

## Material Safety Data Sheet

### Section 1. Product and Company Identification

Product Identification: TCLP-EF  
MSDS Number: TCLP-EF  
Company Identification: High-Purity Standards  
P.O. Box 41727  
Charleston, SC 29423  
Telephone: (843) 767-7900  
FAX: (843) 767-7906

In case of emergency call INFOTRAC: 800-535-5053

### Section 2. Chemical Composition

Component	CAS/EINECS Registry #	Percent Concentration	ACGIH TLV	OSHA PEL
Acetic Acid	64-19-7/ 200-580-7	28-29	10 ppm	10 ppm
Sodium Hydroxide	1310-73-2/ 215-185-5	12-13	200 ppm	200 ppm
Water, deionized	7732-18-5/ 231-791-2	Balance	Not Available	Not Available

### Section 3. Hazard Identification

Emergency Overview: Corrosive. Flammable liquid and vapor. Toxic. Vapor harmful. Toxic by inhalation, ingestion, and upon contact with the skin. Irritating to eyes, skin, and respiratory tract. May be fatal or cause blindness.

Target Organs: Eyes, kidneys, liver, central nervous system, lungs.

Inhalation: Irritating to mucous membranes and respiratory tract. Toxic effects exerted upon central nervous system.

Ingestion: Toxic. May be fatal if swallowed.

Eyes: May cause severe eye damage leading to loss of sight.

Skin: May cause skin to become dry and cracked. Can be toxic if absorbed through the skin.

### Section 4. First Aid Measures

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Seek medical attention immediately.

Eye Contact: Check for and remove any contact lenses. Flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.

Skin Contact: Remove contaminated shoes and clothing. Rinse affected area with large amount of water for at least 15 minutes. Seek medical attention immediately.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

### Section 5. Fire Fighting Measures

Fire & Explosion hazards: Flammable liquid and vapor. Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

Extinguishing Media: Alcohol foam, water spray, carbon dioxide, or dry chemical powder.

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Specific Methods: Firefighters should wear proper protective equipment and self-contained breathing apparatus. Emits toxic fumes under fire conditions.

#### Section 6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment. Isolate hazard area. Collect liquid or absorb with an inert material, place in a covered container using non-sparking tools, and transport outdoors. Use water spray to reduce vapors. Prevent entry into sewers, basements, or confined areas.

#### Section 7. Handling and Storage

Handling: Keep away from heat sparks and flame. Keep container closed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist.  
Storage: Keep container in a cool, dry, well ventilated area away from any area where fire hazard may be acute.

#### Section 8. Exposure Controls and Personal Protection

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapors below their threshold limit value. Ensure that eyewash stations and safety showers are proximal to the workstation location. Use non-sparking tools.

Respiratory Protection: Vapor respirator. Wear appropriate respirator when ventilation is inadequate.

Personal Protection: Wear proper gloves, safety goggles, lab coat/apron.

#### Section 9. Physical and Chemical Properties

Molecular Weight: N/A

Boiling Point: ~64.5°C

Freezing Point: N/A

Vapor Pressure (mm): N/A

Vapor Density (air=1): ~1

Specific Gravity (H<sub>2</sub>O = 1): ~1

Solubility in H<sub>2</sub>O: Miscible

Appearance: Clear, colorless liquid

Odor: Characteristic odor

pH: When 1L of TCLP-EF is diluted to 50L with deionized water, pH of the solution at room temperature (20-25°C) is 4.88-4.98.

#### Section 10. Stability and Reactivity

Stability Indicator: Stable

Conditions to Avoid: Heat, flame, ignition sources, and incompatibles

Incompatibles: Oxidizing agents and alkali metals.

Hazardous Decomposition Products: CO, CO<sub>2</sub>, and formaldehyde. May release toxic and irritating vapors.

Hazardous Polymerization: Will not occur.

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#### Section 11. Toxicological Information

Causes eye irritation. Causes skin irritation. Toxic if absorbed through the skin. Toxic if inhaled. May be irritating to mucous membranes and upper respiratory tract. Toxic if ingested.

##### Toxicity Data:

Acetic Acid- RTECS# AF1225000

Methanol- RTECS# PC1400000

LD<sub>50</sub>, Oral, Rat: (Methanol) 5628 mg/kg; LC<sub>50</sub>, Acute Toxicity of Vapor, Rat (Methanol) 64000 ppm in 4 hours. Investigated as a mutagen, reproductive effector.

#### Section 12. Ecological Information

Ecotoxicological information: This material is expected to be slightly toxic to aquatic life.

#### Section 13. Disposal Considerations

Contact your local permitted waste disposal site for permissible treatment sites. Always contact the permitted waste disposal site to assure compliance with all current local, state, and federal regulations.

#### Section 14. Transport Information

DOT- This package conforms to 49 CFR 173.4

IATA- Dangerous Goods in Accepted Quantity

ID Numbers: UN 1230

Label Class: 3

#### Section 15. Regulations (Not meant to be all inclusive-selected regulation listed)

TSCA Status: Components of this solution are listed on the TSCA Inventory.

SARA: 311/312 Fire hazard; acute health hazard; chronic health hazard.

Indication of Danger and Symbol(s): F T



#### Section 16. Other Information

HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rest solely with the buyer and/or user. The MSDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the MSDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.