

Safety Data Sheet
acc. to OSHA HCS (29 CFR § 1910.1200)

Date of issue: 01/28/2026

Reviewed on 01/28/2026

1 Identification

· **Product identifier**

· **Trade name:** Beta Ionone 50% EtOH natural

· **Other means of identification**

· **Product number:** 1276

· **Application of the substance / the mixture** Flavoring Ingredients

· **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:**

Infotrac: 1-800-535-5053 (Domestic) & 1-352-323-3500 (International) Contract 72941
Email: responders@infotrac.net & During normal business hours: 1-973-339-6242

2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS02 Flame

Flammable liquids 2 H225 Highly flammable liquid and vapor.

· **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** Danger

· **Hazard statements**

H225 Highly flammable liquid and vapor.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.

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- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Information pertaining to particular dangers for man and environment:**
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 4
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



HEALTH 0 Health = 0
FIRE 4 Fire = 4
REACTIVITY 0 Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **Classification according to (d)(1)(ii) of § 1910.1200**

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

- **Hazards not otherwise classified**

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5	Ethanol	⚠ Flammable liquids 2, H225; ⚠ Eye irritation 2A, H319	25-50%
EINECS: 200-578-6			

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.
- **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.
- **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:**
 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).
 Dispose contaminated material as waste according to section 13.
 Ensure adequate ventilation.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

CAS: 64-17-5	Ethanol	1800? ppm
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· **PAC-2:**

CAS: 64-17-5	Ethanol	3300?* ppm
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· **PAC-3:**

CAS: 64-17-5	Ethanol	15000* ppm
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· **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.

7 Handling and storage

- **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:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required

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- **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

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

CAS: 64-17-5 Ethanol

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
	A3

- **Additional information:** The lists that were valid during the creation were used as a basis.

· **Exposure controls**

- **Appropriate engineering controls** No further data; see section 7.

· **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.

· **Eye protection:**



Tightly sealed goggles

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· Physical state	Liquid
· Color:	According to product specification
· Odor:	According to product specification
· Odor threshold:	Not determined
· Melting point/Melting range:	Undetermined
· Boiling point/Boiling range:	>78 °C (>172.4 °F)
· Flammability:	Highly flammable.
· Explosion limits:	
· Lower:	3.5 Vol %
· Upper:	15 Vol %
· Flash point:	13 °C (55.4 °F)
· Auto igniting:	425 °C (797 °F)
· Decomposition temperature:	Not determined
· pH-value:	Not determined
· Viscosity:	
· Kinematic:	Not determined
· Dynamic:	Not determined
· Solubility in / Miscibility with	
· Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined
· Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)
· Vapor pressure:	
· Density at 20 °C (68 °F):	0.88 g/cm ³ (7.3436 lbs/gal)
· Relative density	Not determined
· Refractive Index	
· Vapor density	Not determined
· Particle characteristics	Not applicable

· **Other information**

· Appearance:	
· Form:	Liquid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Solvent content:	
· Organic solvents:	50.0 %
· VOC content:	50.00 % 440.0 g/l / 3.67 lb/gal
· Change in condition	
· Evaporation rate	Not determined

10 Stability and reactivity

· **Reactivity** No further relevant information available.

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- **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:**

CAS: 64-17-5 Ethanol

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Interactive effects** No interactive effects between components are known.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 64-17-5	Ethanol	1
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Alternative sources for toxicological information**

No non-standard sources for toxicological information where used.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **Other adverse effects**
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.

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Danger to drinking water if even small quantities leak into the ground.

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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

<ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA 	<p>UN1170</p>
<ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA 	<p>Ethanol solutions ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), MARINE POLLUTANT ETHANOL SOLUTION</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	<div style="display: flex; align-items: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	<p>3 Flammable liquids 3</p>
<ul style="list-style-type: none"> · IMDG 	<div style="display: flex; align-items: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	<p>3 Flammable liquids 3</p>
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; align-items: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	<p>3 Flammable liquids 3</p>

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<ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA 	II
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	No Yes (DOT) Symbol (fish and tree)
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable
<ul style="list-style-type: none"> · Transport/Additional information: · DOT · Quantity limitations · Remarks: 	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L Special marking with the symbol (fish and tree).
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category 	Warning: Flammable liquids 33 F-E,S-D A
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

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.

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· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

CAS: 64-17-5 | Ethanol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

CAS: 64-17-5 | Ethanol

A3

· **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**



GHS02

· **Signal word** Danger

· **Hazard statements**

H225 Highly flammable liquid and vapor.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

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

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

H319 Causes serious eye irritation.

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

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· **Contact:**

Product Safety Department
productsafety@adv-bio.com

· **Date of previous version** 10/28/2025

· **Date of preparation** 01/28/2026

· **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

Flammable liquids 2: Flammable liquids – Category 2

Eye irritation 2A: Serious eye damage/eye irritation – Category 2A

US