

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**NATURAL 1-BUTANETHIOL**

Revision date: 01/22/2025

Product code: 347800US

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**1. Identification****Product identifier**

NATURAL 1-BUTANETHIOL

Substance name: NATURAL 1-BUTANETHIOL  
CAS No: 109-79-5

**Recommended use of the chemical and restrictions on use****Use of the substance/mixture**

Manufacturing of: - Air care products - Perfumes, fragrances - Pharmaceuticals - Cosmetics, personal care products - Flavouring Substances - Other

**Details of the supplier of the safety data sheet**

Company name: Axxence Aromatic GmbH  
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Place: D-46446 Emmerich am Rhein  
Telephone: + 49 2822 68561 0  
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**Emergency phone number:** +49 2822 68561 99**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Flammable liquids: Flam. Liq. 2  
Acute toxicity: Acute Tox. 4 (inhalation)  
Acute toxicity: Acute Tox. 4 (oral)  
Respiratory or skin sensitization: Skin Sens. 1

**Label elements****29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

Highly flammable liquid and vapor  
Harmful if swallowed or if inhaled  
May cause an allergic skin reaction

**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.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash hands thoroughly after handling.

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Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If swallowed: Call a poison center/doctor if you feel unwell.  
Rinse mouth.  
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 or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
In case of fire: Use Water spray jet / Dry extinguishing powder / Foam / Carbon dioxide (CO<sub>2</sub>) to extinguish.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container to Organic waste.

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

Sum formula: C<sub>4</sub> H<sub>10</sub> S  
Molecular weight: 90,1888 g/mol

**Relevant ingredients**

CAS No	Components	Quantity
109-79-5	NATURAL 1-BUTANETHIOL	100%

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

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

**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. Medical treatment necessary.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink 1 glass of water. Medical treatment necessary.

**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 (CO<sub>2</sub>), Foam, Extinguishing powder.

**Unsuitable extinguishing media**

Water.

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#### Specific hazards arising from the chemical

Highly 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 jet 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.

#### 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.

#### 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 limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	Category	Origin
109-79-5	Butyl mercaptan	10	35	TWA (8 h)	PEL
109-79-5	n-Butyl mercaptan	C 0.5	C 1.8	15 min	REL
		0.5	1.8	TWA (8 h)	ACGIH-2024

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#### 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.

#### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

#### **Thermal hazards**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

## 9. Physical and chemical properties

#### Information on basic physical and chemical properties

Physical state:	Liquid	
Color:	Colourless to pale yellow	
Odor:	Sulfurous	
Melting point/freezing point:		-116 °C
Boiling point or initial boiling point and boiling range:		98 °C
Flammability:		not determined
Lower explosion limits:		1,4 vol. %
Upper explosion limits:		4436 vol. %
Flash point:		12,78 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value:		not determined
Viscosity / kinematic:		not determined
Water solubility:		0,597 g/l
(at 20 °C)		
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		not determined
Vapor pressure:		40 hPa
(at 20 °C)		
Vapor pressure:		190 hPa
(at 50 °C)		
Density:		0,833-0,851 g/cm³
Relative vapour density:		3,11
Particle characteristics:		not applicable

#### Other information

Information with regard to physical hazard classes

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**Explosive properties**

The product is not: Explosive.

**Oxidizing properties**

The product is not: oxidising.

## 10. Stability and reactivity

**Reactivity**

Highly 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 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 swallowed

Harmful if inhaled

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
109-79-5	NATURAL 1-BUTANETHIOL				
	oral	LD50 mg/kg	1500	Rat	GESTIS
	inhalation (4 h) vapour	LC50	14,8 mg/l	Rat	GESTIS
	inhalation dust/mist	ATE	1,5 mg/l		

**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**

May cause an allergic skin reaction (NATURAL 1-BUTANETHIOL)

**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.

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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.

**Other information**

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

**12. Ecological information****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**

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****UN number or ID number:**

UN 2347

**Proper shipping name:**

BUTYL MERCAPTAN

**Transport hazard class(es):**

3

**Packing group:**

II

Hazard label:

3

**Marine transport (IMDG)****UN number or ID number:**

UN 2347

**UN proper shipping name:**

BUTYL MERCAPTAN

**Transport hazard class(es):**

3

**Packing group:**

II

Hazard label:

3

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Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-E, S-D

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

**UN number or ID number:** UN 2347  
**UN proper shipping name:** BUTYL MERCAPTAN  
**Transport hazard class(es):** 3  
**Packing group:** II  
 Hazard label: 3



Limited quantity Passenger: 1 L  
 Passenger LQ: Y341  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 353  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 364  
 IATA-max. quantity - Cargo: 60 L

#### Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 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 1-BUTANETHIOL (109-79-5): 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

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**Abbreviations and acronyms**

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  
EC/EEC: European Community/European Economic Community  
EU: European Union  
CAS: Chemical Abstracts Service  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
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  
M-factor: Multiplication factor  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
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)  
IMDG: International Maritime Code for Dangerous Goods  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
IATA: International Air Transport Association  
DGR: Dangerous Goods Regulations  
ICAO: International Civil Aviation Organization  
TI: Technical Instructions  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: volatile organic compound  
SVHC: Substance of Very High Concern  
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.