

# MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH)

## 1. Identification of the Product and of the Company

Product: BÜHLMANN Amanitin ELISA (EK-AM1) Product use: In vitro diagnostic reagents for determination of  $\alpha$ - and  $\gamma$ -Amanitin in human urine, serum and plasma.

Substance name: Sulfuric acid CAS No.: 7664-93-9

Company: **BÜHLMANN Laboratories AG**  
Baselstrasse 55  
CH-4124 Schönenbuch, Switzerland  
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Open from 08.30 until 17.00

## 2. Hazardous identification

Sulfuric acid

### 2.1 Classification of the ingredients

Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL and/or M-factor	Classification procedure
Corrosive to metals, Category 1, H290 Skin corrosion, Category 1A, H314	-	Practical experience / human evidence Practical experience / human evidence

#### 2.1.1 Additional information

Full text of R-, H- and EUH-phrases: see section 16.

### 2.2 Label elements

#### 2.2.1 Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Product identifier:

Mixtures: B-STs

Hazard components for labeling: Sulfuric acid

Hazard pictograms:



**GHS05**

Signal word: Danger

Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

## Precautionary statements:

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): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water/shower.P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.P308+P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/  
physician.

## 2.3 Other hazards

None known

**3. Composition/information on ingredients**

## 3.1 Description of the mixture

Aqueous solution of B-STs.

## 3.1.1 Hazardous ingredients

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification according Regulation (EC) No. 1272 [CLP]
Sulfuric acid	7664-93-9	016-020-00-8	231-639-5	25.76g/kg	Corrosive to metals, Category 1, H290 Skin corrosion, Category 1A, H314

## 3.1.2 Additional information

Full text of R-, H- and EUH-phrases: see section 16.

This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according to CLP regulation.

**4. First aid Measures**

## 4.1 Description of first aid measures

## 4.1.1 General informations

First aider needs to protect himself.

## 4.1.2 Following inhalation

Fresh air. Call in physician.

## 4.1.3 Following skin contact

Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

## 4.1.4 Following eye contact

Rinse out with plenty of water. Immediately call in ophthalmologist.

## 4.1.5 Following ingestion

Make victim drink water (two glasses at most), avoid vomiting (risk of perforation).

Call a physician immediately. Do not attempt to neutralise.

## 4.1.6 Self-protection of the first aider

First aider needs to protect himself.

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

Symptoms: Irritation and corrosion, Cough, Shortness of breath, Nausea, Vomiting,  
Diarrhea, pain.

Effects: Risk of blindness!

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

Notes for the doctor: No information available.  
Special treatment: No information available.

### 5. Firefighting measures

Only applicable if in the storage room is a big quantity (more than 2000) of BÜHLMANN Amanitin ELISA Kit

#### 5.1 Extinguishing media

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

Unsuitable extinguishing media: For this substance/mixture no limitations of extinguishing agents are given.

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

Hazardous combustion products: Not combustible. Ambient fire may liberate hazardous vapours.  
Fire may cause evolution of: Sulphur oxides

#### 5.3 Advice for fire-fighters

Special protective equipment for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### 5.4 Additional information

Cool closed containers exposed to fire with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Suppress (knock down) gases/vapours/mists with a water spray jet.

### 6. Accidental Release Measures

Only applicable if the release in the room came from a big quantity (more than 2000) of BÜHLMANN Amanitin ELISA Kit

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

##### 6.1.1 For non-emergency personnel

Protective equipment: Protective equipment see section 8.

Emergency procedures: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert.

##### 6.1.2 For emergency responders

Personal protective equipment: Gloves

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and material for containment and cleaning up

##### 6.3.1 For containment

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10).

##### 6.3.2 For cleaning up

Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H<sup>+</sup>, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Observe label precautions. Use protective gloves.

#### 7.1.1 Protective measures

Advice on safe handling: Avoid contact with skin, eyes and clothing.

#### 7.1.2 Advice on general occupational hygiene

Change contaminated clothing and immerse in water. Wash skin after came into direct contact with the substance.

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

Technical measures and storage conditions: Tightly closed. Dry.  
Recommended storage temperature see product label.

Requirements for storage rooms and vessels: No metal containers.

