

## Material Safety Data Sheet

### Section 1: Chemical Product and Company Identification

<b>Catalog Number:</b> M4TAAFF0, PTA10KW, S9992B00	
<b>Product Identity:</b> TANTALUM ICP STANDARDS, 10000 ppm Ta in 2% Hydrofluoric Acid	
<b>Manufacturer's Name:</b> RICCA CHEMICAL COMPANY LLC	<b>Emergency Contact(24 hr) -- CHEMTREC®</b> Domestic: 800-424-9300 International: 703-527-3887
<b>CAGE Code:</b> 0V553	
<b>Address:</b> 448 West Fork Dr Arlington, TX 76012	<b>Telephone Number For Information:</b> 817-461-5601
<b>Date Prepared:</b> 8/2/05	<b>Revision: 0</b>  Last Revised: 08/02/2005 Date Printed: 08/31/2006 1:44:25 pm

### Section 2: Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Ammonium Heptafluorotantalate	12022-02-5	1 - 3	Not Available	Not Available
			Not Available	Not Available
Hydrofluoric Acid	7664-39-3	1 - 3	C 3 ppm	3 ppm
			C 2.3 mg/m3	Not Available
Water, Deionized	7732-18-5	Balance	Not Available	Not Available
			Not Available	Not Available

### Section 3: Hazard Identification

**Emergency Overview:** CAUTION! Handle this reagent with extreme care. Causes severe burns which may not be immediately noticeable. May be fatal if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor. Use with adequate ventilation. If swallowed, do not induce vomiting. Give large quantity of water and call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. First aid procedures should be pre-planned for Hydrofluoric Acid emergencies before beginning process.

**Target Organs:** eyes, skin, respiratory system, central nervous system, kidneys, skeletal system.

**Eye Contact:** Corrosive! Causes irritation and burns. Can cause burns that may lead to permanent impairment of vision, including blindness.

**Inhalation:** May cause sore throat, coughing, labored breathing and lung congestion/inflammation.

**Skin Contact:** Skin contact may cause burns which may not be immediately apparent or painful. The burns can be bone deep.

**Ingestion:** May cause burns to the lips, mouth, throat and stomach. If vomiting occurs and the liquid is aspirated into the lungs, the corrosive action on the lung tissues can be fatal.

**Chronic Effects/Carcinogenicity:** Chronic exposures may cause mottling of teeth and bone damage and fluorosis. Symptoms of fluorosis include brittle bones, weight loss, anemia, calcified ligaments, general ill health and joint stiffness.

## MSDS

TANTALUM ICP STANDARDS, 10000 ppm Ta in 2% Hydrofluoric Acid

IARC - No.

NTP - No.

OSHA - No.

**Reproductive Information:** Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Hydrofluoric Acid.**Teratology (Birth Defect) Information:** Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Hydrofluoric Acid.**Section 4: First Aid Measures - In all cases, seek qualified evaluation.****Eye Contact:** Do not allow victim to keep eyes shut. Check for and remove any contact lenses. Flush immediately with water for at least 15 minutes. Call a physician.**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.**Skin Contact:** Wash areas of contact immediately with water for at least 15 minutes. Soak the affected area with 70% Denatured Ethyl Alcohol solution or Epsom salts for 1 to 4 hours. Call a physician immediately.**Ingestion:** Do not induce vomiting. Give large quantity of water. Call a physician immediately.**Section 5: Fire Fighting Measures****Flash Point:** Not Available.**Method Used:** Not Available.**LFL:** Not Available.**UFL:** Not Available.**Extinguishing Media:** Use dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Use water as fog in flooding quantities.**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard. May react with metals to release flammable Hydrogen gas.**Fire Fighting Instructions:** Use normal procedures/instructions. Poisonous gases may be produced in fire.**Fire Fighting Equipment:** Use protective clothing and breathing equipment appropriate for the surrounding fire.**Section 6: Accidental Release Measures**

Cover the spill with Sodium Bicarbonate or a mixture of soda ash and slaked lime (50-50). Mix and spray water cautiously. Scoop up and add slowly to a large container of water. When reaction is complete, neutralize and wash down the drain with large excess of water.

