

Safety Data Sheet acc. to OSHA HCS

Printing date 01/11/2019

Reviewed on 01/11/2019

1 Identification

- **Product identifier**
- **Trade name: Rum Ether Type Natural**
- **Product number: 1206**
- **Application of the substance / the mixture** Food flavorings

- **Details of the supplier of the safety data sheet**

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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:**

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**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

- **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 product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02

- **Signal word** Warning

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· **Hazard statements**

H226 Flammable liquid and vapor.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

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 = 0

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0

Fire = 3

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:**

CAS: 64-17-5 | ethyl alcohol

 Flam. Liq. 2, H225

20-32%

4 First-aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **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.

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- **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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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:** 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: 64-17-5	ethyl alcohol	1,800 ppm
CAS: 64-19-7	Acetic acid	5 ppm
CAS: 141-78-6	ethyl acetate	1,200 ppm
CAS: 67-56-1	methanol	530 ppm
CAS: 79-09-4	Propionic Acid	15 ppm
CAS: 105-37-3	ethyl propionate	6.3 ppm
CAS: 98-01-1	2-furaldehyde	2 ppm
CAS: 109-94-4	ethyl formate	100 ppm
CAS: 67-64-1	acetone	200 ppm
CAS: 75-07-0	acetaldehyde	45 ppm
CAS: 107-18-6	allyl alcohol	0.09 ppm
CAS: 79-20-9	methyl acetate	250 ppm

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· PAC-2:

CAS: 64-17-5	ethyl alcohol	3300* ppm
CAS: 64-19-7	Acetic acid	35 ppm
CAS: 141-78-6	ethyl acetate	1,700 ppm
CAS: 67-56-1	methanol	2,100 ppm
CAS: 79-09-4	Propionic Acid	28 ppm
CAS: 105-37-3	ethyl propionate	69 ppm
CAS: 98-01-1	2-furaldehyde	10 ppm
CAS: 109-94-4	ethyl formate	1,300 ppm
CAS: 67-64-1	acetone	3200* ppm
CAS: 75-07-0	acetaldehyde	270 ppm
CAS: 107-18-6	allyl alcohol	1.7 ppm
CAS: 79-20-9	methyl acetate	1,700 ppm

· PAC-3:

CAS: 64-17-5	ethyl alcohol	15000* ppm
CAS: 64-19-7	Acetic acid	250 ppm
CAS: 141-78-6	ethyl acetate	10000** ppm
CAS: 67-56-1	methanol	7200* ppm
CAS: 79-09-4	Propionic Acid	170 ppm
CAS: 105-37-3	ethyl propionate	410 ppm
CAS: 98-01-1	2-furaldehyde	100 ppm
CAS: 109-94-4	ethyl formate	8000* ppm
CAS: 67-64-1	acetone	5700* ppm
CAS: 75-07-0	acetaldehyde	840 ppm
CAS: 107-18-6	allyl alcohol	13 ppm
CAS: 79-20-9	methyl acetate	10000* ppm

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.
 Protect against electrostatic charges.
- **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.

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- **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:**

CAS: 64-17-5 ethyl alcohol

PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1880 mg/m ³ , 1000 ppm

- **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:** 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. 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.

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· **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:	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:** 25.4 °C (77.7 °F)

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

· **Ignition temperature:** 425 °C (797 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower:	3.5 Vol %
Upper:	15 Vol %

· **Vapor pressure at 20 °C (68 °F):** 59 hPa (44.3 mm Hg)

· **Density at 20 °C (68 °F):** 0.969 g/cm³ (8.08631 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.

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Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	21.6-33.8 %
Water:	75-77 %
VOC content:	21.54-33.76 %
	327.1-327.3 g/l / 2.73 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)		
Inhalative	LC50/4 h	857-1,200 mg/l

- **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)		
CAS: 64-17-5	ethyl alcohol	1
CAS: 98-01-1	2-furaldehyde	3
CAS: 75-07-0	acetaldehyde	2B

- **NTP (National Toxicology Program)**

CAS: 75-07-0	acetaldehyde	R
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· **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.

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

- | | |
|---|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | <p>UN1169</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG, IATA | <p>Extracts, aromatic, liquid
 1169 EXTRACTS, AROMATIC, LIQUID
 EXTRACTS, AROMATIC, LIQUID</p> |

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· **Transport hazard class(es)**

· **DOT, IMDG, IATA**



· **Class**

3 Flammable liquids

· **Label**

3

· **ADR**



· **Class**

3 (F1) Flammable liquids

· **Label**

3

· **Packing group**

· **DOT, ADR, IMDG, IATA**

III

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

30

· **EMS Number:**

F-E,S-D

· **Stowage Category**

A

· **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: 60 L

On cargo aircraft only: 220 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

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· **UN "Model Regulation":** UN 1169 EXTRACTS, AROMATIC, LIQUID, 3, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

CAS: 107-18-6	allyl alcohol
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· **Section 313 (Specific toxic chemical listings):**

CAS: 67-56-1	methanol
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CAS: 75-07-0	acetaldehyde
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CAS: 107-18-6	allyl alcohol
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· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 75-07-0	acetaldehyde
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WARNING: Consuming this product can expose you to Acetaldehyde, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov/food.

Acetaldehyde CAS-no. 75-07-0 (150-250 ppm)

· **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:**

CAS: 64-17-5	ethyl alcohol
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CAS: 67-56-1	methanol
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 67-64-1	acetone	I
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CAS: 75-07-0	acetaldehyde	B2
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· **TLV (Threshold Limit Value established by ACGIH)**

CAS: 64-17-5	ethyl alcohol	A3
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CAS: 98-01-1	2-furaldehyde	A3
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CAS: 67-64-1	acetone	A4
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CAS: 75-07-0	acetaldehyde	A3
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CAS: 107-18-6 | allyl alcohol

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

CAS: 75-07-0 | acetaldehyde

· **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**



GHS02

· **Signal word** Warning

· **Hazard statements**

H226 Flammable liquid and vapor.

· **Precautionary statements**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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.

· **Relevant phrases**

H225 Highly flammable liquid and vapor.

· **Department issuing SDS:** Product Safety Department

· **Contact:**

Product Safety Department
 productsafety@adv-bio.com

· **Date of preparation / last revision** 01/11/2019 / -

· **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
 ELINCS: European List of Notified Chemical Substances

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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. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3

US