

Printing date 01/16/2024 Reviewed on 01/10/2023

1 Identification

· Product identifier

· Trade name: Isobutyl Propionate natural

· Product number: 1122

• CAS Number: 540-42-1 • EC number: 208-746-0

· Index number: 607-029-00-3

· 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)

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 3 H226 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 substance 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: Substances
- · CAS No. Description

CAS: 540-42-1 iso-butyl propionate

- · Identification number(s)
- · **EC number:** 208-746-0
- · Index number: 607-029-00-3

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 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.

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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.
- · 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

9 Physical and chemical properties

· Information on basic physical and chemical properties

General Information Molecular Weight: 130.19 g/mol

Appearance:

Form: Liquid

Color: According to product specification

Odor: According to product specification

· Odor threshold: Not determined.

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|--|--|
| · pH-value: | Not determined. |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | -71 °C (-95.8 °F) 137 °C (278.6 °F) |
| · Flash point: | 26.6 °C (79.9 °F) |
| · Flammability (solid, gaseous): | Flammable. |
| · Decomposition temperature: | Not determined. |
| · Ignition temperature: | Not determined. |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · Explosion limits: Lower: Upper: | Not determined. Not determined. |
| · Vapor pressure: | Not determined. |
| Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate | 0.864-0.874 g/cm³ (7.21008-7.29353 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 |
| 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.



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11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- LD/LC50 values that are relevant for classification:

CAS: 540-42-1 iso-butyl propionate

Oral LD50 5,599 mg/kg (rabbit)

- 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)

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 of together with household garbage. Do not allow product to reach sewage system.

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

| Transport information | |
|---|---|
| UN-Number DOT, IMDG, IATA | UN2394 |
| UN proper shipping name DOT IMDG, IATA | Isobutyl propionate ISOBUTYL PROPIONATE |
| Transport hazard class(es) | |
| DOT | |
| PLANMINEE LOUIS | |
| Class Label | 3 Flammable liquids 3 |
| IMDG, IATA | |
| | |
| Class | 3 Flammable liquids |
| Label | 3 |
| Packing group DOT, IMDG, IATA | III |
| Environmental hazards: Marine pollutant: | No |
| Special precautions for user | Warning: Flammable liquids |
| Hazard identification number (Kemler code EMS Number: | s): 30 F-E,S-D |
| Stowage Category | В В |
| 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 |



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| · 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 2394 ISOBUTYL PROPIONATE, 3, III |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- · Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

ACTIVE

· Hazardous Air Pollutants

Substance is not listed.

Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

TLV (Threshold Limit Value)

Substance is not listed.

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

Substance is not listed.

· GHS label elements

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· Hazard pictograms





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· 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.

· 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)

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 3: Flammable liquids - Category 3

US