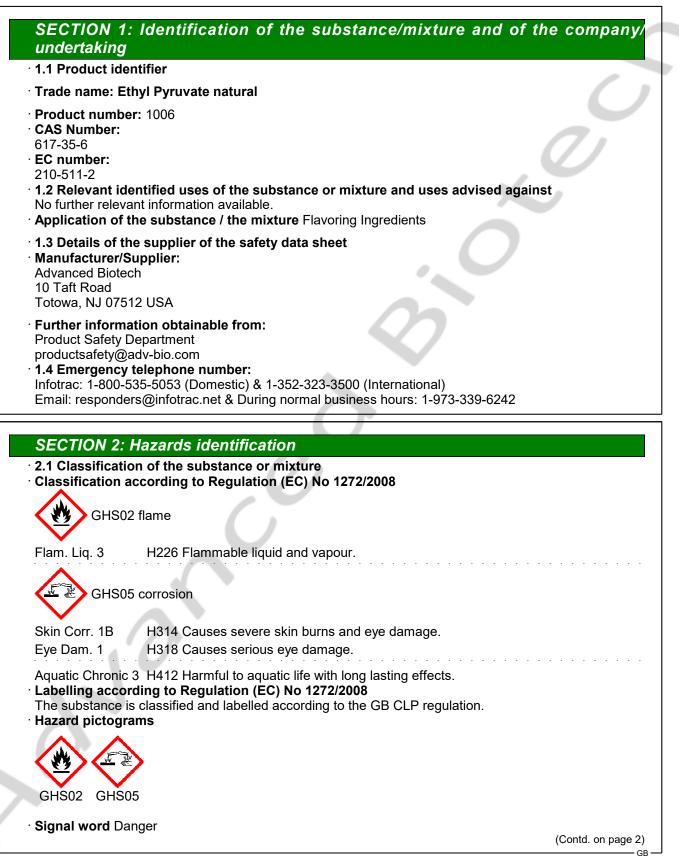


Printing date 19.01.2024

Safety data sheet according to 1907/2006/EC, Article 31

Version number 1

Revision: 19.01.2024



ADVANCED

Printing date 19.01.2024

Safety data sheet according to 1907/2006/EC, Article 31

Version number 1

Revision: 19.01.2024

Trade name: Ethyl Pyruvate natural

	(Contd. of page
Hazard-dete	rmining components of labelling:
Ethyl pyruvat	
Hazard state	ements
H226 Flamm	able liquid and vapour.
H314 Causes	s severe skin burns and eye damage.
H412 Harmfu	Il to aquatic life with long lasting effects.
Precautiona	ry statements
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition source No smoking.
P260	Do not breathe dusts or mists.
P303+P361+	P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin wi water [or shower].
P305+P351+	P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove conta lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see on this label).
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/internation regulations.
2.3 Other ha	zards
Results of P	BT and vPvB assessment
PBT: Not app	blicable.
vPvB: Not ap	

SECTION 3: Composition/information on ingredients

- · 3.1 Substances
- CAS No. Description
- CAS: 617-35-6 Ethyl pyruvate
- Identification number(s)
- EC number: 210-511-2

SECTION 4: First aid measures

- 4.1 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. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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• For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

- 5.3 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.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
- Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralising agent. Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

- **Information about fire and explosion protection:** Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Keep respiratory protective device available.
- 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.

Please refer to the product specification and/or Certificate of Analysis for product storage requirements.

- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace: Not required.

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· Odour threshold:

range · Flammability

· Lower:

· Melting point/freezing point:

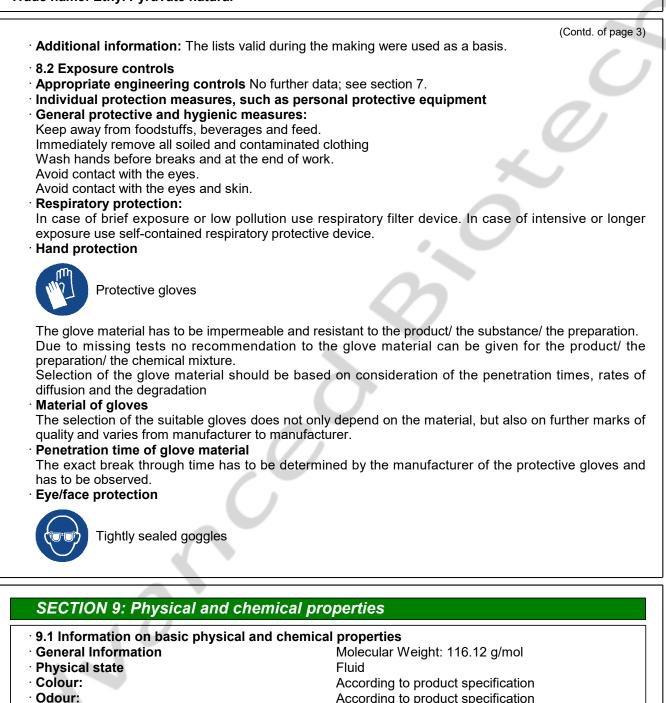
· Lower and upper explosion limit

· Boiling point or initial boiling point and boiling

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According to product specification

Not determined.

