1 Identification

- Product identifier
  
  - Trade name: Smoke Flavor SMK350 Natural
  
  - Product number: 1774
  
  - 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

  GHS08 Health hazard
  Muta. 2 H341 Suspected of causing genetic defects.
  Carc. 2 H351 Suspected of causing cancer.
  STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

  GHS05 Corrosion
  Skin Corr. 1B H314 Causes severe skin burns and eye damage.

  GHS07
  Acute Tox. 4 H302 Harmful if swallowed.
  Acute Tox. 4 H312 Harmful in contact with skin.
  Eye Irrit. 2A H319 Causes serious eye irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.

- Label elements Harmful in contact with skin or if inhaled.

(Continued on page 2)
Trade name: Smoke Flavor SMK350 Natural

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

![Pictograms](image)

Signal word
Danger

Hazard-determining components of labeling:
- hydroxyacetone
- 2-furaldehyde
- cresol (mix)
- phenol
- Isoeugenol
- Eugenol
- 2-methoxy-4-propylphenol

Hazard statements
- H302+H312 Harmful if swallowed or in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.

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).
- P362+P364 Take off 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 Health = 3
  FIRE 1 Fire = 1
  REACTIVITY 0 Reactivity = 0

(Continued on page 3)
### 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</th>
<th>Substance</th>
<th>Additional Information</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>116-09-6</td>
<td>Hydroxyacetone</td>
<td>Flam.: Liq. 3; H226; Acute Tox. 3, H311; Acute Tox. 4, H332</td>
<td>3-9%</td>
</tr>
<tr>
<td>79-09-4</td>
<td>Propionic Acid</td>
<td>Flam.: Liq. 3; H226; Acute Tox. 3, H311; Skin Corr. 1B, H314</td>
<td>1-5%</td>
</tr>
<tr>
<td>98-01-1</td>
<td>2-Furaldehyde</td>
<td>Flam.: Liq. 3; H226; Acute Tox. 3, H301; Acute Tox. 3, H331; Carc. 2, H351; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335</td>
<td>1.5-4.5%</td>
</tr>
<tr>
<td>80-71-7</td>
<td>Methylcyclopentenone</td>
<td>Acute Tox. 3, H301</td>
<td>1.5-4.5%</td>
</tr>
<tr>
<td>90-05-1</td>
<td>Guaiacol</td>
<td>Acute Tox. 4, H302</td>
<td>1-3%</td>
</tr>
<tr>
<td>91-10-1</td>
<td>2,6-Dimethoxyphenol</td>
<td>Acute Tox. 4, H302</td>
<td>1-3%</td>
</tr>
<tr>
<td>96-48-0</td>
<td>4-Hydroxybutanoic acid lactone</td>
<td>Acute Tox. 4, H302; Eye Irrit. 2A, H319</td>
<td>0-2.5%</td>
</tr>
<tr>
<td>6638-05-7</td>
<td>4-Methyl-2,6-Dimethoxyphenol</td>
<td>Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335</td>
<td>0-2.5%</td>
</tr>
<tr>
<td>1319-77-3</td>
<td>Cresol (mix)</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Skin Corr. 1B, H314; Flam. Liq. 4, H227</td>
<td>0-2.5%</td>
</tr>
<tr>
<td>5077-67-8</td>
<td>1-Hydroxybutan-2-one</td>
<td>Acute Tox. 3, H226</td>
<td>0-2.5%</td>
</tr>
<tr>
<td>108-95-2</td>
<td>Phenol</td>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Mut. 2, H341; STOT RE 2, H373; Skin Corr. 1B, H314</td>
<td>0-2.5%</td>
</tr>
<tr>
<td>97-54-1</td>
<td>Isoeugenol</td>
<td>Acute Tox. 4, H302; Skin Sens. 1, H317</td>
<td>0-2.5%</td>
</tr>
<tr>
<td>97-53-0</td>
<td>Eugenol</td>
<td>Acute Tox. 4, H302; Skin Sens. 1, H317</td>
<td>0-0.5%</td>
</tr>
<tr>
<td>2785-87-7</td>
<td>2-Methoxy-4-Propylphenol</td>
<td>Eye Irrit. 2A, H319; Skin Sens. 1, H317</td>
<td>0-0.5%</td>
</tr>
</tbody>
</table>
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:**
  Immediately call a 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. Use fire fighting measures that suit the environment. CO2, powder or alcohol resistant foam.
- **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.
- **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

