

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Decalcifying Solution

**SYNONYMS:** None

**PRODUCT CODES:** ES733, ES733-5G, ES734

**MANUFACTURER:** Azer Scientific, Inc.

**ADDRESS:** 701 Hemlock Rd, Morgantown, PA 19543

**CHEMTREC PHONE:** 800-424-9300

**SUPPORT:** 610-524-5810

**FAX:** 610-901-3046

**PRODUCT USE:** Laboratory reagent, Decalcification of bone

**PREPARED BY:** CB

### SECTION 1 NOTES:

## SECTION 2: HAZARDS IDENTIFICATION

**GHS CLASSIFICATION:** Skin Corrosion/Irritation Category 1B; Serious eye damage/irritation Category 1; Specific Target Organ Toxicity - single exposure Category 3 (Respiratory); Aquatic Toxicity Acute Category 3; Corrosive to metals Category 1



**Signal Word:** Danger!

Hazard Phrases	
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.
H290	May be corrosive to metals.

Precautionary Phrases	
P234	Keep in original container.
P260	Do not breath mist or vapors.
P280	Wear protective gloves/ eye protection/ face protection.
P264	Wash hands thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P301+P330+P331	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor/physician.
P273	Avoid release to the environment.

### SECTION 2 NOTES:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<b>INGREDIENT:</b>	<b>CAS NO.</b>	<b>% WT</b>
Hydrochloric Acid	7647-01-0	<11
EDTA Tetra NA	10378-23-1	< 1
Sodium Tartrate	6106-24-7	< 1
Potassium sodium Tartrate	6381-59-5	< 1
Water	7732-18-5	balance

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

**EYES:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

**SKIN:** In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

**INGESTION:** Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**INHALATION:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

**FLAMMABILITY OF THE PRODUCT:**

**FLASH POINT:** Not available

**AUTOIGNITION TEMPERATURE:** Not available

**NFPA HAZARD CLASSIFICATION**

**HEALTH:3 FLAMMABILITY: 0 REACTIVITY: 0**  
**OTHER:**

**HMIS HAZARD CLASSIFICATION**

**HEALTH:3 FLAMMABILITY: 0 REACTIVITY: 0**  
**PROTECTION:**

**EXTINGUISHING MEDIA:** Use suitable media for the surrounding materials.

**NOT SUITABLE:** Do not use water jet.

**SPECIAL FIRE FIGHTING PROCEDURES:** Avoid contact with metal, hydrogen chloride gas can react with aluminum, tin, lead, zinc.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen gas can form in fire situation which is flammable.

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

## ACCIDENTAL RELEASE MEASURES:

**Small spill and leak:** Stop spill at the source if it is safe to do so. Neutralize spill with soda ash, or acid neutralizer. Absorb with an inert material. Collect into a suitable container for disposal.

**Large spill and leak:** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product.

## SECTION 6 NOTES:

## SECTION 7: HANDLING AND STORAGE

**HANDLING:** Do not get in eyes, on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

**STORAGE:** Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

## SECTION 7 NOTES:

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are close to the workstation.

**RESPIRATORY PROTECTION:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**EYE PROTECTION:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

**SKIN PROTECTION:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

**HANDS:** Chemical-resistant, impervious gloves complying with an approved standard should be worn always when handling chemical products if a risk assessment indicates this is necessary. Recommended: Neoprene

**ENVIRONMENTAL EXPOSURE CONTROLS:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**WORK HYGIENIC PRACTICES:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

## EXPOSURE GUIDELINES:

Component	Source	Type	Value	Note
Hydrochloric Acid	NIOSH	TWA	5 ppm	
Hydrochloric Acid	OSHA	TWA	5 ppm	
Hydrochloric Acid	ACGIH	STEL	2 ppm	

## SECTION 8 NOTES:

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Clear

**ODOR:** Slight chlorine

**PHYSICAL STATE:** liquid  
**pH AS SUPPLIED:** ~2  
**BOILING POINT:** Not available  
**MELTING POINT:** Not available  
**FREEZING POINT:** Not available  
**VAPOR PRESSURE (mmHg):** 160 mm Hg  
**VAPOR DENSITY (AIR = 1):** 1.267 [Air=1]  
**EVAPORATION RATE:** 2.0 (butyl acetate=1)  
**SOLUBILITY IN WATER:** Soluble in water  
**MOLECULAR WEIGHT:** Mixture  
**VISCOSITY:** Not established

