## 1 Identification

- **Product identifier**
  - **Trade name:** Trans-2-Octenal natural
  - **Product number:** 1569
  - **CAS Number:** 2548-87-0
  - **EC number:** 219-833-8
- **Application of the substance / the mixture** Flavoring Ingredients

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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:**
  - Infotrac: 1-800-535-5053 (Domestic) & 1-352-323-3500 (International)
  - Email: responders@infotrac.net & During normal business hours: 1-973-339-6242

## 2 Hazard(s) identification

- **Classification of the substance or mixture**
  - Flam. Liq. 4 H227 Combustible liquid.

- **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
Not Applicable

### Signal word
Warning

### Hazard statements
- **H227** Combustible liquid.

### Precautionary statements
- **P210** Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **P280** Wear protective gloves / eye protection / face protection.
- **P370+P378** In case of fire: Use for extinction: CO2, powder or water spray.
- **P403+P235** Store in a well-ventilated place. Keep cool.
- **P501** Dispose of contents/container in accordance with local/regional/national/international regulations.
3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  2548-87-0 trans-2-Octenal
- Identification number(s)
  EC number: 219-833-8

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.
- **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.
- **Additional information**
  - Cool endangered receptacles with water spray.
Trade name: Trans-2-Octenal natural

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**: 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**: Substance is not listed.
  - **PAC-2**: Substance is not listed.
  - **PAC-3**: Substance is not listed.

### 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.
  - **Conditions for safe storage, including any incompatibilities**
  - **Storage**:
    - **Requirements to be met by storerooms and receptacles**:
      - No special requirements.
      - Please refer to product specification for product storage 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**: 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**: Wash hands before breaks and at the end of work.

(Continued on page 4)
Trade name: Trans-2-Octenal natural

- **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.

- **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**: Goggles recommended during refilling.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**: Molecular Weight: 126.2 g/mol
  - **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**: 84-86 °C (183.2-186.8 °F) (@ 19 mm)

- **Flash point**: 66 °C (150.8 °F)

- **Flammability (solid, gaseous)**: Not applicable.

- **Decomposition temperature**: Not determined.

- **Auto igniting**: Not determined.

- **Danger of explosion**: Not determined.

- **Explosion limits**:
  - **Lower**: Not determined.
  - **Upper**: Not determined.

- **Vapor pressure**: Not determined.

- **Density at 20 °C (68 °F)**: 0.85 g/cm³ (7.09325 lbs/gal)

- **Relative density**: Not determined.

- **Vapor density**: Not determined.
Trade name: Trans-2-Octenal natural

<table>
<thead>
<tr>
<th>· Evaporation rate</th>
<th>Not determined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Solubility in / Miscibility with Water:</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>· Partition coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>· Viscosity: Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td></td>
<td>Kinematic: Not determined.</td>
</tr>
<tr>
<td>VOC content:</td>
<td>0.00 %</td>
</tr>
<tr>
<td></td>
<td>0.0 g/l / 0.00 lb/gal</td>
</tr>
<tr>
<td>· Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</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) 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.
Safety Data Sheet
acc. to OSHA HCS (29 CFR § 1910.1200)

Trade name: Trans-2-Octenal natural

### 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.

### 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.

### Transport information

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number</td>
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<tr>
<td>DOT, ADN, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Not Regulated</td>
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<tr>
<td>DOT, ADN, IMDG, IATA</td>
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<tr>
<td>Transport hazard class(es)</td>
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<tr>
<td>DOT, ADN, IMDG, IATA</td>
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</tr>
<tr>
<td>Class</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>Packing group</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>DOT, 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>Not applicable.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>MARPOL73/78 and the IBC Code</td>
<td></td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

(Continued on page 7)
### 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):**
    - ACTIVE
  - **Hazardous Air Pollutants**
    - Substance is not listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for females:**
      - Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for males:**
      - Substance is not listed.
    - **Chemicals known to cause developmental toxicity:**
      - Substance is not listed.
  - **Carcinogenic categories**
    - **EPA (Environmental Protection Agency)**
      - Substance is not listed.
    - **TLV (Threshold Limit Value established by ACGIH)**
      - Substance is not listed.
    - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
      - Substance is not 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 substance is classified and labeled according to the Globally Harmonized System (GHS).
    - **Hazard pictograms** Not Applicable
    - **Signal word** Warning
    - **Hazard statements**
      - H227 Combustible liquid.
  - **Precautionary statements**
    - **P210** Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
    - **P280** Wear protective gloves / eye protection / face protection.
    - **P370+P378** In case of fire: Use for extinction: CO2, powder or water spray.
    - **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.

· Department issuing SDS: Product Safety Department
· Contact:
  Product Safety Department
  productsafety@adv-bio.com
· Date of preparation / last revision 01/12/2021 / -
· Abbreviations and acronyms:
  ADR: Accord relatif au transport international 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)
  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. 4: Flammable liquids – Category 4