<table>
<thead>
<tr>
<th>PAC-1:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 116-09-6 hydroxyacetone</td>
<td>6.6 mg/m³</td>
</tr>
<tr>
<td>CAS: 79-09-4 Propionic Acid</td>
<td>15 ppm</td>
</tr>
<tr>
<td>CAS: 98-01-1 2-furaldehyde</td>
<td>2 ppm</td>
</tr>
<tr>
<td>CAS: 96-48-0 4-Hydroxybutanoic acid lactone</td>
<td>3.6 mg/m³</td>
</tr>
<tr>
<td>CAS: 1319-77-3 cresol (mix)</td>
<td>14 ppm</td>
</tr>
<tr>
<td>CAS: 108-95-2 phenol</td>
<td>15 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 116-09-6 hydroxyacetone</td>
<td>73 mg/m³</td>
</tr>
<tr>
<td>CAS: 79-09-4 Propionic Acid</td>
<td>28 ppm</td>
</tr>
<tr>
<td>CAS: 98-01-1 2-furaldehyde</td>
<td>10 ppm</td>
</tr>
<tr>
<td>CAS: 96-48-0 4-Hydroxybutanoic acid lactone</td>
<td>39 mg/m³</td>
</tr>
<tr>
<td>CAS: 1319-77-3 cresol (mix)</td>
<td>25 ppm</td>
</tr>
<tr>
<td>CAS: 108-95-2 phenol</td>
<td>23 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-3:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 116-09-6 hydroxyacetone</td>
<td>440 mg/m³</td>
</tr>
<tr>
<td>CAS: 79-09-4 Propionic Acid</td>
<td>170 ppm</td>
</tr>
<tr>
<td>CAS: 98-01-1 2-furaldehyde</td>
<td>100 ppm</td>
</tr>
<tr>
<td>CAS: 96-48-0 4-Hydroxybutanoic acid lactone</td>
<td>310 mg/m³</td>
</tr>
<tr>
<td>CAS: 1319-77-3 cresol (mix)</td>
<td>250 ppm</td>
</tr>
<tr>
<td>CAS: 108-95-2 phenol</td>
<td>200 ppm</td>
</tr>
</tbody>
</table>

### 7 Handing and storage

- **Handling:**
  - **Precautions for safe handling:**
    - Ensure good ventilation/exhaustion at the workplace.
    - Open and handle receptacle with care.
    - 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.
    - 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.
Trade name: Smoke Flavor SMK350 Natural

· Control parameters

· Components with limit values that require monitoring at the workplace:
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>CAS: 79-09-4 Propionic Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL Short-term value: 45 mg/m³, 15 ppm</td>
</tr>
<tr>
<td>Long-term value: 30 mg/m³, 10 ppm</td>
</tr>
<tr>
<td>TLV Long-term value: 30 mg/m³, 10 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 98-01-1 2-furaldehyde</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 20 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td>TLV Long-term value: 0.8 mg/m³, 0.2 ppm</td>
</tr>
<tr>
<td>Skin; BEI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 1319-77-3 cresol (mix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 22 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td>REL Long-term value: 10 mg/m³, 2.3 ppm</td>
</tr>
<tr>
<td>TLV Long-term value: 20* mg/m³</td>
</tr>
<tr>
<td>Skin; as inhalable fraction and vapor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 108-95-2 phenol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 19 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td>REL Long-term value: 19 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>Ceiling limit value: 60* mg/m³, 15.6* ppm</td>
</tr>
<tr>
<td>*15-min; Skin</td>
</tr>
<tr>
<td>TLV Long-term value: 19 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>Skin; BEI</td>
</tr>
</tbody>
</table>

· Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>CAS: 98-01-1 2-furaldehyde</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI 200 mg/L</td>
</tr>
<tr>
<td>Medium: urine</td>
</tr>
<tr>
<td>Time: end of shift</td>
</tr>
<tr>
<td>Parameter: Furoic acid with hydrolysis (nonspecific)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 108-95-2 phenol</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI 250 mg/g creatinine</td>
</tr>
<tr>
<td>Medium: urine</td>
</tr>
<tr>
<td>Time: end of shift</td>
</tr>
<tr>
<td>Parameter: Phenol with hydrolysis (background, nonspecific)</td>
</tr>
</tbody>
</table>

· 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.
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. 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.

- **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:
      - 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:** >110 °C (>230 °F)
  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:** 485 °C (905 °F)
Trade name: Smoke Flavor SMK350 Natural

- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapor pressure: Not determined.
- Density at 20 °C (68 °F): 1.155 g/cm³ (9.63848 lbs/gal)
- Relative density: Not determined.
- Vapor density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with Water: Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Organic solvents: 0-7.5 %
  - Water: 1.0 %
  - VOC content: 0-7.5 %
    - 86.6 g/l / 0.72 lb/gal
- Solids content: 0.0 %
- Other information: No further relevant information available.

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 LD50 597-2,324 mg/kg

(Continued on page 9)
Trade name: Smoke Flavor SMK350 Natural

<table>
<thead>
<tr>
<th></th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 116-09-6 hydroxyacetone</td>
<td>1,769-7,363 mg/kg</td>
<td>31.7-129 mg/l</td>
</tr>
<tr>
<td>Oral</td>
<td>2,200 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>300 mg/kg (ATE)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>11 mg/l (ATE)</td>
<td></td>
</tr>
</tbody>
</table>

CAS: 79-09-4 Propionic Acid

<table>
<thead>
<tr>
<th></th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2,600 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>500 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

CAS: 98-01-1 2-furaldehyde

<table>
<thead>
<tr>
<th></th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>65 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>1,100 mg/kg (ATE)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>3 mg/l (ATE)</td>
<td></td>
</tr>
</tbody>
</table>

CAS: 80-71-7 Methylcyclopentenolone

<table>
<thead>
<tr>
<th></th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>100 mg/kg (ATE)</td>
<td></td>
</tr>
</tbody>
</table>

CAS: 1319-77-3 cresol (mix)

<table>
<thead>
<tr>
<th></th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>100 mg/kg (ATE)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>300 mg/kg (ATE)</td>
<td></td>
</tr>
</tbody>
</table>

CAS: 108-95-2 phenol

<table>
<thead>
<tr>
<th></th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>317 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>850 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - *on the skin:* No irritant effect.
  - *on the eye:* 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:
  - Harmful
  - Irritant

- **Carcinogenic categories**

  - **IARC (International Agency for Research on Cancer)**
    - CAS: 98-01-1 2-furaldehyde 3
    - CAS: 96-48-0 4-Hydroxybutanoic acid lactone 3
    - CAS: 108-95-2 phenol 3
    - CAS: 97-53-0 Eugenol 3

  - **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 3 (Self-assessment): extremely hazardous for water
    Do not allow product to reach ground water, water course or sewage system, even in small quantities.
    Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    Danger to drinking water if even extremely small quantities leak into the ground.
- 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: UN1760
- DOT, ADR, IMDG, IATA: Corrosive liquids, n.o.s. (Propionic acid, Cresols)
- DOT: 1760 CORROSIVE LIQUID, N.O.S. (PROPIONIC ACID, CRESOLS)
- ADR: CORROSIVE LIQUID, N.O.S. (PROPIONIC ACID, CRESOLS)
- IMDG, IATA: CORROSIVE LIQUID, N.O.S. (PROPIONIC ACID, CRESOLS)
- Transport hazard class(es):
  - DOT, IMDG, IATA: 8 Corrosive substances

