

Revision number: 3 Revision date: 10/17/2016

1. IDENTIFICATION

Product name: Product code: 2-(4-Pyridyl)ethanesulfonic Acid P0353

For laboratory research purposes.

Not for drug or household use.

TCI AMERICA

SAFETY DATA SHEET

Product use: Restrictions on use:

Company:

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2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Eye Damage/Irritation [Category 1] Skin Corrosion/Irritation [Category 1C]

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye damage Causes severe skin burns and eye damage

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal] Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection. Wear face protection (full length face shield). If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents and container in accordance with US EPA guidelines for the classification and

determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: Substance 2-(4-Pyridyl)ethanesulfonic Acid >98.0%(T)

Emergency telephone number:

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1- 503-286-7624 **TCI AMERICA**

3. COMPOSITION/INFORMATION ON INGREDIENTS CAS Number: 53054-76-5 Molecular Weight: 187.21 Chemical Formula: C7H9NO3S 4. FIRST-AID MEASURES

4. FIRST-AID MEASURES				
Inhalation:	Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.			
Skin contact: For severe burns, immediate medical attention is required. Immediately call a poison c Remove and wash contaminated clothing before re-use. In case of contact with substa flush skin with running water for at least 20 minutes. Treat symptomatically and suppor medical personnel are aware of the material(s) involved and take precautions to protect medical attention.				
Eye contact:	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact with vapors or substance may cause severe injury, burns, or death. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.			
Ingestion:	Do not induce vomiting with out medical advice. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.			
Symptoms/effects:				
Acute: Delayed:	Pain. Redness. No data available			
Immediate medical attention:	WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is corrosive. For severe burns, immediate medical attention is required. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.			
5. FIRE-FIGHTING MEASURES				
Suitable extinguishing media:	Dry chemical, CO_2 or water spray. Consult with local fire authorities before attempting large scale fire fighting operations.			
Specific hazards arising from the cher Hazardous combustion products: Other specific hazards:	nical These products include: Carbon oxides Nitrogen oxides Sulfur oxides Closed containers may explode from heat of a fire.			
Special precautions for fire-fighters: Use water spray or fog; do not use straig heated. Move containers from fire area if Special protective equipment for fire-f				
Wear positive pressure self-contained br	eathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may			
6. ACCIDENTAL RELEASE MEAS	URES			
Personal precautions:	Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation.			

Emergency procedures:

Personal protective equipment:

(nitrile). Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves

Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material. **Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE	
Precautions for safe handling:	Avoid inhalation of vapor or mist. Manipulate under an adequate fume hood. Avoid contact with skin and eyes. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.
Conditions for safe storage:	Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods.
Storage incompatibilities:	Acids, Store away from oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No data available

Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

Respiratory protection: Hand protection:	Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Nitrile gloves.
Eye protection:	Safety glasses.
Skin and body protection:	Wear protective clothing (lab coat and chemical resistant boots).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Color: Odor: Odor threshold:	Solid Crystal - Powder White - Very pale yellow No data available No data available		
Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity:	299°C (dec.) (570°F) No data available No data available No data available No data available No data available	pH: Vapor pressure: Vapor density: Dynamic Viscosity:	No data available No data available No data available No data available
Partition coefficient: n-octanol/water (log P _{ow})	No data available	Evaporation rate: (Butyl Acetate = 1)	No data available
Flash point: Flammability (solid, gas):	No data available No data available	Autoignition temperature: Flammability or explosive limits: Lower: No data avai Upper: No data avai	

Solubility(ies):

10. STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Possibility of Hazardous Reactions: Conditions to avoid: Incompatible materials: Hazardous Decomposition Products: Not Available. Stable under recommended storage conditions. (See Section 7) No hazardous reactivity has been reported. Avoid excessive heat and light. Oxidizing agents No data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available				
Skin corrosion/irritation: No data available				
Serious eye damage/irritation: No data available				
Respiratory or skin sensitization: No data available				
Germ cell mutagenicity: No data available				
Carcinogenicity:				
No data available				
IARC: No data available	NTP:	No data available	OSHA:	No data available
Reproductive toxicity: No data available				
Routes of Exposure: Symptoms related to exposure: Skin contact may produce burrns. Skin cont contact can result in corneal damage or blin	act may result in infla	ntact, Ingestion, Skin cont ammation; characterized b		ng, or occasionally blistering. Eye
Potential Health Effects: No specific information available; skin and e Target organ(s):		lt in irriatation. May be ha	armful if inhaled or ingeste	d.
12. ECOLOGICAL INFORMATION				
Ecotoxicity Fish: Crustacea: Algae:	No data available No data available No data available			

Persistence and degradability:	No data available
Bioaccumulative potential (BCF):	No data available
Mobillity in soil:	No data available
Partition coefficient:	No data available
n-octanol/water (log Pow)	
Soil adsorption (Koc):	No data available
Henry's Law:	No data available
constant (PaM ³ /mol)	

13. DISPOSAL CONSIDERATIO	DNS
Disposal of product:	Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.
Disposal of container:	Dispose of as unused product. Do not re-use empty containers.
Other considerations:	Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

DOT (US)

UN2585	Proper Shipping Name:	Class or Division:	Packing Group:	
	Aryl sulphonic acids, solid	8 Corrosive material		
ΙΑΤΑ				
UN number:	Proper Shipping Name:	Class or Division:	Packing Group:	
UN2585	Arylsulphonic acids, solid	8 Corrosive material	III	
IMDG				
UN number:	Proper Shipping Name:	Class or Division:	Packing Group:	
UN2585	Arylsulphonic acids, solid	8 Corrosive material	III	
EmS number:	F-A, S-B			
	ontrol Act (TSCA 8b.): the EPA Toxic Substances Control Ac	t (TSCA) inventory.		
This product is ON	the EPA Toxic Substances Control Ac	t (TSCA) inventory.		
This product is ON US Federal Regula CERCLA Hazardou	the EPA Toxic Substances Control Ac <u>tions</u> Is substance and Reportable Quanti			
This product is ON US Federal Regula	the EPA Toxic Substances Control Ac			
This product is ON US Federal Regula CERCLA Hazardou SARA 313: SARA 302:	the EPA Toxic Substances Control Ac tions s substance and Reportable Quanti Not Listed			
This product is ON US Federal Regula CERCLA Hazardou SARA 313: SARA 302: State Regulations	the EPA Toxic Substances Control Ac tions s substance and Reportable Quanti Not Listed Not Listed			
This product is ON US Federal Regular CERCLA Hazardou SARA 313: SARA 302: State Regulations State Right-to-Kno Massachuse	the EPA Toxic Substances Control Ac tions Is substance and Reportable Quanti Not Listed Not Listed w etts Not Listed			
This product is ON US Federal Regula CERCLA Hazardou SARA 313: SARA 302: State Regulations State Right-to-Kno	the EPA Toxic Substances Control Ac tions Is substance and Reportable Quanti Not Listed Not Listed w etts Not Listed Not Listed Not Listed			

HMIS Classification:

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NFPA Rating:

International Inventories

WHMIS hazard class:	E: Corrosive material.
Canada: NDSL	On NDSL
EC-No:	258-331-3

16. OTHER INFORMATION

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TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, 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 can not 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.