# Safety Data Sheet

**acc. to OSHA HCS**

Printing date 08/25/2018  
Reviewed on 03/31/2018

## 1 Identification

- **Product identifier**
- **Trade name:** Lemon Extract natural
- **Product number:** 6086
- **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](image)

  Flam. Liq. 3 H226 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** Warning

(Continued on page 2)
Hazard statements
H226 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
Fire = 3
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:
CAS: 64-17-5 ethyl alcohol Flam. Liq. 2, H225 46.5%

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.

(Continued on page 3)
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**

<table>
<thead>
<tr>
<th>PAC-1:</th>
<th></th>
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<tbody>
<tr>
<td>CAS: 64-17-5 ethyl alcohol</td>
<td>1,800 ppm</td>
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</table>

<table>
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<tr>
<th>PAC-2:</th>
<th></th>
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<tbody>
<tr>
<td>CAS: 64-17-5 ethyl alcohol</td>
<td>3300° ppm</td>
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<table>
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<tr>
<th>PAC-3:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64-17-5 ethyl alcohol</td>
<td>15000° ppm</td>
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</table>

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.
47.0.11 Protect against electrostatic charges.

- Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: Keep receptacle 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:
    - CAS: 64-17-5 ethyl alcohol
      - PEL Long-term value: 1900 mg/m³, 1000 ppm
      - REL Long-term value: 1900 mg/m³, 1000 ppm
      - TLV Short-term value: 1880 mg/m³, 1000 ppm
  - 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.
### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - Form: Liquid
      - Color: According to product specification
      - Odor: According to product specification
      - Odor threshold: Not determined.
      - pH-value: Not determined.
  - **Change in condition**
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: Undetermined.
  - **Flash point:** 25 °C (77 °F)
  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:** 425 °C (797 °F)
  - **Decomposition temperature:** Not determined.
  - **Auto igniting:** Product is not selfigniting.
  - **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):** 0.94 g/cm³ (7.843 lbs/gal)
    - **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.
Trade name: Lemon Extract natural

<table>
<thead>
<tr>
<th>Kinematic:</th>
<th>Not determined.</th>
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<tbody>
<tr>
<td>· Solvent content:</td>
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<tr>
<td>· Organic solvents:</td>
<td>46.5 %</td>
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<tr>
<td>· VOC content:</td>
<td>46.50 %</td>
</tr>
<tr>
<td>· Other information</td>
<td>437.1 g/l / 3.65 lb/gal</td>
</tr>
<tr>
<td>· Other information</td>
<td>No further relevant information available.</td>
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</table>

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: 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 |
· 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.
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
  - ADR 1197 Extracts, flavoring, liquid
  - IMDG, IATA EXTRACTS, FLAVOURING, LIQUID

- Transport hazard class(es)
  - DOT
    - Class 3 Flammable liquids
    - Label 3
  - ADR
    - Class 3 (F1) Flammable liquids
## 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.
Trade name: Lemon Extract natural

- **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** Warning

- **Hazard statements**
  H226 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.

(Continued on page 10)
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)
  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