Always dispose of in accordance with local, state and federal regulations.

**Section 7. Handling and Storage**

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Do not mix with bases. Contact with water will generate heat.

**Safety Storage Code:** Corrosive**Section 8: Exposure Control/Personal Protection****Engineering Controls:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn.**Skin Protection:** Chemical resistant gloves, Neoprene or PVC.**Eye Protection:** Safety glasses or goggles.**Section 9: Physical and Chemical Properties****Appearance:** Clear, colorless liquid**Odor:** Odorless**Solubility in Water:** Infinite**Specific Gravity:** Approximately 1**pH:** < 1**Boiling Point(°C):** Not Available.**Melting Point(°C):** Not Available.**Vapor Pressure:** Not Applicable.**Section 10: Stability and Reactivity****Chemical Stability:** Stable under normal conditions of use and storage.**Incompatibility:** Avoid contact with metals, concrete, glass and ceramics. Contact with metals may form flammable Hydrogen gas.**Hazardous Decomposition Products:** When heated to decomposition, can emit highly toxic/poisonous gases and fumes, including fluoride.

## MSDS

TANTALUM ICP STANDARDS, 10000 ppm Ta in 2% Hydrofluoric Acid

**Hazardous Polymerization:** Will not occur.

### Section 11. Toxicological Information

LC50, Inhalation, Rat: (Hydrofluoric Acid) 1276 ppm/1 H.

### Section 12. Ecological Information

**Ecotoxicological Information:** This material is expected to be slightly toxic to aquatic life. Insufficient data are available on the short and long-term effects of Hydrofluoric Acid to aquatic life, plants, birds, or land animals.

**Chemical Fate Information:** If the pH is > 6.5, soil can bind fluorides tightly. High calcium content will immobilize fluorides, which can be damaging to plants when present in acid soils.

### Section 13. Disposal Considerations

Cover the contaminated area with Sodium Bicarbonate or soda ash slaked lime mixture (50/50). Mix and add water to form slurry. Scoop up and wash down drain with excess water. Clean and neutralize area. Always dispose of in accordance with local, state and federal regulations.

### Section 14. Transport Information

Part Numbers: M4TAAFF0, PTA10KW-100, PTA10KW-50, S9992B00-100N, S9992B00-250N, S9992B00-500N

D.O.T. Shipping Name: Corrosive Liquid, Acidic, Inorganic, n.o.s., (Hydrofluoric Acid)

D.O.T. Hazard Class: 8

U.N. / N.A. Number: UN3264

Packing Group: III

D.O.T. Label: 8



### Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

**OSHA Status:** These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

**TSCA Status:** All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

**Section 302 Extremely Hazardous Substances:** Not Applicable.

**Section 311/312 Hazardous Categories:** Acute, Chronic: Yes      Fire, Pressure, Reactivity: No

**Section 313 Toxic Chemicals:** Not Applicable.

**California:** None Reported.

**Pennsylvania:** Hydrofluoric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List.

**RCRA Status:** U134

**CERCLA Reportable Quantity:** Hydrofluoric Acid - 100 pounds.

**MSDS**

TANTALUM ICP STANDARDS, 10000 ppm Ta in 2% Hydrofluoric Acid

**WHMIS:** E: Corrosive Material. D-1A: Poisonous and Infectious Material. Materials causing immediate and serious toxic effects - Very Toxic Material.**Section 16. Other Information**

## NFPA Ratings:

Health: 2	Flammability: 0	Reactivity: 0	Special Notice Key:None
-----------	-----------------	---------------	-------------------------

## HMIS Ratings:

Health: 2	Flammability: 0	Reactivity: 0	Protective Equipment:C (Protective eyewear, gloves, apron)
-----------	-----------------	---------------	--

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.