

(Para-Toluene Sulfonic Acid)
DATE PREPARED: 6/23/2014

REVISION NUMBER: 6/23/2014

### Section 1 - Company Information

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801

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EMERGENCY RESPONSE NUMBER: CHEMTEL - Parchem CCN# M1S0007152 Toll Free US & Canada: (800)255-3924 All other Origins: (813) 248-0585

Collect Calls Accepted

### Section 2 – Product Identification/ Information on Ingredients

PRODUCT NAME Para-Toluene Sulfonic Acid

CAS NUMBER 104-15-4

SYNONYM 4-Methylbenzenesulfonic acid; Tosic acid; p-TSA; p-Tolylsulfonic acid; PTSA

FORMULA  $C_7H_8O_3S\cdot H_2O$ 

PRODUCT	CAS NUMBER	% BY WEIGHT
Para-Toluene Sulfonic Acid	104-15-4	100%

#### Section 3 – Hazards Identification

**Emergency Overview:** DANGER! CORROSIVE. CAUSES BURNS. HARMFUL IF SWALLOWED OR INHALED. MATERIAL IS EXTREMELY DESTRUCTIVE TO THE UPPER RESPIRATORY TRACT, EYES AND SKIN.

## **SAF-T-DATA Ratings**

**Health Rating:** 3

Flammability Rating: 1 Reactivity Rating: 2

**Contact Rating:** 3 (Corrosive)

Lab Protective Equip: Goggles & shield; lab coat & apron; vent hood; proper gloves

**Storage Color Code:** White (corrosive)

#### **Potential Health Effects**

**Inhalation:** Corrosive. Extremely destructive to tissues of the mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may be fatal as a result of spasm inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

**Ingestion:** Extremely destructive to tissues. May be fatal.

**Skin Contact:** Extremely destructive to skin. Causes irritation, redness, pain, and burns. **Eye Contact:** Extremely destructive to eyes. Causes irritation, redness, pain, and burns.

**Chronic Exposure:** No information found.

Aggravation of Pre-existing Conditions: No information found.



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#### Section 4 – First Aid Measures

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

**Ingestion:** DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Skin Contact:** In case of contact, wipe off excess material from skin then immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician immediately.

**Eye Contact:** Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician immediately.

### Section 5 – Fire Fighting Measures

Flash Point (CC): 184°C (363°F)

Auto-ignition Temperature: 350°C (662°F)

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

**Explosion:** Not considered to be an explosion hazard.

**Fire Extinguishing Media:** Water spray, dry chemical, alcohol foam, or carbon dioxide. May react strongly with water.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

#### Section 6 – Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Keep unnecessary and unprotected personnel from entering hazard area.

**Spills:** Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

#### Section 7 – Handling & Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Protect from moisture. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.



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### Section 8 – Exposure Controls & Personal Protection

**Airborne Exposure Limits:** None established.

**Ventilation System:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

**Personal Respirators (NIOSH Approved):** For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:** Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

## Section 9 – Physical & Chemical Properties

**Appearance:** Off-white crystals.

**Odor:** Odorless when pure; technical grade has a slight aromatic odor

**Solubility:** 67g/100mL water, anhydrous. **Density:** 1.23 - 1.24 g/cm<sup>3</sup> at 20C (anhydrous)

**pH:** No information found.

**Volatiles:** No information found.

**Boiling Point:** 140°C (284°F) at 20 mm Hg, anhydrous

Melting Point: 103 - 106°C (217 - 223°F)

Vapor Density (Air = 1): 6.0

**Vapor Pressure:** No information found.

**Evaporation Rate (BuAc = 1):** No information available

### Section 10 – Stability & Reactivity Data

**Stability:** Stable under ordinary conditions of use and storage. A strong acid when dissolved when dissolved in water, the solution is corrosive and reacts violently with bases.

**Hazardous Decomposition Products:** Burning may produce carbon monoxide, carbon dioxide, sulfur oxides.

Hazardous Polymerization: Will not occur.

**Incompatibilities:** Solution is a strong acid. Incompatible with sulfuric acid, caustics, ammonia, amines, amides, organic anhydrides, isocyanates, vinyl acetate, alkylene oxide and epichlorohydrin. Attacks metals in the presence of moisture and produces hydrogen gas.

Conditions to Avoid: No information found



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### Section 11 – Toxicological Information

For anhydrous p-Toluenesulfonic acid: Oral rat LD50: 2480 mg/kg.

Cancer Lists
NTP Carcinogen
Known: No
Anticipated: No
IARC Category: None

### Section 12 – Ecological Information

**Environmental Fate:** When released into the soil, this material is expected to leach into groundwater. When released into water, this material may biodegrade to a moderate extent. When released into water, this material is not expected to evaporate significantly. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition. This material is not expected to significantly bioaccumulate.

**Environmental Toxicity:** No information found.

#### Section 13 – Disposal Consideration

Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

#### Section 14 – Transportation Data

#### Domestic (Land, D.O.T.)

Proper Shipping Name: Aryl Sulfonic Acid, Solid (With Not More Than 5% Free Sulfuric Acid)

Hazard Class: 8 UN/NA: UN2585 Packing Group: III

#### International (Water, I.M.O.)

Proper Shipping Name: Aryl Sulfonic Acid, Solid (With Not More Than 5% Free Sulfuric Acid)

Hazard Class: 8 UN/NA: UN2585 Packing Group: III

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## Section 15 – Regulatory Information

### **Chemical Inventory Status**

TSCA: Yes
EC: Yes
Japan: Yes
Australia: Yes
Korea: Yes
DSL: Yes
NDSL: No
Phil.: Yes

### Federal, State, & International Regulations

SARA 302 RQ: No SARA 313 TPQ: No List: No

**Chemical Catg.:** No

RCRA CERCLA: No TSCA

**261.33:** No **8(d):** No

**Chemical Weapons Convention:** No

**TSCA 12(b):** No

CDTA: No

**SARA 311/312** 

Acute: Yes Chronic: No Fire: No Pressure: No

Reactivity: No (Pure / Solid)

Australian Hazchem Code: 2X Poison Schedule: None allocated.

WHMIS: This SDS has been prepared according to the hazard criteria of the Controlled Products

Regulations (CPR) and the SDS contains all of the information required by the CPR.



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## Section 16 – Other Information

#### Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.