

according to UN GHS (ST/SG/AC.10/11/Rev.9)

## **NATURAL ISOAMYL BUTYRATE**

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

NATURAL ISOAMYL BUTYRATE

Substance name: NATURAL ISOAMYL BUTYRATE

CAS No: 106-27-4

## 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

For Flavour use for food and feed only

### 1.3. 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: Andreas Goertz Telephone: + 49 2822 68561 37

e-mail: andreas.goertz@axxence.com

Internet: www.axxence.de
Responsible Department: QM - Regulatory Affairs

1.4. Emergency telephone +49 2822 68561 99

number:

#### **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

### UN GHS (ST/SG/AC.10/11/Rev.9)

Flammable liquid: Flam. Liq. 3

Hazardous to the aquatic environment: Aquatic Acute 2 Hazardous to the aquatic environment: Aquatic Chronic 2

### 2.2. Label elements

## UN GHS (ST/SG/AC.10/11/Rev.9)

Signal word: Warning

Pictograms:





### **Hazard statements**

H226 Flammable liquid and vapour.

H411 Toxic to aquatic life with long lasting effects.

# Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.
P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.



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P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water or shower.

P370+P378 In case of fire: Use Carbon dioxide (CO2), Extinguishing powder, Foam to extinguish.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to .

#### 2.3. Other hazards

No information available.

## **SECTION 3: Composition/information on ingredients**

### 3.1. Substances

Sum formula: C9 H18 O2 Molecular weight: 158,24

#### **Hazardous components**

CAS No	Chemical name	Quantity
	Classification (UN GHS (ST/SG/AC.10/11/Rev.9))	
106-27-4	NATURAL ISOAMYL BUTYRATE	100 %
	Flam. Liq. 3, Aquatic Acute 2, Aquatic Chronic 2; H226 H401 H411	

### **SECTION 4: First aid measures**

#### 4.1. 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 of water.

### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

### Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder.

## Unsuitable extinguishing media

Water.

## 5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air.

### 5.3. Advice for firefighters

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.



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#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

Remove all sources of ignition.

#### 6.2. Environmental precautions

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

### 6.3. 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.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### **SECTION 7: Handling and storage**

### 7.1. 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. Vapours can 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.

## 7.2. 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.

### **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

### 8.2. Exposure controls









### Individual protection measures, such as personal protective equipment

## Eye/face protection

Wear eye/face protection.



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#### 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.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: colourless
Odour: fruity

Melting point/freezing point:

-73 °C

Boiling point or initial boiling point and

178 °C

boiling range:

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: 0,268 q/L

(at 25 °C)

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: 3,99
Vapour pressure: 1,26 hPa

(at 20 °C)

Vapour pressure: 7,82 hPa

(at 50 °C)

Density (at 20 °C): 0,88 g/cm³
Relative vapour density: 5,45

(at 20 °C)

### 9.2. 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%

### **SECTION 10: Stability and reactivity**





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#### 10.1. Reactivity

Flammable.

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

### 10.5. Incompatible materials

No information available.

#### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

#### Acute toxicity

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

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

#### Irritation and corrosivity

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

### Sensitising effects

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

### Carcinogenic/mutagenic/toxic effects for reproduction

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**

No information available.

## **SECTION 12: Ecological information**

### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.



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CAS No	Chemical name						
	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		Daphnia magna (Big water flea)	REACH registration	OECD 202
	Acute bacteria toxicity	(EC50 mg/l)	3070	3 h	Activated sludge	SDS MERCK	

### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name						
	Method	Value	d	Source			
	Evaluation						
106-27-4	NATURAL ISOAMYL BUTYRATE						
	OECD 301	63%	28	REACH registration			
	readily biodegradable but failing 10-day window	but failing 10-day window					
	OECD 301	43%	14	4 REACH registration			
	readily biodegradable but failing 10-day window						
	OECD 301	25%	3	REACH registration			
	readily biodegradable but failing 10-day window		-	•			

### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-27-4	NATURAL ISOAMYL BUTYRATE	3,99

## 12.4. Mobility in soil

The product has not been tested.

### 12.6. Endocrine disrupting properties

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

### 12.7. 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.

## **SECTION 13: Disposal considerations**

## 13.1. 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.

### **SECTION 14: Transport information**



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#### Marine transport (IMDG)

14.1. UN number or ID number: UN 2620

14.2. UN proper shipping name: AMYL BUTYRATES

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Special Provisions:

Limited quantity:

Excepted quantity:

EmS:

5 L

E1

F-E, S-D

### Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2620

**14.2. UN proper shipping name:** AMYL BUTYRATES

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Limited quantity Passenger: 10 L
Passenger LQ: Y344
Excepted quantity: E1

IATA-packing instructions - Passenger:355IATA-max. quantity - Passenger:60 LIATA-packing instructions - Cargo:366IATA-max. quantity - Cargo:220 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: NATURAL ISOAMYL BUTYRATE

### 14.6. Special precautions for user

Warning: Combustible liquid.

### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### **SECTION 15: Regulatory information**

#### **National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

#### **SECTION 16: Other information**

#### 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





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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 MFAG: 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).

### **Further Information**

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.