIT EXTRACT WONF NATURAL

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):
      All ingredients are 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:
      All ingredients are listed.
  - Carcinogenic categories
    - EPA (Environmental Protection Agency)
      None of the ingredients is listed.
    - TLV (Threshold Limit Value established by ACGIH)
      CAS: 64-17-5 ethyl alcohol
      NIOSH-Ca (National Institute for Occupational Safety and Health)
      None of the ingredients is listed.
  - GHS label elements
    Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.
The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms
  - GHS02

- Signal word Danger
Trade name: GRAPEFRUIT EXTRACT WONF NATURAL

· **Hazard statements**
  H225 Highly flammable liquid and vapor.

· **Precautionary statements**
  P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  P241 Use explosion-proof electrical/ventilating/lighting/equipment.
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  P403+P235 Store in a well-ventilated place. Keep cool.
  P501 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.

· **Department issuing SDS:** Product Safety Department

· **Contact:**
  Product Safety Department
  productsafety@adv-bio.com

· **Date of preparation / last revision** 08/25/2018 / -

· **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)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  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

US