

# SAFETY DATA SHEET

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

### Product identifiers

Product name : Sodium butyrate solution (500mM)

### Relevant identified uses of the substance or mixture

For research use only. Not for human or animal therapeutic or clinical diagnostic use.

### Details of the supplier of the safety data sheet

Montana Molecular  
366 Gallatin Park Drive, Unit A  
Bozeman, MT 59715

### Emergency telephone

Emergency Phone #. In case of emergency contact CHEMTREC. 24 Hours/day; 7 Days/week

CHEMTREC (USA): 800-424-9300

CHEMTREC (International) +1-703-527-3887

## SECTION 2: Hazards identification

### Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H314 Causes skin corrosion (Category 1B)

H318 Causes serious eye damage (Category 1)

### GHS Label elements, including precautionary statements

#### Pictogram



#### Signal Word

Danger

#### Precautionary Statements

P264 Wash skin thoroughly after handling.

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

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 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.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS**  
none

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

#### **Mixtures**

Chemical name	CAS number	Concentration
Butyric acid	107-92-6	>= 5 - < 10 % (500 mM)

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

#### **Description of first-aid measures**

##### **General advice**

Show this safety data sheet to first responders and physicians.

##### **Inhalation**

Remove to fresh air. Seek medical attention.

##### **Skin contact**

Immediately remove all contaminated clothing. Rinse skin with water/ shower. Seek medical attention.

##### **Eye contact**

Rinse out with plenty of water. Remove contact lenses. Seek medical attention.

##### **If swallowed**

Drink water, avoid vomiting. Call a physician immediately. Do not attempt to neutralize.

##### **Most important symptoms and effects, both acute and delayed**

See section 11

##### **Indication of any immediate medical attention and special treatment needed**

No data available

## **SECTION 5: Firefighting measures**

### **Extinguishing media**

#### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Unsuitable extinguishing media**

No information available.

### **Special hazards arising from the substance or mixture**

Carbon oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

### **Special protective equipment and precautions for firefighters**

Wear self-contained breathing apparatus and full protective gear. Thermal decomposition can release irritating gasses.

### **Further information**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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

### **Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

### **Environmental precautions**

Do not let product enter drains.

### **Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material.

Dispose of properly. Clean up affected area.

### **Reference to other sections**

For disposal see section 13.

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

### **Precautions for safe handling**

For precautions see section 2

### **Conditions for safe storage, including any incompatibilities**

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Store at 2-8°C.

**Storage class**

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

**SECTION 8: Exposure controls/personal protection****Control parameters****Ingredients with permissible exposure limits**

Contains no substances with permissible exposure limits.

**Exposure controls****Appropriate engineering controls**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

**Personal protective equipment****Eye/face protection**

Tightly fitting safety goggles

**Skin protection**

Wear appropriate protective gloves to prevent skin exposure

**Body Protection**

protective clothing

**Respiratory protection**

Recommended Filter type: Filter type ABEK

Required when vapours/aerosols are generated.

Filtering recommendations are based on: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

**SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties**

Appearance	Form: liquid
	Color: colorless
Odor	characteristic
Odor Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Density	No data available
Relative density	No data available
Water solubility	soluble

Partition coefficient: n-octanol/water	No data available
Autoignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none

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

### **Reactivity**

No data available

### **Chemical stability**

Stable under normal conditions.

### **Possibility of hazardous reactions**

Violent reactions possible with known reaction partners of water.

### **Conditions to avoid**

No data available

### **Incompatible materials**

No data available

### **Hazardous decomposition products**

In the event of fire see section 5

## **SECTION 11: Toxicological information**

### **Acute toxicity**

Acute toxicity estimate Oral - > 5,000 mg/kg

(Calculation method)

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:., damage of respiratory tract

Dermal: No data available

### **Skin corrosion/irritation**

Remarks: Mixture causes burns.

### **Serious eye damage/eye irritation**

Remarks: Mixture causes serious eye damage.

Risk of blindness.

### **Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Components****butyric acid****Acute toxicity**

LD50 Oral - Rat - male and female - 1,632 mg/kg

(OECD Test Guideline 401)

Inhalation: No data available

Inhalation: Corrosive to respiratory system.

LD50 Dermal - Rabbit - male - 6,096 mg/kg

(OECD Test Guideline 402)

**Skin corrosion/irritation**

Skin - Rabbit

Result: Causes burns. - 1 h

(OECD Test Guideline 404)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Irreversible effects on the eye - 8 Days

Remarks: (IUCLID)

Remarks: Causes serious eye damage.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

Test Type: Ames test

Test system: S. typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster lung cells

Result: negative

**Carcinogenicity****IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Specific target organ toxicity - single exposure**

May cause respiratory irritation. - Respiratory Tract

**SECTION 12: Ecological information**

**Aquatic or terrestrial toxicity**

**Components**

**butyric acid**

Toxicity to fish	Static test LC50 - Pimephales promelas (fathead minnow) - 77 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 51.25 mg/l - 48 h (DIN 38412)
Toxicity to algae	IC50 - Desmodesmus subspicatus (green algae) - 46.7 mg/l - 72 h Remarks: (IUCLID)
Toxicity to bacteria	static test EC10 - Pseudomonas putida - 51 mg/l - 18 h (DIN 38 412 Part 8) static test EC50 - Pseudomonas putida - 78 mg/l - 18 h (DIN 38 412 Part 8)

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

No data available

**SECTION 13: Disposal considerations**

**Product**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. Handle uncleaned containers like the product itself.

**SECTION 14: Transport information**

**UN/NA Number:**

3265 Class: 8 Packing group: II

**UN/NA proper shipping name:**

Corrosive liquid, acidic, organic, n.o.s. (butyric acid)

**DOT (US)**

UN number: 3265 Class: 8 Packing group: II

Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (butyric acid)

Poison Inhalation Hazard: No

**IMDG**

UN number: 3265 Class: 8 Packing group: II EMS-No: F-A, S-B

Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid)

**IATA**

UN number: 3265 Class: 8 Packing group: II

Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (butyric acid)

**SECTION 15: Regulatory information**

**CERCLA Reportable Quantity**

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

Not applicable

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

butyric acid 107-92-6 >= 5 - < 10 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

butyric acid 107-92-6 >= 5 - < 10 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

**US State Regulations**

**Massachusetts Right To Know**

water 7732-18-5  
butyric acid 107-92-6

**Pennsylvania Right To Know**

butyric acid 107-92-6

**Maine Chemicals of High Concern**

water 7732-18-5

**Vermont Chemicals of High Concern**

water 7732-18-5

**Washington Chemicals of High Concern**

water 7732-18-5

**The ingredients of this product are reported in the following inventories:**

TSCA : All substances listed as active on the TSCA inventory

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**SECTION 16: Other information**

**Disclaimer**

The information is believed to be correct to the best of our knowledge at the date published. The document is designed solely as a guideline. It does not represent any guarantee of the properties of the product. Montana Molecular, LLC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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