

Printing date 01/16/2024

Reviewed on 09/27/2022



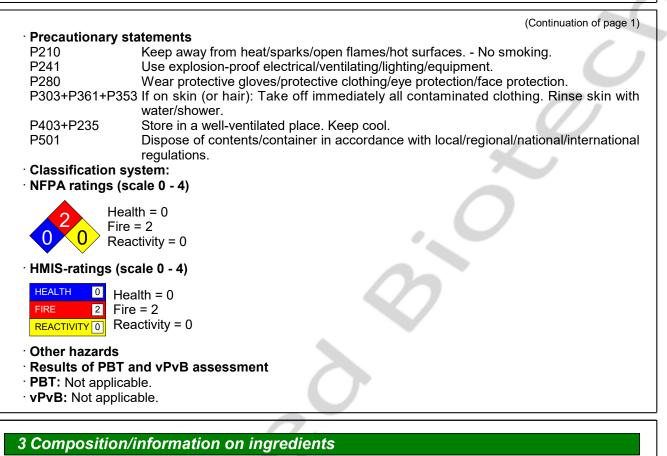


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Safety Data Sheet acc. to OSHA HCS (29 CFR § 1910.1200)

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Trade name: Butyl-2-Methyl Butyrate natural



· Chemical characterization: Substances

- · CAS No. Description
- CAS: 15706-73-7 Butyl-2-Methyl Butyrate
- Identification number(s)
- EC number: 239-798-2

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.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

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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 section 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:

Substance is not listed.

· PAC-2:

Substance is not listed.

· PAC-3:

Substance is not listed.

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 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 receptacle tightly sealed.

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· 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 section 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- 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.

· 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

 Information on basic physi General Information 	cal and chemical properties	
· Appearance:		
Form:	Liquid	
Color:	According to product specification	
· Odor:	According to product specification	
· Odor threshold:	Not determined.	
· pH-value:	Not determined.	



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Change in condition Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	174-176 °C (345.2-348.8 °F)	
Flash point:	58 °C (136.4 °F)	
Flammability (solid, gaseous):	Flammable.	/
Decomposition temperature:	Not determined.	
Ignition temperature:	Not determined.	
Danger of explosion:	Not determined.	
Explosion limits: Lower: Upper:	Not determined. Not determined.	
Vapor pressure:	Not determined.	
Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate	0.869 g/cm³ (7.25181 lbs/gal) Not determined. Not determined. Not determined.	
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.	
Partition coefficient (n-octanol/	water): Not determined.	
Viscosity: Dynamic: Kinematic: VOC content:	Not determined. Not determined. 0.00 % 0.0 g/l / 0.00 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:
- · Primary irritant effect:
- · on the skin: No irritant effect.

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· 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 2 (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

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

- · 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

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.

UN-Number	
DOT, IMDG, IATA	UN3272
UN proper shipping name	
DOT	Esters, n.o.s. (Butyl-2-Methyl Butyrate)
IMDG, IATA	ESTERS, N.O.S. (Butyl-2-Methyl Butyrate)



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Trade name: Butyl-2-Methyl Butyrate natural (Continuation of page 6) · Transport hazard class(es) · DOT · Class 3 Flammable liquids · Label 3 · IMDG, IATA · Class **3 Flammable liquids** · Label 3 · Packing group · DOT, IMDG, IATA Ш · Environmental hazards: • Marine pollutant: No · Special precautions for user Warning: Flammable liquids Stowage Category А · 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 ·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 · UN "Model Regulation": UN 3272 ESTERS, N.O.S. (BUTYL-2-METHYL BUTYRATE), 3, III

15 Regulatory information

 $^{\cdot}$ Safety, health and environmental regulations/legislation specific for the substance or mixture $^{\cdot}$ Sara

• Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

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TSCA (Toxic S	ubstances Control Act):
ACTIVE	
Hazardous Air	Pollutants
Substance is no	
Proposition 65	
•	wn to cause cancer:
Substance is no	
	wn to cause reproductive toxicity for females:
Substance is no	t listed.
Chemicals kno	wn to cause reproductive toxicity for males:
Substance is no	t listed.
Chemicals kno	wn to cause developmental toxicity:
Substance is no	it listed.
Carcinogenic o	estegories
-	nental Protection Agency)
Substance is no	
TLV (Threshold	
Substance is no	
	ional Institute for Occupational Safety and Health)
Substance is no	it listed.
GHS label elen	
	label shall be in the shape of a square set at a point and shall include a black hazard
	ite background with a red frame sufficiently wide to be clearly visible. is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictogr	
\mathbf{V}	
GHS02	
Signal word W	arning
Hazard statem	0
	le liquid and vapor.
Precautionary	
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.
D000 . D004 . D0	53 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with
P303+P361+P3	
	water/shower. Store in a well-ventilated place. Keep cool
P403+P235	Store in a well-ventilated place. Keep cool.

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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 01/16/2024
- · 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 DOT: US Department of Transportation IATA: International Air Transport Association 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) 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 3: Flammable liquids – Category 3