Undetermined.

Flammable.

Not determined.

149 °C

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Upper:	Not determined.
Flash point:	46.1 °C
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log va	
Vapour pressure:	Not determined.
Density and/or relative density	4.045 - 4 3
Density at 20 °C:	1.045 g/cm ³
Relative density	Not determined.
Refractive Index	Net determined
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Liquid
Important information on protection of he	alth
and environment, and on safety.	
Ignition temperature:	Not determined.
Explosive properties:	Product is not explosive. However, formation of
	explosive air/vapour mixtures are possible.
Solvent content:	0.00.0/
VOC (EC)	0.00 %
Change in condition	Not data wain ad
Evaporation rate	Not determined.
Information with regard to physical haz	zard
classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit	\/_:d
flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
	(Contd. on page 6



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Trade name: Ethyl Pyruvate natural

Desensitised explosives

Void

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Based on available data, the classification criteria are not met.
- Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Causes serious eye damage.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- 11.2 Information on other hazards

Endocrine disrupting properties

Substance is not listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- 12.7 Other adverse effects
- · Remark: Harmful to fish

Additional ecological information:

General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number	
ADR, IMDG, IATA	UN2920
14.2 UN proper shipping name	
ADR	2920 CORROSIVE LIQUID, FLAMMABLE, N.O
· IMDG, IATA	(Ethyl pyruvate) CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Et
	pyruvate)
14.3 Transport hazard class(es)	
ADR	
\wedge	
Class	8 (CF1) Corrosive substances.
Label	8+3
·IMDG	
8 8	
Class	8 Corrosive substances.
	8/3
· IATA	
\wedge	
8	
Class	8 Corrosive substances.
Label	8 (3)
14.4 Packing group	
ADR, IMDG, IATA	II



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[·] 14.5 Environmental hazards: [·] Marine pollutant:	No
 14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category Stowage Code 	Warning: Corrosive substances. : 83 F-E,S-C C SW1 Protected from sources of heat. SW2 Clear of living quarters.
 14.7 Maritime transport in bulk according to IMO instruments 	Not applicable.
· Transport/Additional information:	
 ADR 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
 Transport category Tunnel restriction code 	2 D/E
 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
· UN "Model Regulation":	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ETHYL PYRUVATE), 8 (3), II

SECTION 15: Regulatory information

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

· Poisons Act

Regulated explosives precursors	
Substance is not listed.	
· Regulated poisons	
Substance is not listed.	
· Reportable explosives precursors	
Substance is not listed.	

· Reportable poisons

Substance is not listed.

· Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the GB CLP regulation.

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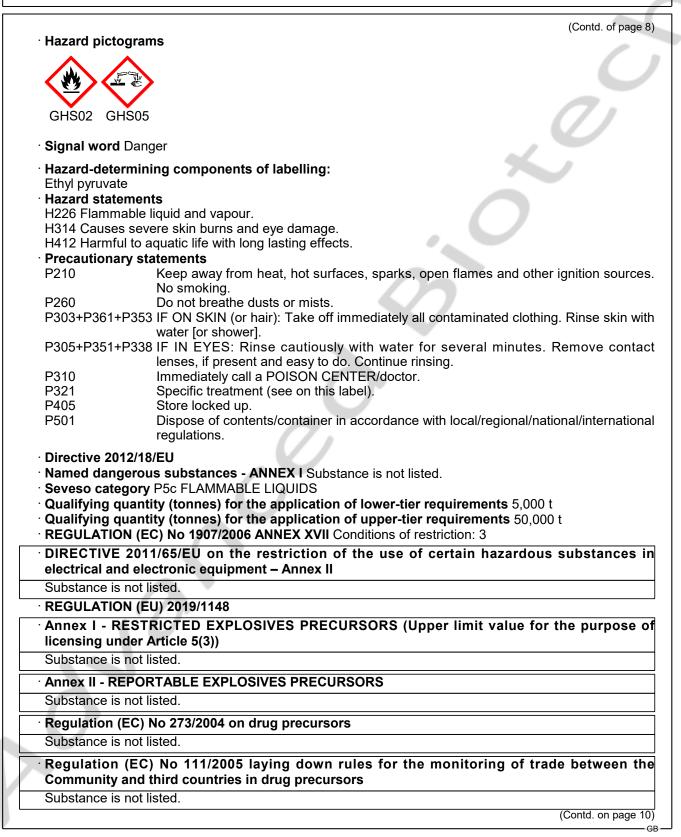


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SECTION 16: Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
 Department issuing SDS: Product safety department Contact: Product Safety Department productsafety@adv-bio.com Date of previous version: 16.01.2024 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 IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids – Category 3 Skin Corr. 1B: Skin corrosion/irritation – Category 1 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3