

**1. IDENTIFICATION:**

**Product Name:** FREE / TOTAL INDICATOR  
**Synonyms:** N/A  
**CAS Number:** Mixture  
**Catalog Numbers:** 09991 09942 09935 09936 09992 09937 09938 09947  
 09948 09991T


**Product Use:** Analytical / Laboratory Reagent  
**Manufacturer:** HF Scientific, Inc  
**Address:** 3170 Metro Parkway Fort Myers, FL 33916

**General Information:** 888-203-7248  
**Transportation Emergency Number:** CHEMTREC® 24 hr US 800-424-9300  
 CHEMTREC® 24 hr International 703-527-3887

**2. HAZARDS IDENTIFICATION**
**GHS Classification**

Health	Environmental	Physical
Acute toxicity: Category 4 Skin irritation: Category 1 Eye irritation: Category 1 Specific target organ toxicity following repeated exposure: Category 1	Aquatic toxicity: None	Flammable: No

**GHS Label**

Pictogram:	Signal Word:
	<b>WARNING</b> <b>DANGER</b>
Hazard Statements:	Precautionary Statements
Harmful if swallowed Harmful in contact with skin Harmful if inhaled Causes severe skin burns and eye damage Causes serious eye damage Causes damage to lungs	IF SWALLOWED Do NOT Induce Vomiting Unless Directed by Medical Personnel. Never Give Anything By Mouth to an Unconscious Person. Get Medical Attention. IF ON SKIN Immediately Flush Skin with Plenty of Water for at Least 15 Minutes While Removing Contaminated Clothing and Shoes. Wash Clothing Before Reuse. Get Medical Attention. IF INHALED Remove to Fresh Air. If Not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Attention. IF IN EYES Immediately Flush Eyes with Plenty of Water for at Least 15 Minutes. Get Medical Attention. DISPOSE of contents/container in accordance with local/regional/national/international regulations.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component	Cas Number	Weight %
Deionized Water	7732-18-5	> 90%
P-Toluenesulfonic Acid	6192-52-5	< 10%

**4. FIRST AID MEASURES**

**Eye Contact:** Immediately Flush Eyes with Plenty of Water for at Least 15 Minutes. Get Medical Attention.  
**Skin Contact:** Immediately Flush Skin with Plenty of Water for at Least 15 Minutes While Removing Contaminated Clothing and Shoes. Wash Clothing Before Reuse. Get Medical Attention.  
**Inhalation:** Remove to Fresh Air. If Not Breathing, Give Artificial Respiration. If Breathing is Difficult, Give Oxygen. Get Medical Attention.  
**Ingestion:** Do NOT Induce Vomiting Unless Directed by Medical Personnel. Never Give Anything By Mouth to an Unconscious Person. Get Medical Attention.

**5. FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:** Dry Chemical, Water Spray, or Foam  
**Fire Fighting Procedures:** N/A  
**Unusual Fire and Exposure Hazards:** N/A  
**Combustion Products:** N/A  
**NFPA Classification HEALTH:** 3 **FLAMMABLE:** 0 **REACTIVITY:** 1

**6. ACCIDENTAL RELEASE MEASURES**

Take up liquid with absorbent material and place in marked container for disposal. Material May be Neutralized with Dilute Sodium Carbonate. Wear Personal Protective Equipment such as Safety Glasses, Latex or Nitrile Gloves, Lab Coat, and Dust Mask.