(Continued on page 11)
### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    - CAS: 108-95-2 phenol
  - **Section 313 (Specific toxic chemical listings):**
    - CAS: 1319-77-3 cresol (mix)
Trade name: Smoke Flavor SMK350 Natural

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-95-2</td>
<td>phenol</td>
</tr>
</tbody>
</table>

**TSCA (Toxic Substances Control Act):**

- CAS: 116-09-6 hydroxyacetone
- CAS: 79-09-4 Propionic Acid
- CAS: 98-01-1 2-furaldehyde
- CAS: 80-71-7 Methylcyclopentenolone
- CAS: 90-05-1 guaiacol
- CAS: 91-10-1 2,6-dimethoxyphenol
- CAS: 96-48-0 4-Hydroxybutanoic acid lactone
- CAS: 93-51-6 2-Methoxy-4-methylphenol
- CAS: 1319-77-3 cresol (mix)
- CAS: 5077-67-8 1-hydroxybutan-2-one
- CAS: 108-95-2 phenol
- CAS: 97-54-1 Isoeugenol
- CAS: 97-53-0 Eugenol
- CAS: 2785-87-7 2-methoxy-4-propylphenol
- CAS: 7732-18-5 Distilled Water

**TSCA new (21st Century Act): (Substances not listed)**

- CAS: 116-09-6 hydroxyacetone
- CAS: 91-10-1 2,6-dimethoxyphenol
- CAS: 6638-05-7 4-Methyl-2,6-Dimethoxyphenol
- CAS: 5077-67-8 1-hydroxybutan-2-one
- CAS: 97-54-1 Isoeugenol
- CAS: 2785-87-7 2-methoxy-4-propylphenol

**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)**
  - CAS: 1319-77-3 cresol (mix) C
  - CAS: 108-95-2 phenol D, I

- **TLV (Threshold Limit Value established by ACGIH)**
  - CAS: 98-01-1 2-furaldehyde A3
  - CAS: 108-95-2 phenol A4

(Continued on page 13)
· 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

GHS05  GHS07  GHS08

· Signal word Danger

· Hazard-determining components of labeling:

  - hydroxyacetone
  - 2-furaldehyde
  - cresol (mix)
  - phenol
  - Isoeugenol
  - Eugenol
  - 2-methoxy-4-propylphenol

· Hazard statements

  - H302+H312 Harmful if swallowed or in contact with skin.
  - H314 Causes severe skin burns and eye damage.
  - H319 Causes serious eye irritation.
  - H317 May cause an allergic skin reaction.
  - H341 Suspected of causing genetic defects.
  - H351 Suspected of causing cancer.
  - H373 May cause damage to organs through prolonged or repeated exposure.

· 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).
  - P362+P364 Take off contaminated clothing and wash it before reuse.
  - P405 Store locked up.
  - 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

  - H226 Flammable liquid and vapor.
  - H227 Combustible liquid.
Trade name: Smoke Flavor SMK350 Natural

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

· Department issuing SDS: Product Safety Department
· Contact:
  Product Safety Department
  productsafety@adv-bio.com
· Date of preparation / last revision 02/12/2019 / -
· 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)
  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
  BEI: Biological Exposure Limit
  Flam. Liq. 3: Flammable liquids – Category 3
  Flam. Liq. 4: Flammable liquids – Category 4
  Acute Tox. 3: Acute toxicity – Category 3
  Acute Tox. 4: Acute toxicity – Category 4
  Skin Corr. 1B: Skin corrosion/irritation – Category 1B
  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
  Mut. 2: Germ cell mutagenicity – Category 2
  Carc. 2: Carcinogenicity – Category 2
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2