



# SAFETY DATA SHEET

## 1. Identification:

**Product Identifier:** Sulfuric Acid, various aqueous solutions

**Product code:** BS8477-5.00 N      BS8909- 18.0 N      BS8875- 20% (w/v)  
BS8539-6.00 N      BS8735- 20% (v/v)      BS8457- 20% (w/w)  
BS8851-10.00 N      BS8547- 25% (v/v)      BS8880- 25% (w/w)  
BS8930- 11.00 N      BS4540- 50% (v/v)      BS8932- 50 % (w/w)

**Synonym(s):** Sulfuric Acid, Solution

**Recommended use:** Manufacture of other chemical products, professional, scientific, and technical activities.

**Recommended restrictions:** None known.

### Manufacturer/Supplier/Distributor Information

**Company name:** Biopharm Inc.

**Address:** 187 South Tilley Road  
Hatfield, AR 71945

**Telephone:** (870) 389-6114

**Website:** www.bphchem.com

**E-mail:** support@bphchem.com

**Emergency phone number:** Chemtrec 800-424-9300

## 2. Hazard(s) identification:

**Classification:** This chemical is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Toxicity - Inhalation	Category 2
Skin Corrosion / Irritation	Category 1
Eye Damage / Irritation	Category 1
Carcinogenicity	Category 1
Specific Target Organs/Systemic Toxicity Following Single Exposure	Category 1
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 1

**Label elements:**



**Signal word:** Danger

**Hazard statement:** Corrosive! Contact with liquid causes severe burns. Contact with liquid or vapor causes severe eye burns and irreversible eye damage. Causes severe irritation to the respiratory tract. Causes damage to the digestive tract. Cancer hazard: contains sulfuric acid, which is listed as an animal pulmonary carcinogen.

**Precautionary statement:**

**Prevention** Use only outdoors or in a well-ventilated area or chemical fume hood. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection. Wash thoroughly after handling. Keep away from heat, sparks, and open flame. Replace cap when not in use.

**Response** IF EXPOSED OR CONCERNED: Get medical advice/attention. Call a physician or poison control center if you feel unwell.  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. If swallowed: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, seek medical advice/attention.

**Storage** Store bottles tightly capped and upright. Keep in a cool place. Store locked up.

**Disposal** To be performed in compliance with all current local, state and federal regulations.

**Hazard(s) not otherwise classified (HNOC):** None known.

**Supplemental information:** No information available.

### 3. Composition/information on ingredients

**Mixtures**

<u>Chemical Name</u>	<u>CAS number</u>	<u>%</u>
Sulfuric Acid	7664-93-9	13 - 55
Water	7732-18-5	balance

### 4. First-aid measures

**Inhalation:** Remove to fresh air. Give artificial respiration if not breathing. Have trained personnel administer oxygen if breathing is difficult. Call a physician.

**Ingestion:** Call a physician or poison control center immediately. Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs.

**Skin contact:** Immediately flush with cool, running water for at least 15 minutes. Seek medical advice if irritation occurs.

**Eye contact:** While holding lids gently, but firmly apart, irrigate eyes with cool, clear running water for several minutes. Seek medical care.

<b>Most important symptoms/effects, acute and delayed:</b>	Corrosive liquid. Causes severe burns. Eye contact causes tissue damage and blindness. Ingestion causes corrosion of the mucosa of the mouth, throat and esophagus with stomach discomfort and pain. If ingested, dilute with large quantity of water. Do not induce vomiting. Call a physician. Wash areas of contact with plenty of water for at least 15 minutes. If possible, wipe off areas of contact with dry cloth before flushing with water, as water contact will generate heat. EYE CONTACT: Eye contact causes tissue damage and blindness. SKIN CONTACT: Skin contact causes burns, blistering, local necrosis, and membrane ulceration. Burns may be 2nd or 3rd degree. CHRONIC EFFECTS / CARCINOGENICITY: May affect the skin, liver, kidneys and blood.
<b>General information:</b>	Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media:</b>	Alcohol-resistant foam. Carbon dioxide. Dry chemical powder. Water fog. Sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media:</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Not combustible. Strong dehydrating agent, which may cause ignition of finely divided materials on contact. Reaction with metals may produce hydrogen gas. Oxides of sulfur may be produced in fire.
<b>Special protective equipment and precautions for firefighters</b>	Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.
<b>Fire-fighting equipment/instructions</b>	Firefighters should wear full protective gear. Evacuate the area promptly. Fight fire from upwind to avoid exposure to combustion products. Cool containers/tanks with water spray. Do not get water inside container. Move containers from fire area if it can be done without risk. Prevent fire-extinguishing water from contaminating surface water or the ground water system.

## 6. Accidental release measures

<b>Personal precautions, protective equipment, and emergency procedures:</b>	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep out of low areas. Ensure adequate ventilation. Avoid inhalation of vapors or mists.
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**Methods and materials for containment and cleaning up:**

Ventilate the contaminated area. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Dike the spilled material where this is possible. Stop leak if it can be done without risk. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth, and place into containers. Prevent entry into waterways, sewer, basements, or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb spillage with noncombustible, absorbent material. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for reuse. For waste disposal, refer to section 13 of the SDS. Contaminated absorbent material may pose the same hazards as the spilled product. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**Environmental precautions:**

Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses, or onto the ground. Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

**7. Handling and storage****Precautions for safe handling:**

Vapors may form explosive mixtures with air. Keep away from sources of ignition. NO SMOKING. Do not handle, store, or open near an open flame, sources of heat or sources of ignition. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices.

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

Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight.