## 8. Exposure control/personal protection

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374

### 8.1 Exposure controls

Do not let product enter drains.

#### 8.1.1 Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

#### 8.1.2 Personal protective equipment

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

##### 8.1.2.1 Eye / Face protection

Suitable eye protection: Tightly fitting safety goggles

##### 8.1.2.2 Skin protection

Hand protection: Gloves

##### 8.1.2.3 Respiratory protection

Required when vapours/aerosols are generated if the release in the room came from a big quantity (more than 2000) of BÜHLMANN Amanitin ELISA Kit.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

## 9. Physical and Chemical Properties

Reagent	Appearance	Odour	Boiling Point	pH	Rel. Density	Solubility in Water
B-ST5	clear, colourless solution	odourless	~100 °C	< 1	~1 g/ml	soluble

## 10. Stability and reactivity

### 10.1 Reactivity

Has a corrosive effect

## 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

## 10.3 Possibility of hazardous reactions

A risk of toxic gas formation exists with the following substances:

Alkali metals, alkali compounds, Ammonia, Aldehydes, acetonitrile, Alkaline earth metals, alkalines, Acids, alkaline earth compounds, Metals, metal alloys, Oxides of phosphorus, phosphorus, hydrides, halogen-halogen compounds, oxyhalogenic compounds, permanganates, nitrates, carbides, combustible substances, organic solvent, acetylidene, Nitriles, organic nitro compounds, anilines, Peroxides, picrates, nitrides, lithium silicide, iron(III) compounds, bromates, chlorates, Amines, perchlorates, hydrogen peroxide

## 10.4 Conditions to avoid

No information available

## 10.5 Incompatible materials

Animal/vegetable tissues, Metals  
Contact with metals liberates hydrogen gas.

## 10.6 Hazardous decomposition products

In the event of fire: See section 5.

# 11. Toxicological Information

## 11.1 Information on toxicological effects

Substance: Sulfuric acid

	Effect dose / -concentration	Species	Method	Symptoms / delayed effects	Remark
Acute oral toxicity	LD50: 2140 mg/kg	Rat	-	-	-
Acute inhalative toxicity (gas)	LC50: 510 mg/m <sup>3</sup> in 2h	Rat	-	-	-
Acute inhalative toxicity (gas)	LC50: 320 mg/m <sup>3</sup> in 2h	Mouse	-	-	-

### 11.1.1 Substances

Skin irritation: Causes severe burns.  
Eye irritation

# 12. Ecological Information

No information available

## 12.1 Toxicity

Toxicity to fish mortality LC50 - Bluegill/Sunfish - 49 mg/l - 48 h

## 12.2 Persistence and degradability

No information available

## 12.3 Bioaccumulative potential

no information available

## 12.4 Mobility in soil

No information available

## 12.5 Results of PBT and vPvB assessment

Substance 1

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

## 12.6 Other adverse effects

### Substance 1

Forms corrosive mixtures with water even if diluted.

Harmful effect due to pH shift.

Endangers drinking-water supplies if allowed to enter soil or water.

## 12.7 Additional ecotoxicological information

### Substance 1

Discharge into the environment must be avoided if solution is not neutralized

## 13. Disposal

### 13.1 Waste treatment methods

Neutralize solution with an alkali to pH 7

#### 13.1.1 Product / Packaging disposal

Packaging material should be disposed according to local State and Federal regulations.

## 14. Transportation Information

### Substance 1

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA- DGR)
14.1 UN No.	1830	1830	1830	1830
14.2 UN Proper shipping name	Sulphuric Acid	Sulphuric Acid	Sulphuric Acid	Sulphuric Acid
14.3 Transport hazard class(es)	8	8	8	8
Hazard label(s)	-	-	-	-
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	-	-	-	-

## 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Not applicable

#### 15.1.1 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

## 16. Other information

Full text of H and R-Statements referred to under different sections of this document.

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

R35

Causes severe burns.

Precautionary statements:

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): Remove/Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P310

IF exposed or concerned: immediately call a POISON CENTER or doctor/physician.

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability for its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

### 16.1 Training advice

Provide adequate information, instruction and training for operators.