1 Identification

- Product identifier
  - Trade name: Cinnamon Bark Oil natural
  - Product number: 3042
  - CAS Number: 8015-91-6
  - EC number: 283-479-0
  - Application of the substance / the mixture: Food flavorings

- 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:
  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
  GHS07
  Acute Tox. 4  H312  Harmful in contact with skin.
  Skin Irrit. 2  H315  Causes skin irritation.
  Eye Irrit. 2A  H319  Causes serious eye irritation.
  Skin Sens. 1  H317  May cause an allergic skin reaction.

- Flam. Liq. 4  H227  Combustible liquid.

- 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.
### Hazard Determining Components of Labeling:

- Cinnamon Oleoresin
- Cassia Oleoresin
- Cinnamon Bark Oil

### Hazard Statements:

- **H227** Combustible liquid.
- **H312** Harmful in contact with skin.
- **H315** Causes skin irritation.
- **H319** Causes serious eye irritation.
- **H317** May cause an allergic skin reaction.

### Precautionary Statements:

- **P210** Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **P261** Avoid breathing dust/fume/gas/mist/vapors/spray
- **P280** Wear protective gloves/protective clothing/eye protection/face protection.
- **P305+P351+P338** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **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 = 2
  - Fire = 2
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - Health = 2
  - Fire = 2
  - Reactivity = 0

### Other Hazards:

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

(Continued on page 3)
3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  8015-91-6 Cinnamon Oleoresin
  Cassia Oleoresin
  Cinnamon Bark Oil
- Identification number(s)
- EC number: 283-479-0

4 First-aid measures

- Description of first aid measures
- General information:
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- 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. If symptoms persist, 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, 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: Prevent seepage into sewage system, workpits and cellars.
47. 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.

48. 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.

49. Protective Action Criteria for Chemicals

50. PAC-1:
Substance is not listed.

51. PAC-2:
Substance is not listed.

52. PAC-3:
Substance is not listed.

7 Handling and storage

53. Handling:
54. Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

55. Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.

56. Conditions for safe storage, including any incompatibilities
57. Storage:
58. Requirements to be met by storerooms and receptacles: No special requirements.
59. Information about storage in one common storage facility: Not required.
60. Further information about storage conditions: Keep receptacle tightly sealed.
61. Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

62. Additional information about design of technical systems: No further data; see item 7.

63. Control parameters
64. Components with limit values that require monitoring at the workplace: Not required.
65. Additional information: The lists that were valid during the creation were used as a basis.

66. Exposure controls
67. Personal protective equipment:
68. General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.

(Continued on page 5)
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: >200 °C (>392 °F)
  - Flash point: >60 °C (>140 °F)
  - Flammability (solid, gaseous): Not applicable.
  - Decomposition temperature: Not determined.
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)
  Dermal | LD50 | 1,100 mg/kg

(Continued on page 7)
Safety Data Sheet
acc. to OSHA HCS

Trade name: Cinnamon Bark Oil natural

<table>
<thead>
<tr>
<th>CAS: 8015-91-6 Cinnamon Oleoresin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassia Oleoresin</td>
</tr>
<tr>
<td>Cinnamon Bark Oil</td>
</tr>
</tbody>
</table>

Dermal LD50 1,100 mg/kg (ATE)

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
  - Sensitization: Sensitization possible through skin contact.

- 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: Generally not hazardous for water
  - 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.
### 14 Transport information

- **UN-Number**
  - DOT, ADR, ADN, IMDG, IATA: Not Regulated

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

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

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

- **Environmental hazards:**
  - Marine pollutant: No

- **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.

- **DOT**
  - **Quantity limitations**
    - On passenger aircraft/rail: -
    - On cargo aircraft only: -

- **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):**
    - Substance is not listed.

- **Section 313 (Specific toxic chemical listings):**
  - Substance is not listed.

- **TSCA (Toxic Substances Control Act):**
  - Substance is 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**

  ![GHS07](image)

· **Signal word** Warning

· **Hazard-determining components of labeling:**
  Cinnamon Oleoresin
  Cassia Oleoresin
  Cinnamon Bark Oil

· **Hazard statements**
  H227 Combustible liquid.
  H312 Harmful in contact with skin.
  H315 Causes skin irritation.
  H319 Causes serious eye irritation.
  H317 May cause an allergic skin reaction.

· **Precautionary statements**
  P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  P261 Avoid breathing dust/fume/gas/mist/vapors/spray
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P403+P235 Store in a well-ventilated place. Keep cool.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Continued on page 10)
· 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 08/25/2018 / -
· 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
  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. 4: Flammable liquids – Category 4
  Acute Tox. 4: Acute toxicity – Category 4
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  Skin Sens. 1: Skin sensitisation – Category 1