1 Identification

- Product identifier
  - Trade name: Methanol natural
  - Product number: 1242
  - CAS Number: 67-56-1
  - EC number: 200-659-6
  - Index number: 603-001-00-X
- Application of the substance / the mixture: Food flavorings

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS02 Flame
    - Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  - GHS06 Skull and crossbones
    - Acute Tox. 3 H301 Toxic if swallowed.
    - Acute Tox. 3 H311 Toxic in contact with skin.
    - Acute Tox. 3 H331 Toxic if inhaled.
  - GHS08 Health hazard

(Continued on page 2)
STOT SE 1  H370  Causes damage to organs.

· 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. The substance is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms

GHS02  GHS06  GHS08

· Signal word  Danger
· Hazard-determining components of labeling: methanol
· Hazard statements
H225  Highly flammable liquid and vapor.
H301+H311+H331  Toxic if swallowed, in contact with skin or if inhaled.
H370  Causes damage to organs.
· Precautionary statements
P210  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260  Do not breathe dust/fume/gas/mist/vapors/spray.
P301+P310  If swallowed: Immediately call a poison center/doctor.
P321  Specific treatment (see on this label).
P330  Rinse mouth.
P303+P361+P353  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 = 1
Fire = 4
Reactivity = 0
· HMIS-ratings (scale 0 - 4)

Health = *1
Fire = 4
Reactivity = 0
· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
Trade name: Methanol natural

3 Composition/information on ingredients
· Chemical characterization: Substances
· CAS No. Description
  67-56-1 methanol
· Identification number(s)
  · EC number: 200-659-6
  · Index number: 603-001-00-X

4 First-aid measures
· Description of first aid measures
  · General information:
    Immediately remove any clothing soiled by the product.
    Remove breathing apparatus only after contaminated clothing have been completely removed.
    In case of irregular breathing or respiratory arrest provide artificial respiration.
  · After inhalation:
    Supply fresh air or oxygen; call for 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. Then consult a doctor.
  · After swallowing:
    Do not induce vomiting; immediately call for medical help.
  · 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
  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:
  Dilute with plenty of water.
  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).
Trade name: Methanol natural

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: | 530 ppm |
| PAC-2: | 2,100 ppm |
| PAC-3: | 7200 ppm |

7 Handling 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 ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
· Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles: Store in a cool location.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
· 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

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 67-56-1 methanol</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Trade name: Methanol natural

<table>
<thead>
<tr>
<th>Ingredients with biological limit values:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAS: 67-56-1 methanol</strong></td>
</tr>
<tr>
<td>BEI</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 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**

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**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: | -98 °C (-144.4 °F)                  |
|  Boiling point/Boiling range: | 64.7 °C (148.5 °F)                  |
| · Flash point:            | 11 °C (51.8 °F)                      |
| · Flammability (solid, gaseous): | Not applicable.                  |
| · Ignition temperature:  | 455 °C (851 °F)                      |
| · Decomposition temperature: | Not determined.                  |
| · Auto igniting:          | Not determined.                      |
| · Danger of explosion:    | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · Explosion limits:      |                                        |
|  Lower:                  | 5.5 Vol %                            |
|  Upper:                  | 44 Vol %                             |
| · Vapor pressure at 20 °C (68 °F): | 128 hPa (96 mm Hg)                |
| · Density at 20 °C (68 °F): | 0.793 g/cm³ (6.61759 lbs/gal)       |
| · Relative density        | Not determined.                      |
| · Vapor density           | Not determined.                      |
| · Evaporation rate        | Not determined.                      |
| · Solubility in / Miscibility with Water: | Fully miscible.                  |
| · Partition coefficient (n-octanol/water): | Not determined.                  |
| · Viscosity:              |                                        |
|  Dynamic:                | Not determined.                      |
|  Kinematic:              | Not determined.                      |
|  Organic solvents:       | 100.0 %                              |
|  VOC content:            | 100.00 %                             |
|  793.0 g/l / 6.62 lb/gal |                                        |
| · 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)
      - Inhalative LC50/4 h: 3 mg/l
    - CAS: 67-56-1 methanol
      - Oral LD50: 5,628 mg/kg (rat)
      - Dermal LD50: 15,800 mg/kg (rabbit)
      - Inhalative LC50/4 h: 3 mg/l (ATE)
- 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.
- 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.
- 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.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
  - DOT, ADR, IMDG, IATA: UN1230

- **UN proper shipping name**
  - DOT: Methanol
  - ADR: 1230 METHANOL
  - IMDG, IATA: METHANOL

- **Transport hazard class(es)**
  - **DOT**
    - **Class:** 3 Flammable liquids
    - **Label:** 3
  - **ADR**
    - **Class:** 3 (FT1) Flammable liquids
    - **Label:** 3+6.1
  - **IMDG**
    - **Class:** 3 Flammable liquids
    - **Label:** 3/6.1
Trade name: Methanol natural

<table>
<thead>
<tr>
<th>IATA</th>
<th>Class 3 Flammable liquids</th>
<th>Label 3 (6.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Packing group</td>
<td>DOT, ADR, IMDG, IATA II</td>
</tr>
<tr>
<td></td>
<td>Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Marine pollutant:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special precautions for user</td>
<td>Warning: Flammable liquids</td>
</tr>
<tr>
<td></td>
<td>Danger code (Kemler):</td>
<td>336</td>
</tr>
<tr>
<td></td>
<td>EMS Number:</td>
<td>F-E,S-D</td>
</tr>
<tr>
<td></td>
<td>Stowage Category</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Stowage Code</td>
<td>SW2 Clear of living quarters.</td>
</tr>
</tbody>
</table>

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

- Transport/Additional information:
  - DOT Quantity limitations:
    - On passenger aircraft/rail: 1 L
    - On cargo aircraft only: 60 L
  - ADR Excepted quantities (EQ):
    - Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

  - IMDG Limited quantities (LQ):
    - 1L
  - IMDG Excepted quantities (EQ):
    - Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- UN "Model Regulation": UN 1230 METHANOL, 3 (6.1), II

**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 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 listed.

**WARNING:** Consuming this product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/food.

Methanol CAS-no.67-56-1 (98% by weight)

- **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**
  - GHS02
  - GHS06
  - GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - methanol

- **Hazard statements**
  - H225 Highly flammable liquid and vapor.
  - H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
  - H370 Causes damage to organs.

- **Precautionary statements**
  - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  - P301+P310 If swallowed: Immediately call a poison center/doctor.
  - P321 Specific treatment (see on this label).
  - P330 Rinse mouth.
Trade name: Methanol natural

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.

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 02/11/2019 / -
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
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
NIOHS: 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. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1