**7. HANDLING AND STORAGE**

**Handling:** Use Appropriate Personal Protective Equipment Listed in Section 8. Do Not Ingest. Avoid Contact with Eyes and Skin.  
**Storage:** Keep Container Tightly Closed and Store in a Well Ventilated Area.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Limits:** N/A  
**Engineering Controls:** No required under normal conditions  
**Personal Protective Equipment:**  
**Eyes:** Safety goggles  
**Skin:** Latex or nitrile gloves and lab coat  
**Respiratory:** N/A

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Flashpoint:** N/A  
**Autoignition Temperature:** N/A  
**Boiling Point:** 100°C  
**Melting Point:** N/A  
**Vapor Pressure:** N/A

**Vapor Density:** N/A  
**% Solubility in Water:** Soluble in water

**Pour Point:** N/A  
**Molecular Formula:** Mixture  
**Odor / Appearance:** Clear, odorless liquid

**Lower Flammability Limit:** N/A  
**Upper Flammability Limit:** N/A  
**Specific Gravity:** 1.00 – 1.10  
**% Volatile:** N/A  
**Evaporation Rate (Water=1):** N/A  
**Viscosity:** N/A  
**Octanol / Water Partition Coefficient:** N/A  
**pH:** 1 – 2, acidic  
**Molecular Weight:** Mixture

**10. STABILITY AND REACTIVITY**

**Stability / Incompatibility:** Stable Under Normal Handling and Storage Conditions  
**Hazardous Reactions / Decomposition Products:** N/A

**11. TOXICOLOGICAL INFORMATION**

**Symptoms of Overexposure:** May Cause Burns of the Eyes, Skin, and Respiratory Tract  
**Acute Effects:** May Cause Burns of the Eyes, Skin, and Respiratory Tract  
**Eye Contact:** Burns to the eyes  
**Skin Contact:** Burns to the skin  
**Inhalation:** Burns to respiratory tract  
**Ingestion:** N/A  
**Target Organs Effects:** N/A  
**Chronic Effects:** Repeated Inhalation of Dust Can Produce Varying Degree of Respiratory Irritation or Lung Damage  
**Medical Conditions Aggravated by Exposure:** Pre-existing eye, skin or respiratory conditions  
**Acute Toxicity Values:** N/A

**12. ECOLOGICAL INFORMATION**

No Ecological Data Available

**13. DISPOSAL CONSIDERATIONS**

Dispose of in a manner consistent with Federal, State and Local Regulations.

**14. TRANSPORT INFORMATION**

**US DOT (United States Department of Transportation):**  
**CLASSIFICATION:** Class 8 Corrosive Material  
**IDENTIFICATION:** Aryl Sulfonic Acid, Liquid, with not more than 5% free Sulfuric Acid  
**UN NUMBER:** 2586  
**PACKING GROUP:** III

**IATA (International Air Transport Association):**  
**CLASSIFICATION:** Class 8 Corrosive Material  
**IDENTIFICATION:** Aryl Sulfonic Acid, Liquid, with not more than 5% free Sulfuric Acid  
**UN NUMBER:** 2586  
**PACKING GROUP:** III

**IMO (International Maritime Organization):**  
**CLASSIFICATION:** Class 8 Corrosive Material  
**IDENTIFICATION:** Aryl Sulfonic Acid, Liquid, with not more than 5% free Sulfuric Acid  
**UN NUMBER:** 2586  
**PACKING GROUP:** III

**15. REGULATORY INFORMATION**

DSCL (EEC): R36/37/38-Irritating to Eyes, Respiratory System, and Skin.  
S26-In Case of Contact with Eyes, Rinse Immediately with Plenty of Water and Seek Medical Advice.  
S28-After Contact with Skin, Wash Immediately with Plenty of Water.  
S36/37/39-Wear Suitable Protective Clothing, Gloves, and Eye/Face Protection.

**US / CANADA INFORMATION:**

OSHA: Hazardous By Definition of Hazard Communication Standard (29 CFR 1910.1200)  
WHMIS (Canada): CLASS E: Corrosive Liquid

**16. OTHER INFORMATION**

THE ABOVE INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. ALL PRODUCTS ARE OFFERED IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT PRODUCTION SPECIFICATIONS AND ARE INTENDED SOLELY FOR USE IN ANALYTICAL TESTING. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE RESULTING FROM THE HANDLING, USE OR MISUSE OF THESE PRODUCTS.

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