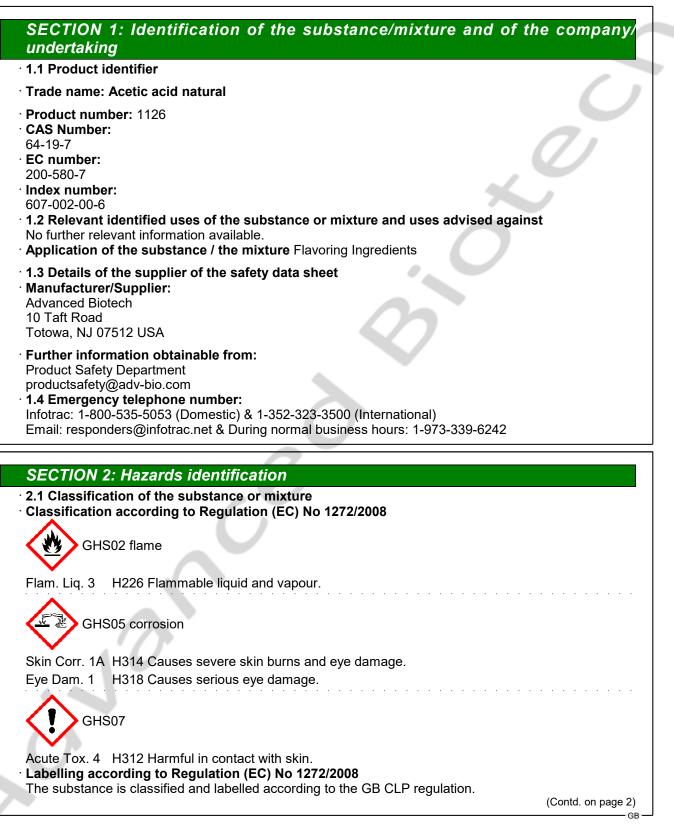


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Safety data sheet according to 1907/2006/EC, Article 31

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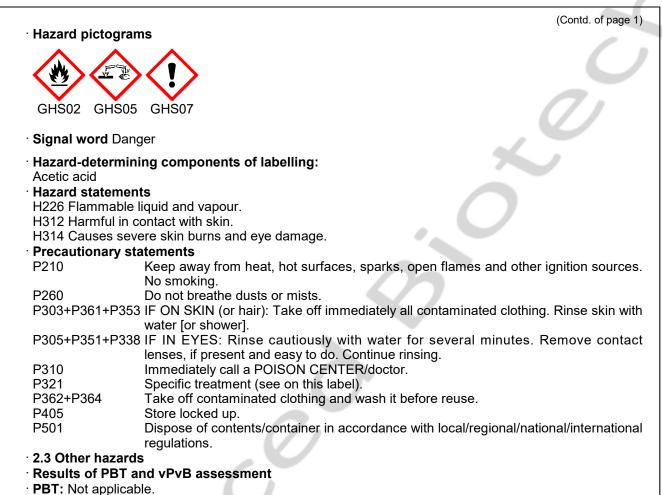


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• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.1 Substances
- CAS No. Description CAS: 64-19-7 Acetic acid
- Identification number(s)
- · EC number: 200-580-7
- · Index number: 607-002-00-6
- Specific concentration limits Skin Corr. 1A; H314: $C \ge 90 \%$ Skin Corr. 1B; H314: 25 % $\le C < 90 \%$ Skin Irrit. 2; H315: 10 % $\le C < 25 \%$ Eye Irrit. 2; H319: 10 % $\le C < 25 \%$ • Acute toxicity estimate (ATE) values LD50 oral: 3,310 mg/kg LD50 dermal: 1,100 mg/kg

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SECTION 4: First aid measures

- 4.1 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: 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: Drink plenty of water and provide fresh air. Call for a doctor immediately.
- 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.
- 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: Dilute with plenty of water. 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.

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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:

CAS: 64-19-7 Acetic acid

- WEL Short-term value: 50 mg/m³, 20 ppm
 - Long-term value: 25 mg/m³, 10 ppm
- Additional information: The lists valid during the making were used as a basis.
- · 8.2 Exposure controls
- Appropriate engineering controls No further data; see section 7.
- Individual protection measures, such as 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.

Avoid contact with the eyes. Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Hand protection



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.