**8. Exposure controls/personal protection****Exposure Guidelines:****Component****ACGIH TLV****OSHA PEL**

Sulfuric Acid

0.2 mg/m<sup>3</sup> (TWA)1 mg/m<sup>3</sup> (TWA)**Engineering measures:**

In case of insufficient ventilation, use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Wear protective eyeglasses or chemical safety goggles.

**Skin and body protection:**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment.

**Hygiene measures:**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

<b>Appearance:</b>	Clear, colorless liquid
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	No data available
<b>Vapor Pressure (mm Hg):</b>	No data available
<b>Vapor density (Air = 1):</b>	No data available
<b>pH:</b>	No data available
<b>Relative density:</b>	No data available
<b>Melting point/freezing point:</b>	No data available
<b>Solubility in Water:</b>	Infinite
<b>Boiling Point (°F):</b>	No data available
<b>Flash point: (Closed cup)</b>	Non-flammable
<b>Evaporative Rate (H<sub>2</sub>O = 1):</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower</b>	No data available
<b>Flammability limit - upper</b>	No data available
<b>Explosive limit – lower</b>	No data available
<b>Explosive limit - upper</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available
<b>Other information:</b>	
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	No data available
<b>Percent Volatile by Volume:</b>	No data available

## 10. Stability and reactivity

<b>Reactivity:</b>	Thermal decomposition generates: Corrosive vapours.
<b>Chemical stability:</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization will not occur.
<b>Conditions to avoid:</b>	Excessive heat or flame.
<b>Incompatible materials:</b>	Metals. Cyanides. Strong bases.
<b>Hazardous decomposition products:</b>	Sulfur compounds. Thermal decomposition generates: Corrosive vapours.

## 11. Toxicological information

### Information on likely routes of exposure:

<b>Ingestion:</b>	May cause irritation, nausea, vomiting, and diarrhea.
<b>Inhalation:</b>	May cause drowsiness and dizziness. May cause irritation to the respiratory system.
<b>Skin Contact:</b>	May cause slight or mild irritation to the skin.

**Eye Contact:** May cause severe irritation to the eyes. Splashes may cause severe pain, eye damage and permanent blindness.

**Information on toxicological effects**

**Acute toxicity** This product is not classified as an acute toxicity hazard. See below for individual ingredient acute toxicity data.

<u>Component</u>	<u>LD<sub>50</sub> Oral</u>	<u>LD<sub>50</sub> Dermal</u>	<u>LC<sub>50</sub> Inhalation</u>
Sulfuric Acid	2140mg/kg bodyweight (Rat; Experimental value,Rat; Experimental value)	No data available	No data available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** May cause irritation, redness, pain, and possibly burns. Repeated or prolonged exposure may result in contact dermatitis or severe burns.

**Serious eye damage/irritation** May cause redness, irritation, swelling, pain, and possibly burns. Chronic exposure may result in conjunctivitis or eye damage.

**Respiratory Sensitization** Inhalation of vapor or mist may cause impaired coordination, respiratory tract irritation, coughing, and breathing difficulty. Depression of the central nervous system may occur, including dizziness, drowsiness, weakness, fatigue, nausea, headache, and eventually coma and death. May result in pain and burns of the mucous membranes of the nose, mouth, and throat.

**Skin sensitization** No data available.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

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

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**U.S. National Toxicology Program (NTP) Report on Carcinogens**

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

**Mutagenic effects** No data available.

**Reproductive effects** No data available.

**STOT – single exposure** May cause drowsiness or dizziness. May cause respiratory irritation.

**STOT – repeated exposure** Not classified as a specific target organ toxicity – repeated exposure.

**Aspiration hazard** No data available.

**Chronic effects** While there is no data on chronic exposure to this product, there exists documentation of overexposure to the component isopropanol. Isopropanol has been found to cause harm to the fetus in animal studies. Also, mild, reversible liver effects have been seen in laboratory animals. Direct relevance of these studies to humans is uncertain.

## 12. Ecological information

**Ecotoxicity:** Very toxic to aquatic life.

<b>Persistence and degradability:</b>	No data available
<b>Bioaccumulation/Accumulation:</b>	No data available
<b>Mobility in soil:</b>	No data available
<b>Other adverse effects:</b>	No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

<b>Waste disposal methods:</b>	To be performed in compliance with all current local, state and federal regulations. Spills onto sand, soil, or other absorbent may be handled by placing the affected soil into approved containers then label and store for proper treatment or disposal.
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### 14. Transport information

<b>DOT:</b>	
<b>UN number:</b>	UN2796
<b>UN proper shipping name:</b>	Sulfuric Acid Solution
<b>Hazard class(es)</b>	Class 8
<b>Subsidiary class(es)</b>	N/A
<b>Packing group</b>	II
<b>Other information</b>	Limited Quantity – One liter or less

### 15. Regulatory information

#### U.S. Federal regulations

<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated
<b>U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not Listed
<b>CERCLA Hazardous Substances List (40 CFR 302.4)</b>	Listed

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard Categories</b>	Immediate Hazard – Yes
	Delayed Hazard – No
	Fire Hazard – No
	Pressure Hazard – No
	Reactivity Hazard – No

#### Other Federal regulations

<b>Clean Air Act</b>	Not regulated
<b>Clean Water Act</b>	Not regulated
<b>California Prop 65</b>	WARNING: This product contains a chemical known to the State of California to cause cancer.

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**16. Other information, including date of preparation or last revision**

**Revision date**                      June 20, 2023

**Disclaimer**                         The statements contained herein are offered as informational data only and are believed to be correct. However, this product should be handled by persons having related technical skills, and at their own discretion and risk. Since seller has no control over the use of this product, no warranty, expressed or implied, is made and seller assumes no liability in connection with any use of this information or from contact and/or handling of this product.