

Safety Data Sheet

according to 29 CFR 1910.1200(g)

NATURAL ISOAMYL BUTYRATE

Revision date: 05/25/2023

Product code: 206000US

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1. Identification

Product identifier

NATURAL ISOAMYL BUTYRATE

Substance name: NATURAL ISOAMYL BUTYRATE
 CAS No: 106-27-4

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

For Flavour use for food and feed only

Details of the supplier of the safety data sheet

| | | |
|-------------------------|----------------------------------|------------------------------|
| Company name: | Axxence Aromatic GmbH | |
| Street: | Tackenweide 28 | |
| Place: | D-46446 Emmerich am Rhein | |
| Telephone: | + 49 2822 68561 0 | Telefax: + 49 2822 68561 39 |
| E-mail: | info@axxence.com | |
| Contact person: | Safety Team | Telephone: + 49 2822 68561 0 |
| E-mail: | safety-documentation@axxence.com | |
| Internet: | www.axxence.de | |
| Responsible Department: | Safety Management | |

Emergency phone number: +49 2822 68561 99

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Flammable liquids: Flam. Liq. 3
 Hazardous to the aquatic environment: Aquatic Acute 2
 Hazardous to the aquatic environment: Aquatic Chronic 2

Label elements

29 CFR Part 1910.1200

Signal word: Warning

Pictograms:



Hazard statements

Flammable liquid and vapor

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 In case of fire: Use Carbon dioxide (CO₂), Extinguishing powder, Foam to extinguish.
 Store in a well-ventilated place. Keep cool.
 Dispose of contents/container to Organic waste.

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Hazards not otherwise classified

No information available.

3. Composition/information on ingredients**Substances**

Sum formula: C₉ H₁₈ O₂
Molecular weight: 158,24 g/mol

Relevant ingredients

| CAS No | Components | Quantity |
|----------|--------------------------|----------|
| 106-27-4 | NATURAL ISOAMYL BUTYRATE | 100 % |

4. First-aid measures**Description of first aid measures****After inhalation**

Provide fresh air.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of water.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**Carbon dioxide (CO₂), Foam, Extinguishing powder.**Unsuitable extinguishing media**

Water.

Specific hazards arising from the chemical

Flammable. Vapors may form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition.

Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

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Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

No special measures are necessary.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

8. Exposure controls/personal protection

Control parameters

Exposure controls



Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye protection/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Use of protective clothing.

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Respiratory protection

In case of inadequate ventilation wear respiratory protection.

9. Physical and chemical properties**Information on basic physical and chemical properties**

| | |
|---|------------------------|
| Physical state: | Liquid |
| Color: | colorless |
| Odor: | fruity |
| Melting point/freezing point: | -73 °C |
| Boiling point or initial boiling point and boiling range: | 178 °C |
| Flammability: | not determined |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |
| Flash point: | 59 °C |
| Auto-ignition temperature: | not determined |
| Decomposition temperature: | not determined |
| pH-Value: | not determined |
| Water solubility: (at 25 °C) | 0,268 g/l |
| Solubility in other solvents | not determined |
| Partition coefficient n-octanol/water: | 3,99 |
| Vapor pressure: (at 20 °C) | 1,26 hPa |
| Vapor pressure: (at 50 °C) | 7,82 hPa |
| Density (at 20 °C): | 0,88 g/cm ³ |
| Relative vapour density: (at 20 °C) | 5,45 |

Other information**Information with regard to physical hazard classes**

Explosive properties

not explosive according to EU A.14

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

| | |
|-------------------|----------------|
| Evaporation rate: | not determined |
| Solvent content: | 0% |
| Solid content: | 0% |

10. Stability and reactivity**Reactivity**

Flammable.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapors may form explosive

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mixtures with air.

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

| CAS No | Components | | | | |
|----------|--------------------------|------------------|---------|--------------------|----------|
| | Exposure route | Dose | Species | Source | Method |
| 106-27-4 | NATURAL ISOAMYL BUTYRATE | | | | |
| | oral | LD50 >5000 mg/kg | Rat | REACH registration | OECD 423 |
| | dermal | LD50 >5000 mg/kg | Rabbit | Gestis | |

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitizing effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA): Not listed.

Carcinogenicity (IARC): Not listed.

Carcinogenicity (NTP): Not listed.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on other hazards

Endocrine disrupting properties

No information available.

12. Ecological information

Ecotoxicity

Toxic to aquatic life with long lasting effects.

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| CAS No | Components | | | | | |
|----------|--------------------------|------------------|-----------|---------|------------------------------------|-----------------------------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 106-27-4 | NATURAL ISOAMYL BUTYRATE | | | | | |
| | Acute fish toxicity | LC50 mg/l | 3,47 | 96 h | Danio rerio (zebrafish) | REACH registration OECD 203 |
| | Acute algae toxicity | ErC50 mg/l | 4,68 | 72 h | Pseudokirchneriella subcapitata | REACH registration OECD 201 |
| | Acute crustacea toxicity | EC50 mg/l | 8,12 | 48 h | Daphnia magna (Big water flea) | REACH registration OECD 202 |
| | Acute bacteria toxicity | EC50 mg/l () | 3070 | 3 h | Activated sludge | SDS MERCK |

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Components | Log Pow |
|----------|--------------------------|---------|
| 106-27-4 | NATURAL ISOAMYL BUTYRATE | 3,99 |

Mobility in soil

The product has not been tested.

Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport information

U.S. DOT 49 CFR 172.101

| | |
|---|----------------|
| <u>UN number or ID number:</u> | UN 2620 |
| <u>Proper shipping name:</u> | AMYL BUTYRATES |
| <u>Transport hazard class(es):</u> | 3 |
| <u>Packing group:</u> | III |
| Hazard label: | 3 |



Marine transport (IMDG)

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| | |
|------------------------------------|----------------|
| UN number or ID number: | UN 2620 |
| UN proper shipping name: | AMYL BUTYRATES |
| Transport hazard class(es): | 3 |
| Packing group: | III |
| Hazard label: | 3 |



| | |
|---------------------|----------|
| Special Provisions: | - |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| EmS: | F-E, S-D |

Air transport (ICAO-TI/IATA-DGR)

| | |
|------------------------------------|----------------|
| UN number or ID number: | UN 2620 |
| UN proper shipping name: | AMYL BUTYRATES |
| Transport hazard class(es): | 3 |
| Packing group: | III |
| Hazard label: | 3 |



| | |
|--|-------|
| Limited quantity Passenger: | 10 L |
| Passenger LQ: | Y344 |
| Excepted quantity: | E1 |
| IATA-packing instructions - Passenger: | 355 |
| IATA-max. quantity - Passenger: | 60 L |
| IATA-packing instructions - Cargo: | 366 |
| IATA-max. quantity - Cargo: | 220 L |

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: NATURAL ISOAMYL BUTYRATE

Special precautions for user

Warning: Combustible liquid.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

15. Regulatory information

U.S. Regulations

National regulatory information

SARA Section 311/312 Hazards:

NATURAL ISOAMYL BUTYRATE (106-27-4): Fire hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

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Abbreviations and acronyms

ADR: Accord européen sur le transport 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 Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAAG: Medical First Aid Guide
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Other data

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.