**SECTION 9 NOTES:**

**SECTION 10: STABILITY AND REACTIVITY**

**STABILITY:** Product is stable under normal conditions of use.  
**CONDITIONS TO AVOID (STABILITY):** Reaction with water is exothermic.  
**INCOMPATIBILITY (MATERIAL TO AVOID):** Oxidizing agents, metals, and alkaline materials.  
**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Under normal conditions of storage and use, hazardous decomposition products should not occur. Hydrogen chloride gas may form if decomposition occurs.  
**HAZARDOUS POLYMERIZATION:** No hazardous polymerization  
**CONDITIONS TO AVOID (POLYMERIZATION):** N/A

**SECTION 10 NOTES:**

**SECTION 11: TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY:**

Oral LD50: Rabbit 900mg/kg  
Inhalation LC50: Mouse 1108 ppm, 1hr.; Rat 3124 ppm, 1hr.  
Dermal LD50: no data available  
Other information on acute toxicity: no data available  
Skin corrosion/irritation: Corrosive to skin  
Serious eye damage/eye irritation: Corrosive to eyes  
Respiratory or skin sensitization: no data available  
Germ cell mutagenicity: no data available  
Carcinogenicity: (NTP, IARC, OSHA): Not listed as a carcinogen.  
Specific target organ toxicity - single exposure (Globally Harmonized System): Eyes, Respiratory system  
Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available  
Aspiration hazard: Will burn mouth, throat, and respiratory tract.

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract inflammation.  
Ingestion Toxic if swallowed. Causes burns, tissue destruction.  
Skin Harmful if absorbed through skin. Causes skin irritation.  
Eyes Will burn eyes on contact.

**ROUTES OF ENTRY:** Skin/eye contact, inhalation, and ingestion.

**TARGET ORGANS:** Eyes, Respiratory system

**SECTION 11 NOTES:**

**SECTION 12: ECOLOGICAL INFORMATION**

**TOXICITY:**

**Acute fish Toxicity (Hydrochloric Acid)**

LC50 *Oncorhynchus mykiss* (rainbow trout) 282 mg/l 96hr

**PERSISTENCE AND DEGRADABILITY:** Biodegradation is expected

**BIOACCUMULATIVE POTENTIAL:** Bioaccumulation is unlikely.

**MOBILITY IN SOIL:** No data available

**PBT and vPvB ASSESSMENT:** Not required.

**SECTION 12 NOTES:**

SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Unused product: dispose as a regulated hazardous waste. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

**RCRA HAZARD CLASS:** Not classified

**SECTION 13 NOTES:**

SECTION 14: TRANSPORT INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION**

<b>UN No.</b>	UN1789
<b>Proper Shipping Name</b>	Hydrochloric Acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

(1 Liter or less can be shipped as Ltd Qty as per DOT)

**TDG**

<b>UN No.</b>	UN1789
<b>Proper Shipping Name</b>	Hydrochloric Acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

**IATA**

<b>UN No.</b>	UN1789
<b>Proper Shipping Name</b>	Hydrochloric Acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

**IMDG/IMP**

<b>UN No.</b>	UN1789
<b>Proper Shipping Name</b>	Hydrochloric Acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

**EMS-No: F-E, S-E**

SECTION 15: REGULATORY INFORMATION

**United States**

**HCS Classification:** Toxic material, Irritating material, Target organ effects

**U.S. Federal regulations:**

**United States inventory (TSCA 8b):** Listed on inventory.

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/311/312/313 hazardous chemicals:** Hydrochloric Acid; Hazardous material; RQ 5000lbs, TPQ 500lbs gas

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** Hydrochloric Acid

Acute Health Hazard, Chronic health hazard

**DEA List I & II Chemicals**

**(Precursor Chemicals):**

Not Listed

**RTK STATES:** Hydrochloric Acid CAS 7647-01-0 CA, CT, FL, MA, NJ, PA, RI

**California Prop. 65**

This product does not contain a chemical known to the State of California to cause birth defects or other reproductive harm.

**CANADA**

**WHMIS (Canada):**

Class D-2A: Material causing other toxic effects.

Class E: Corrosive material.

**Canadian lists:**

**CEPA Toxic substances:** None of the components are listed.

**Canadian ARET:** None of the components are listed.

**Canadian NPRI:** None of the components are listed.

**CEPA DSL / CEPA NDSL:**

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**International regulations**

**International lists:**

**Australia inventory (AICS):** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Japan inventory:** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted.

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**Philippines inventory (PICCS):** All components are listed or exempted.

SECTION 16: OTHER INFORMATION

**National Fire Protection Association (U.S.A.)**



**DISCLAIMER:** This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Azer Scientific be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.

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