1 Identification

· Product identifier
  · Trade name: Damascenone 1% in Triacetin Natural
  · Product number: 1733
  · CAS Number: 23696-85-7/102-76-1
  · EINECS Number: 245-833-2/203-051-9
  · Application of the substance / the mixture: Flavoring Ingredients

· Details of the supplier of the safety data sheet
DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. Advanced Biotech makes NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the Advanced Biotech product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of an Advanced Biotech product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the Advanced Biotech product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

· 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
  GHS07

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

· 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
  GHS07

· Signal word: Warning

· Hazard-determining components of labeling:
  Beta Damascenone

· Hazard statements
  H317 May cause an allergic skin reaction.

(Continued on page 2)
Trade name: Damascenone 1% in Triacetin Natural

· Precautionary statements
   P261 Avoid breathing dust/fume/gas/mist/vapors/spray
   P280 Wear protective gloves.
   P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
   P321 Specific treatment (see on this label).
   P363 Wash contaminated clothing before reuse.
   P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

  · HMIS-ratings (scale 0 - 4)
    HEALTH 1 Health = 1
    FIRE 1 Fire = 1
    REACTIVITY 0 Reactivity = 0

· 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.

· Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 23696-85-7</th>
<th>Beta Damascenone</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 245-833-2</td>
<td>≥1-% ≤2.5%</td>
</tr>
<tr>
<td>Skin Irritation 2, H315; Sensitization - Skin FA, H317</td>
<td></td>
</tr>
</tbody>
</table>

# 4 First-aid measures

· Description of first aid measures
  · After inhalation:  
    Supply fresh air and be sure to call for a doctor.
    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.
  · 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** 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** Not required.
- **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**:
    - CAS: 102-76-1 Triacetin 19 mg/m³
  - **PAC-2**:
    - CAS: 102-76-1 Triacetin 210 mg/m³
  - **PAC-3**:
    - CAS: 102-76-1 Triacetin 1,200 mg/m³

7 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: No special measures required.
  - Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      - No special requirements.
      - Please refer to the product specification and/or Certificate of Analysis for product storage requirements.
    - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
Trade name: Damascenone 1% in Triacetin Natural

- 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:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- 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:
    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. 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 breakthrough 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: 218.21 g/mol
  - Appearance:
    - Form: Liquid
    - Color: According to product specification
    - Odor: According to product specification
    - Odor threshold: Not determined.
  - pH-value: Not determined.

(Continued on page 5)
### 10 Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reactivity</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Chemical stability</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Thermal decomposition / conditions to be avoided:</strong></td>
<td>No decomposition if used according to specifications.</td>
</tr>
<tr>
<td><strong>Possibility of hazardous reactions</strong></td>
<td>No dangerous reactions known.</td>
</tr>
<tr>
<td><strong>Conditions to avoid</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Incompatible materials</strong></td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td><strong>Hazardous decomposition products</strong></td>
<td>No dangerous decomposition products known.</td>
</tr>
</tbody>
</table>
11 Toxicological information

Information on toxicological effects

Acute toxicity:

- LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>LD/50 (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral ATE</td>
<td>3,030</td>
</tr>
<tr>
<td>Dermal ATE</td>
<td>290,000</td>
</tr>
</tbody>
</table>

Primary irritant effect:

- on the skin: No irritant effect.
- on the eye: No irritating effect.

Sensitization: Sensitization possible through skin contact.

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)

None of the ingredients is listed.

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.
Trade name: Damascenone 1% in Triacetin Natural

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, ADN, IMDG, IATA: Not Regulated

- UN proper shipping name
  - DOT, ADN, IMDG, IATA: Not Regulated

- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA
    - Class: Not Regulated

- Packing group
  - DOT, IMDG, IATA: Not Regulated

- Environmental hazards: Not applicable.

- Special precautions for user: Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

- Transport/Additional information: Not dangerous according to the above specifications.

- UN "Model Regulation": Not Regulated

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 components have the value ACTIVE.

- Hazardous Air Pollutants
  - None of the ingredients is 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:
    None of the ingredients is listed.

· Carcinogenic categories
  · EPA (Environmental Protection Agency)
    None of the ingredients is listed.
  · TLV (Threshold Limit Value)
    None of the ingredients is listed.
  · 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
  GHS07

· Signal word Warning

· Hazard-determining components of labeling:
  Beta Damascenone

· Hazard statements
  H317 May cause an allergic skin reaction.

· Precautionary statements
  P261 Avoid breathing dust/fume/gas/mist/vapors/spray
  P280 Wear protective gloves.
  P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
  P321 Specific treatment (see on this label).
  P333 Wash contaminated clothing before reuse.
  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.
Trade name: Damascenone 1% in Triacetin Natural

- **Relevant phrases**
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.

- **Department issuing SDS:** Product Safety Department
- **Contact:**
  - Product Safety Department
  - product safety@adv-bio.com
- **Date of preparation / last revision:** 01/11/2023
- **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
  - 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
  - Skin Irritation 2: Skin corrosion/irritation – Category 2
  - Sensitization - Skin 1: Skin sensitisation – Category 1
  - Sensitization - Skin 1A: Skin sensitisation – Category 1A