

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1. Product Identifier

Product Form: Substance

Product Name: p-Toluenesulfonic acid monohydrate

CAS No: 6192-52-5

Product Code: VOLO10009

Standard InChI: InChI=1S/C7H8O3S.H2O/c1-6-2-4-7(5-3-6)11(8,9)10;/h2-5H,1H3,(H,8,9,10);1H2

1.2. Intended Use of the Product

Use of the substance/mixture: For laboratory research purposes.

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

Volochem, Inc.
2600 Hilltop Dr.
Bldg B #C211
Richmond, CA 94806
T 510.748.0159

www.volochem.com

1.4. Emergency Telephone Number

Emergency Number : 510-748-0159 (9a-5p M-F)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Skin irritation (Category 2)

Serious eye irritation (Category 2A)

Specific target organ toxicity – single exposure (Category 3)

2.2. Label Elements

GHS-US Labeling

Pictogram(s): GHS07



Signal word: Warning

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P332+P313	If skin irritation occurs: Get medical advice/attention.

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P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/ doctor if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

No additional information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name	Synonym(s)	Product Identifier
p-Toluenesulfonic acid monohydrate	PTSA; 4-Methylbenzenesulfonic acid; Benzenesulfonic acid, 4-methyl-	VOLO10009 CAS No. 6192-52-5
Sulfuric acid (<0.3%)		CAS No. 7664-93-9

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. CAUTION! Victim may be a source of contamination. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Symptoms/Injuries After Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Symptoms/Injuries After Skin Contact: May be harmful if absorbed through skin. Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes eye burns.

Symptoms/Injuries After Ingestion: May be harmful if swallowed

Chronic Symptoms: The chronic effects of this substance are unknown.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Nausea, headache, vomiting, burning sensation, cough, labored breathing, shortness of breath, sore throat, redness, pain, abdominal pain, burning sensation, and shock.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

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5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Product is not flammable. Hazardous decomposition products formed under fire conditions. – Carbon oxides, sulphur oxides.

Explosion Hazard: Product is not explosive.

Reactivity: No data available.

5.3. Advice for Firefighters

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus for fire fighting if necessary.

5.4. NFPA Rating

Health Hazard: 3

Flammability: 1

Reactivity Hazard: 0

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid.

Methods for Cleaning Up: Collect spillage. Avoid generation of dust during clean-up of spills. Clear up spills immediately and dispose of waste safely.

6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. hygroscopic

7.3. Specific End Use(s) For laboratory research purposes

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Components	CAS-No.	Value	Control Parameters	Basis
Sulfuric Acid	7664-93-9	TWA	0.2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1 mg/m ³	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

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8.2. Exposure Controls

Appropriate Engineering Controls

: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Avoid high dust concentration. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

: Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.



Hand Protection

: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection

: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Respiratory Protection

: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Skin and body protection

: Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	Solid
Appearance	No data available
Odor	No data available
Odor Threshold	No data available
pH	No data available
Relative Evaporation Rate (butylacetate=1)	No data available
Melting Point	Melting point/range: 103 - 106 °C (217 - 223 °F) - lit.
Boiling Point	No data available
Flash Point	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Relative Vapor Density at 20 °C	No data available
Relative Density	No data available
Specific Gravity	Not available
Solubility	No data available
Log Pow	No data available
Log Kow	No data available

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Viscosity, Kinematic	No data available
Viscosity, Dynamic	No data available
Explosive Properties	No data available
Oxidizing Properties	No data available
Explosive Limits	Not applicable
9.2. Other Information	No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:	Hazardous reactions will not occur under normal conditions.
10.2. Chemical Stability:	Product is stable under recommended storage conditions.
10.3. Possibility of Hazardous Reactions:	No data available
10.4. Conditions to Avoid:	No data available
10.5. Incompatible Materials:	No data available
10.6. Hazardous Decomposition Products:	Carbon oxides, sulphur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity:

Oral LD50

No data available

Inhalation LC50

Dermal LD50

No data available

Other information on acute toxicity

No data available

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: Eyes; no data available

Respiratory or Skin Sensitization: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity: Not classified

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure): No data available

Specific Target Organ Toxicity (Repeated Exposure): No data available

Aspiration Hazard: No data available

Symptoms/Injuries After Inhalation: May be harmful in inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Symptoms/Injuries After Skin Contact: May be harmful if absorbed through skin. Causes skin burns.

Symptoms/Injuries After Eye Contact: Causes eye burns.

Symptoms/Injuries After Ingestion: May be harmful if swallowed.

Chronic Symptoms: The chronic effects of this substance are unknown.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No data available

12.2. Persistence and Degradability

No data available

12.3. Bioaccumulative Potential

No data available

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12.4. Mobility in Soil

No data available

12.5. Other Adverse Effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

3: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Contact a licensed professional waste disposal service to dispose of this material. Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/IMDG/DOT

14.1.	UN Number	2585
14.2.	UN Proper Shipping Name	Aryl sulphonic acids, solid
14.3.	Transport Hazard Class(es)	8
14.4.	Packing Group	III
14.5.1.	Marine Pollutant	No
14.5.2.	Reportable Quantity	
14.6.1.	Toxic Inhalation Hazard	No
14.6.2.	Mode Specific Comments	
14.6.3.	Ground Transportation - DOT (US)	Proper shipping name: Aryl sulfonic acids, solid
14.6.4.	Marine Transportation - IMDG	EMS-No: F-A, S-B
14.6.5.	Air Transportation - IATA/ICAO	

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

EPA TSCA Inventory

p-Toluenesulfonic acid monohydrate (CAS 6192-52-5) – not listed

4-Methylbenzenesulfonic acid (CAS 104-15-4) - listed

SARA 302 Components

SARA 302. Sulfuric acid in this material is subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313. Sulfuric acid in this material is subject to the reporting requirements of SARA Title III, Section 313.

SARA 311/312 Components

Acute Health Hazard, Chronic Health Hazard

15.2 US State Regulations

California Proposition 65 List 2014

WARNING! This product contains a chemical known to the State of California to cause cancer.

Sulfuric acid

Maine Chemicals of High Concern List 2012

Not listed

Massachusetts Right to Know Hazardous Substance List 2014

p-Toluenesulfonic acid monohydrate (CAS 6192-52-5) – not listed

p-Toluenesulfonic acid (CAS 104-15-4) - listed

Sulfuric acid – listed

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New Jersey Right to Know Hazardous Substance List 2010

p-Toluenesulfonic acid monohydrate (CAS 6192-52-5) – not listed

p-Toluene sulfonic acid (CAS 104-15-4) - listed

Pennsylvania Right to Know Hazardous Substance List 2010

p-Toluenesulfonic acid monohydrate (CAS 6192-52-5) – not listed

Benzenesulfonic acid, 4-methyl- (CAS 104-15-4) - listed

Sulfuric acid - listed

SECTION 16: OTHER INFORMATION

16.1 Other Classifications

HMIS

Health Hazard: 3

Flammability: 0

Physical Hazards: 2

Revision date : 1/3/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Volochem chemicals are for research purposes only and are NOT intended for use as drugs, food additives, household goods, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.

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