

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL 3-METHYL BUTANOL

Revision date: 09/28/2022

Product code: 205710US

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#### 1. Identification

##### Product identifier

NATURAL 3-METHYL BUTANOL

Substance name: NATURAL ISOAMYL ALCOHOL  
 CAS No: 123-51-3

##### 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:	Andreas Goertz	Telephone: + 49 2822 68561 37
e-mail:	andreas.goertz@axxence.com	
Internet:	www.axxence.de	
Responsible Department:	QM - Regulatory Affairs	

**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  
 Acute toxicity: Acute Tox. 4 (inhalation)  
 Skin corrosion/irritation: Skin Irrit. 2  
 Serious eye damage/eye irritation: Eye Dam. 1  
 Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)

##### Label elements

###### **29 CFR Part 1910.1200**

**Signal word:** Danger

**Pictograms:**



##### **Hazard statements**

Flammable liquid and vapor  
 Causes skin irritation  
 Causes serious eye damage  
 Harmful if inhaled  
 May cause respiratory irritation

##### **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.

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Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash hands thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin: Wash with plenty of Water and soap.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Immediately call a poison center/doctor.  
In case of fire: Use Water spray jet / Carbon dioxide (CO<sub>2</sub>) / Extinguishing powder / Foam to extinguish.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container to Organic waste.

**Hazards not otherwise classified**

No information available.

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

Sum formula: C<sub>5</sub> H<sub>12</sub> O  
Molecular weight: 88,15

**Hazardous components**

CAS No	Components	Quantity
123-51-3	NATURAL ISOAMYL ALCOHOL	100 %

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

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

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

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#### **Suitable extinguishing media**

Water spray jet, Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder.

#### **Specific hazards arising from the chemical**

Flammable. Vapors may form explosive mixtures with air.

#### **Special protective equipment and precautions for fire-fighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Use water spray/stream to protect personnel and to cool endangered containers. Suppress gases/vapors/mists with water spray jet. 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. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### **Environmental precautions**

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

#### **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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

##### **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**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. 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 locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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#### Hints on joint storage

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

### 8. Exposure controls/personal protection

#### Control parameters

#### Exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
123-51-3	Isoamyl alcohol (primary)	100	360		TWA (8 h)	REL
		125	450		STEL (15 min)	REL
123-51-3	Isoamyl alcohol	100			TWA (8 h)	ACGIH-2022
		125			STEL (15 min)	ACGIH-2022
123-51-3	Isomyl alcohol (primary and secondary)	100	360		TWA (8 h)	PEL

#### Exposure controls



#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

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

##### Eye/face protection

Suitable eye protection: goggles.

##### 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. Suitable gloves type: Butyl caoutchouc (butyl rubber) / FKM (fluoro rubber)

##### Skin protection

Use of protective clothing.

##### 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:	Fusel, alcohol, whiskey, banane	
Melting point/freezing point:		-117 °C
Boiling point or initial boiling point and boiling range:		132 °C
Flammability		
Solid/liquid:		not applicable
Gas:		not applicable
Lower explosion limits:		1,2 vol. %
Upper explosion limits:		10,5 vol. %

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Flash point:	42 °C
Auto-ignition temperature:	340 °C
Decomposition temperature:	not determined
pH-Value (at 25 °C):	5,6
Water solubility: (at 20 °C)	28 g/L
Solubility in other solvents not determined	
Partition coefficient n-octanol/water:	1,28
Vapor pressure: (at 20 °C)	2,7 hPa
Vapor pressure: (at 50 °C)	45 hPa
Density (at 20 °C):	0,81 g/cm <sup>3</sup>
Relative vapour density: (at 20 °C)	3,04

#### Other information

##### **Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

##### **Other safety characteristics**

Evaporation rate: not determined

Solid content: 0

Viscosity / dynamic:  
(at 20 °C) 4,3 mPa·s

## 10. Stability and reactivity

#### Reactivity

Flammable.

#### Chemical stability

The product is stable under storage at normal ambient temperatures.

#### Possibility of hazardous reactions

Hazardous reactions: May occur

Exothermic reaction with: Oxidising agent. Formation of explosive mixtures with: Air.

#### Conditions to avoid

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

Harmful if inhaled

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CAS No	Components				
	Exposure route	Dose	Species	Source	Method
123-51-3	NATURAL ISOAMYL ALCOHOL				
	oral	LD50 >5000 mg/kg	Rat	REACH Registration	OECD 401
	dermal	LD50 3216 mg/kg	Rabbit	REACH Registration	OECD 402
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

#### **Irritation and corrosivity**

Causes skin irritation  
Causes serious eye damage

#### **Sensitizing 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.

#### **Specific target organ toxicity (STOT) - single exposure**

May cause respiratory irritation (NATURAL ISOAMYL ALCOHOL)

#### **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.

#### **Further information**

This substance is classified as hazardous according to Regulation (EC) No 1272 (2008).

## 12. Ecological information

#### **Ecotoxicity**

The product is not: Ecotoxic.

#### **Persistence and degradability**

The product has not been tested.

#### **Bioaccumulative potential**

The product has not been tested.

#### **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**

Avoid release to the environment.

## 13. Disposal considerations

#### **Waste treatment methods**

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#### Disposal recommendations

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

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### 14. Transport information

#### U.S. DOT 49 CFR 172.101

<b><u>UN number or ID number:</u></b>	UN 1105
<b><u>Proper shipping name:</u></b>	PENTANOLS
<b><u>Transport hazard class(es):</u></b>	3
<b><u>Packing group:</u></b>	III
Hazard label:	3



#### Marine transport (IMDG)

<b><u>UN number or ID number:</u></b>	UN 1105
<b><u>UN proper shipping name:</u></b>	PENTANOLS
<b><u>Transport hazard class(es):</u></b>	3
<b><u>Packing group:</u></b>	III
Hazard label:	3



Special Provisions:	223
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-D

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

<b><u>UN number or ID number:</u></b>	UN 1105
<b><u>UN proper shipping name:</u></b>	PENTANOLS
<b><u>Transport hazard class(es):</u></b>	3
<b><u>Packing group:</u></b>	III
Hazard label:	3



Special Provisions:	A3	
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: No

#### Special precautions for user

Warning: Combustible liquid.

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**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 ALCOHOL (123-51-3): Fire hazard, Immediate (acute) health 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****Changes**

Revision date: 28.09.2022

Revision No: 103

This data sheet contains changes from the previous version in section(s): 8.

**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

MFAG: Medical First Aid Guide

ICAO: International Civil Aviation Organization



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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.