MATERIAL SAFETY DATA SHEET

ERA A Waters Company

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: ERA
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Product Name(s): Tin 1000 mg/L, Titanium 1000 mg/L
Catalog / Part Number(s): 037, 038, 186004196

MSDS Creation Date: November 22, 2005
Revision Date: July 19, 2012 **MSDS Reference Number:** 037-038

SECTION 2: HAZARDS IDENTIFICATION

Corrosive. Causes eye and skin burns. Harmful by inhalation. The matrix of the standard is a hydrogen chloride/water mixture which is classified as dangerous by Directive 199/45/EC. Use only as directed and in accordance with good laboratory practices.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

				EXPOSURE LIMITS		EU LABEL
CHEMICAL INGREDIENT NAME	CAS NUMBER	EC NUMBER	% BY WT.	OSHA	ACGIH	HAZARD LABEL
Hydrogen chloride (36.5-38%)	7647-010	231-595-7	≤3.8	5 ppm C; 7 mg/m3 C	2 ppm C	

Notes: This standard contains a metallic compounds/salts at levels <1% in a hydrogen chloride (≤3.8) and water (≥96.2%) mixture packaged in 125 mL containers. Exposure Limits are 8-Hour TWA (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit). Other components considered Non-Hazardous under OSHA 1910.1200 (HazCom) as they are not present in concentrations exceeding 1% (or 0.1% if considered a known or potential carcinogen). Material Use: Analytical reagent or certified reference material used in laboratories. Uses also include research and development.

SECTION 4: FIRST-AID MEASURES

Inhalation: Remove to fresh air.
Skin Contact: Flush with water.
Eye Contact: Immediately flush with water for a minimum of 15 minutes.
Ingestion: If swallowed, wash out mouth with water provided person is conscious. Seek immediate medical attention.
Note to Physician: Treat symptomatically and supportively.
After following first aid measures, seek medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable Properties: Not combustible. Use extinguishing media appropriate to surrounding fire conditions.
Extinguishing Media: Water spray, dry chemical, carbon dioxide or appropriate foam.
Unique Aspects Contributing To a Fire: NA
Special Fire Fighting Procedures: NA
Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Wear appropriate personal protective equipment. Absorb with spill pillow or other neutralizing absorbent and place in closed container for later disposal.

SECTION 7: HANDLING AND STORAGE

Keep container tightly closed. Store in a cool, dry, well-ventilated area. Handle in accordance with good laboratory practices. This product is intended for use only by people trained in the safety and handling of chemicals and laboratory preparations.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Handle in accordance with good laboratory practices. Wash thoroughly after handling.
Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved respirator.
Eye Protection: Safety glasses with side shields or safety goggles

Skin Protection: Neoprene or other chemical resistant gloves. Disposable nitrile are acceptable for light intermittent exposure.

Engineering Controls: Not normally needed. If exposure limits are exceeded, work in a fume hood.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

DATA FOR MATRIX:

Appearance:	Colorless	Specific Gravity:	NA	Melting Point:	NA
Physical State:	Liquid	Flash Point:	NA	Vapor Pressure:	NA
Odor:	NA	Explosion Limits:	NA	Vapor Density (air=1):	NA
pH:	NA	Boiling Point:	NA	Solubility in Water:	Soluble

SECTION 10: STABILITY AND REACTIVITY

Hazardous Polymerization Will Not Occur __X__ May Occur____ Stability: Stable __X__ Unstable ____
Hazardous Decomposition/Combustion Products: Hydrogen chloride gas. Conditions and Materials to Avoid: Bases, amines, alkali metals.

SECTION 11: TOXICOLOGICAL INFORMATION

Primary Route(s) of Exposure Under Normal Use: Inhalation, eye contact, absorbed through skin.

Target Organ(s): Respiratory system, gastrointestinal system, teeth, eyes, skin.

Acute Effects: Eye and skin burns. Damage to digestive and respiratory tract. Headache, nausea, dizziness, blurred vision, respiratory depression. Hydrogen chloride: Oral, man: LDLO =2.857 mg/kg; Oral, rabbit: LC50=900 mg/kg; Inhalation, rat: LC50=3124 ppm/1H; Inhalation, mouse: LC50=1108 ppm/1H

Chronic Effects: Dermatitis, bronchitis.

Other Information: Chemical Ingredient(s) not classified as carcinogen(s) by OSHA, IARC, NTP, ACGIH, or California.

SECTION 12: ECOLOGICAL INFORMATION

Hydrogen chloride: Etoxicity in water Fish (LC50): 3.6 mg/L 48 hours [Fish (bluegill/sunfish)]. Lethal fish: (LC50): 96 hrs.

SECTION 13: DISPOSAL CONSIDERATIONS

To determine proper disposal, consult applicable federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

Shipment Name/Type: Hydrochloric acid
UN Number: 1789 Shipping/Hazardous Class: 8 Packing Group: II
Shipping regulations are based on combinations of criteria such as quantity, class and packaging according to DOT, IATA and (49) CFR.

SECTION 15: REGULATORY INFORMATION

EU Symbol of Danger: Corrosive (C) concentration ≤3.8
EU Risk Phrases: Causes severe burns [R35] Harmful by inhalation [R20].

U.S. TSCA: Listed
Canada: This product has been classified according to the hazard criteria of the CPR and this MSDS contains all the information required by the CPR.

SECTION 16: OTHER INFORMATION

United States EPA Regulatory Information:		NFPA Rating:	Health: 3	Flammability: 0	Reactivity: 0
SARA 313:	Yes				
CERCLA RQ:	5000 lbs	HMIS Rating:	Health: 3	Flammability: 0	Physical Hazard: 0

NOTE: NA = Data not available, not established, determined or not pertinent.

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