1 Identification

- **Product identifier**
- **Trade name**: Caproic Acid synthetic
- **Product number**: 2030
- **CAS Number**: 142-62-1
- **EC number**: 205-550-7
- **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**

  - GHS06 Skull and crossbones
  - Acute Tox. 3  H311  Toxic in contact with skin.

  - GHS05 Corrosion
  - Skin Corr. 1B  H314  Causes severe skin burns and eye damage.
  - Eye Dam. 1  H318  Causes serious eye damage.
Trade name: Caproic Acid synthetic

- **Label elements**
- **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 substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

```
GHS05 GHS06
```

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  hexanoic acid

- **Hazard statements**
  - H311 Toxic in contact with skin.
  - H314 Causes severe skin burns and eye damage.

- **Precautionary statements**
  - **P260** Do not breathe dust/fume/gas/mist/vapors/spray.
  - **P303**+**P361**+**P353** If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - **P305**+**P351**+**P338** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - **P310** Immediately call a poison center/doctor.
  - **P321** Specific treatment (see on this label).
  - **P361**+**P364** Take off immediately all contaminated clothing and wash it before reuse.
  - **P405** Store locked up.
  - **P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 3
    - Fire = 1
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = *3
    - Fire = 1
    - Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
Trade name: Caproic Acid synthetic

· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances
· CAS No. Description
  142-62-1 hexanoic acid
· Identification number(s)
· EC number: 205-550-7

4 First-aid measures

· Description of first aid measures
· General information:
  Immediately remove any clothing soiled by the product.
  In case of irregular breathing or respiratory arrest provide artificial respiration.
· After inhalation: In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. Then 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, powder or alcoholresistant foam.
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  Use fire fighting measures that suit the environment.
· Special hazards arising from the substance or mixture
  During heating or in case of fire poisonous gases are produced.
· Advice for firefighters
· Protective equipment: Mouth respiratory protective device.
· 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
  Mount respiratory protective device.
  Wear protective equipment. Keep unprotected persons away.

(Continued on page 4)
Environmental precautions: 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).
Use neutralizing agent.
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: 2.2 mg/m³
- PAC-2: 24 mg/m³
- PAC-3: 140 mg/m³

Handling and storage

Handling:
- Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
- Information about protection against explosions and fires:
  Keep respiratory protective device available.

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.

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: Not required.
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:
Keep away from foodstuffs, beverages and feed.
### Safety Data Sheet

**Trade name:** Caproic Acid synthetic

(Continuation of page 4)

- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- 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:**

![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.

- **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.

**Eye protection:**

![Tightly sealed goggles]

### 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:** -3 °C (26.6 °F)
    - **Boiling point/Boiling range:** 205 °C (401 °F)
  - **Flash point:** 102 °C (215.6 °F)
## 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:
    - ATE (Acute Toxicity Estimate)
      | Oral | Dermal |
      |------|--------|
      | LD50 | 3,000 mg/kg (rat) | LD50 | 630 mg/kg (rabbit) |
    - CAS: 142-62-1 hexanoic acid
      | Oral | Dermal |
      | LD50 | 3,000 mg/kg (rat) | LD50 | 630 mg/kg (rabbit) |
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: Strong irritant with the danger of severe eye injury.
  - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    - Carcinogenic categories
      - IARC (International Agency for Research on Cancer)
        Substance is not listed.
      - NTP (National Toxicology Program)
        Substance is not listed.
      - OSHA-Ca (Occupational Safety & Health Administration)
        Substance is not 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 (Assessment by list): slightly hazardous for water
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

(Continued on page 8)
## 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.

## 14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG, IATA
  - UN2829

- **UN proper shipping name**
  - DOT
  - ADR
  - IMDG, IATA
  - Caproic acid
  - 2829 Caproic acid
  - CAPROIC ACID

- **Transport hazard class(es)**
  - **DOT**
    - Class: 8 Corrosive substances
    - Label: 8
  - **ADR**
    - Class: 8 (C3) Corrosive substances
    - Label: 8
  - **IMDG, IATA**
    - Class: 8 Corrosive substances

(Continued on page 9)
<table>
<thead>
<tr>
<th>· Label</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Packing group</td>
<td>DOT, ADR, IMDG, IATA</td>
</tr>
<tr>
<td></td>
<td>III</td>
</tr>
<tr>
<td>· Environmental hazards:</td>
<td>Marine pollutant:</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>· Special precautions for user</td>
<td>Warning: Corrosive substances</td>
</tr>
<tr>
<td>· Danger code (Kemler):</td>
<td>80</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-A,S-B</td>
</tr>
<tr>
<td>· Segregation groups</td>
<td>Acids</td>
</tr>
<tr>
<td>· Stowage Category</td>
<td>A</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>On passenger aircraft/rail: 5 L</td>
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<tr>
<td></td>
<td>On cargo aircraft only: 60 L</td>
</tr>
<tr>
<td>· ADR</td>
<td>Code: E1</td>
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<tr>
<td></td>
<td>Maximum net quantity per inner packaging: 30 ml</td>
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<td></td>
<td>Maximum net quantity per outer packaging: 1000 ml</td>
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<tr>
<td>· IMDG</td>
<td>Limited quantities (LQ)</td>
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<tr>
<td></td>
<td>5L</td>
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<td>· Excerpted quantities (EQ)</td>
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<td>· UN &quot;Model Regulation&quot;:</td>
<td>UN 2829 CAPROIC ACID, 8, III</td>
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</table>

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- **Section 355 (extremely hazardous substances):**
  - Substance is not listed.
- **Section 313 (Specific toxic chemical listings):**
  - Substance is not listed.
- **TSCA (Toxic Substances Control Act):**
  - Substance is listed.
Trade name: Caproic Acid synthetic

<table>
<thead>
<tr>
<th>· Proposition 65</th>
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<tbody>
<tr>
<td>· Chemicals known to cause cancer:</td>
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<tr>
<td>Substance is not listed.</td>
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<tr>
<td>· Chemicals known to cause reproductive toxicity for females:</td>
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<tr>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>· Chemicals known to cause reproductive toxicity for males:</td>
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<td>Substance is not listed.</td>
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<tr>
<td>· Chemicals known to cause developmental toxicity:</td>
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<tr>
<td>· TLV (Threshold Limit Value established by ACGIH)</td>
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<tr>
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</tr>
<tr>
<td>· NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
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<td>GHS05  GHS06</td>
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<tr>
<th>· Signal word</th>
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<tr>
<td>Danger</td>
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| · Hazard-determining components of labeling: |
| hexanoic acid |

| · Hazard statements |
| H311 Toxic in contact with skin. |
| H314 Causes severe skin burns and eye damage. |

| · Precautionary statements |
| P260 Do not breathe dust/fume/gas/mist/vapors/spray. |
| P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 Immediately call a poison center/doctor. |
| P321 Specific treatment (see on this label). |
| P361+P364 Take off immediately all contaminated clothing and wash it before reuse. |

(Continued on page 11)
Trade name: Caproic Acid synthetic

| 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.

- **Department issuing SDS**: Product Safety Department
- **Contact**: Product Safety Department productsafety@adv-bio.com
- **Date of preparation / last revision** 08/24/2018 / -
- **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
  - 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
  - Acute Tox. 3: Acute toxicity – Category 3
  - Skin Corr. 1B: Skin corrosion/irritation – Category 1B
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1