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· 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/face protection

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Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and ch	nemical properties
· General Information	Molecular Weight: 60.05 g/mol
· Physical state	Fluid
· Colour:	According to product specification
· Odour:	According to product specification
· Odour threshold:	Not determined.
 Melting point/freezing point: 	16.6 °C
• Boiling point or initial boiling point and	boiling
range	⊂118 °C
· Flammability	Flammable.
· Lower and upper explosion limit	
· Lower:	4 Vol %
· Upper:	17 Vol %
· Flash point:	39 °C
• Auto-ignition temperature:	485 °C
Decomposition temperature:	Not determined.
· pH	2.5
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	1.24 mPas
Solubility	
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log	
· Vapour pressure at 20 °C:	16 hPa
· Density and/or relative density	
· Density at 20 °C:	1.05 g/cm³
· Relative density	Not determined.
· Refractive Index	Not determined.
· Vapour density	Not determined.
9.2 Other information	
· Appearance:	
· Form:	Liquid
Important information on protection of	health
and environment, and on safety.	
 Ignition temperature: 	Not determined.
· Explosive properties:	Product is not explosive. However, formation o explosive air/vapour mixtures are possible.
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Solvent content:		
Organic solvents:	100.0 %	
VOC (EC)	100.00 %	
Change in condition		
Evaporation rate	Not determined.	
Information with regard to physical ha	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		
flammable gases in contact with water	Void	
Oxidising liquids	Void	
Oxidising solids	Void	
Organic peroxides	Void	
Corrosive to metals	Void	
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 Harmful in contact with skin.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Dermal LD50 1,060 mg/kg (rabbit)

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Oral

LD50 3,310 mg/kg (ATE)

3,310 mg/kg (rat)

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Dermal LD50 1,100 mg/kg (ATE)

1,060 mg/kg (rabbit)

• 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
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (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.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

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(Contd. of page 7) SECTION 14: Transport information · 14.1 UN number or ID number · ADR, IMDG, IATA UN2789 · 14.2 UN proper shipping name · ADR 2789 ACETIC ACID, GLACIAL 2789 ESSIGSÄURE (EISESSIG) ACETIC ACID, GLACIAL · IMDG, IATA · 14.3 Transport hazard class(es) · ADR 8 (CF1) Corrosive substances. · Class · Label 8+3 · IMDG · Class 8 Corrosive substances. · Label 8/3 · IATA · Class 8 Corrosive substances. · Label 8 (3) 14.4 Packing group · ADR, IMDG, IATA Ш · 14.5 Environmental hazards: • Marine pollutant: No · 14.6 Special precautions for user Warning: Corrosive substances. Hazard identification number (Kemler code): 83 · EMS Number: F-E.S-C · Segregation groups (SGG1) Acids Stowage Category A Segregation Code SG36 Stow "separated from" SGG18-alkalis. SG49 Stow "separated from" SGG6-cyanides 14.7 Maritime transport in bulk according to **IMO** instruments Not applicable. (Contd. on page 9) GB



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 Transport/Additional information: 	
· ADR · Limited quantities (LQ)	1L
Excepted quantities (EQ)	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 2789 ACETIC ACID, GLACIAL, 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.

· Hazard pictograms



- · Signal word Danger
- Hazard-determining components of labelling: Acetic acid

· Hazard statements

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

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· Precautionary s			
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.		
P260	Do not breathe dusts or mists.		
P303+P361+P35	53 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].		
P305+P351+P33	38 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.		
· Directive 2012/1	8/FU		
	bus substances - ANNEX I Substance is not listed.		
	y P5c FLAMMABLE LIQUIDS		
 Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t 			
•	EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3		
·DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in			
electrical and el	lectronic equipment – Annex II		
Substance is not listed.			
· REGULATION (EU) 2019/1148			
Annex I - RES	TRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of		
licensing under			
Substance is not	listed.		
· Annex II - REPORTABLE EXPLOSIVES PRECURSORS			
Substance is not	listed.		
· Regulation (EC) No 273/2004 on drug precursors			
Substance is not listed.			
 Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors 			
Substance is not listed.			
• 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.			

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

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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) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative ATE: Acute toxicity estimate values Flam. Liq. 3: Flammable liquids – Category 3 Acute Tox. 4: Acute toxicity – Category 4 Skin Corr. 1A: Skin corrosion/irritation – Category 1A Eye Dam. 1: Serious eye damage/eye irritation – Category 1