

Material Safety Data Sheet

p-Toluenesulfonic acid monohydrate

ACC# 01968

Section 1 - Chemical Product and Company Identification

MSDS Name: p-Toluenesulfonic acid monohydrate**Catalog Numbers:** AC139020050, AC139025000, AC171780010, AC171780025, AC171785000, AC421211000, AC421215000, AC9555931, A320-500, A320500LC, NC9306176, NC9406138**Synonyms:** Benzenesulfonic acid, 4-methyl-, monohydrate; Toluene, 4-sulfonic acid, monohydrate; PTSA monohydrate.**Company Identification:**Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
6192-52-5	p-Toluenesulfonic acid monohydrate	> 97.5	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white crystals.

Danger! Causes severe eye irritation and possible eye injury. Causes skin and respiratory tract irritation. May be harmful if swallowed. Hygroscopic (absorbs moisture from the air). Corrosive to metal.**Target Organs:** Respiratory system, eyes, skin.**Potential Health Effects****Eye:** Causes severe eye irritation and possible burns.**Skin:** Causes skin irritation. Not expected to cause an allergic skin reaction.**Ingestion:** May be harmful if swallowed.**Inhalation:** Dust is irritating to the respiratory tract.**Chronic:** Chronic exposure may cause effects similar to those of acute exposure.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get

medical aid immediately.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Contact with metals may evolve flammable hydrogen gas.

Extinguishing Media: Use water spray, dry chemical, or carbon dioxide.

Flash Point: 180 deg C (356.00 deg F)

Autoignition Temperature: 350 deg C (662.00 deg F)

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Keep container tightly closed. Avoid breathing dust. Do not get in eyes. Avoid contact with skin and clothing.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
p-Toluenesulfonic acid monohydrate	none listed	none listed	none listed

p-Toluenesulfonic acid

none listed

none listed

none listed

OSHA Vacated PELs: p-Toluenesulfonic acid monohydrate: No OSHA Vacated PELs are listed for this chemical. p-Toluenesulfonic acid: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Crystals

Appearance: white

Odor: none reported

pH: Not applicable.

Vapor Pressure: 0.0000027 mm Hg @ 25 deg C

Vapor Density: Not available.

Evaporation Rate: Not applicable.

Viscosity: Not available.

Boiling Point: 140 deg C @ 20 mmHg

Freezing/Melting Point: 103 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: Not available.

Molecular Formula: C₇H₈O₃S.H₂O

Molecular Weight: 190.22

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation, moisture, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, strong bases, metals.

Hazardous Decomposition Products: Carbon monoxide, oxides of sulfur, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 6192-52-5: DB7164000

CAS# 104-15-4: XT6300000

LD50/LC50:

CAS# 6192-52-5:

Oral, mouse: LD50 = 1683 mg/kg;

Oral, rat: LD50 = 2570 mg/kg;

CAS# 104-15-4:

Oral, rat: LD50 = 2480 mg/kg;

Carcinogenicity:

CAS# 6192-52-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 104-15-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Neurotoxicity: No data available.

Mutagenicity: No data available.

Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: > 100 mg/l; 96 hr; LC50 No data available.

Environmental: p-Toluenesulfonic acid may exhibit a high biological oxygen demand, and it may cause significant oxygen depletion in aquatic systems. It is expected to be biodegradable and is not likely to bioconcentrate.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ALKYL SULFONIC ACIDS, SOLID	ARYLSULPHONIC ACIDS, SOLID With Not More
Hazard Class:	8	8
UN Number:	UN2585	UN2585
Packing Group:	III	III
Additional Info:		than 5% H2SO4

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 6192-52-5 is not on the TSCA Inventory b It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 104-15-4 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 6192-52-5: acute.

CAS # 104-15-4: acute.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 6192-52-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 104-15-4 can be found on the following state right to know lists: Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37 Wear suitable gloves.

WGK (Water Danger/Protection)

CAS# 6192-52-5: 1

CAS# 104-15-4: 1

Canada - DSL/NDSL

CAS# 104-15-4 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of E.

Canadian Ingredient Disclosure List

Section 16 - Additional Information
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MSDS Creation Date: 6/24/1999

Revision #3 Date: 10/20/2004

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.