

SAFETY DATA SHEET

GHS format

SECTION 1 IDENTIFICATION**Product Name:** Ultra-Max, Hydro-Balance**Product Number(s):** H-2001, H-2005**Product Use:** Descaling water systems**Restrictions on use:** Not determined**Distributed by:** Hydro-Balance Corporation**Manufactured by:** North American Research Corporation

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Telephone Numbers: (972) 492-1800, (800) 527-7520, Fax (972) 394-6755**Emergencies:** Infotrac (24 hours, everyday) (800) 535-5053 (US & Canada) 1 (352) 323-3500 (International)**SECTION 2 HAZARD(S) IDENTIFICATION**

Classification:

Corrosive to metals	Category 1
Acute toxicity, oral	Category 4
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity, single exposure	Category 3

Signal Word: Danger**Hazard statement(s):** May be corrosive to metals. Causes severe skin burns and eye damage. Harmful if swallowed. May cause respiratory irritation.

Precaution(s): Keep only in original packaging. Absorb spillage to prevent material damage. Do not breathe mist, vapors, or spray. Use only outdoors in a well ventilated area. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves, protective clothing, eye protection, and face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

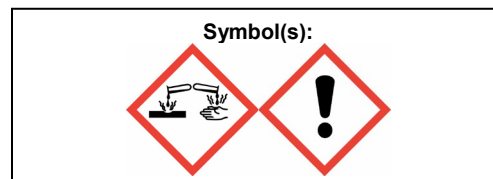
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents and container in accordance with all local, regional, and national regulations.

Other Hazards: Do not mix with any other product or chemical. Will react with most metals producing flammable hydrogen gas which may explode.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

Ingredient Name	CAS Registry No.	Weight %
Hydrochloric acid	7647-01-0	20 – 30

If the specific chemical identity and/or the exact percentage of an ingredient is not specified, the information has been withheld as a trade secret.

SECTION 4 FIRST-AID MEASURES

Immediately call a POISON CENTER or doctor/physician.

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Inhalation: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

Skin contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water or shower.

Ingestion: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Most important symptoms/effects: Skin burns, eye burns, and respiratory irritation.

Indication of immediate medical attention and special treatment needed, if necessary:

Notes to physician: Treat symptomatically.

Specific treatments: No specific treatment.

SECTION 5 FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

This product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards arising from the chemical:

Reacts with most metals producing flammable hydrogen gas which may explode.

Special protective equipment for fire-fighters: Use appropriate equipment for surrounding fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precaution, protective equipment and emergency procedures: Put on appropriate personal protective equipment (see section 8).

Methods and materials for containment and cleaning-up: Soak up with inert, absorbent material. Sweep up and shovel into suitable containers for proper disposal. Use a water rinse for final cleanup.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Wear appropriate personal protective equipment (PPE) to prevent contact with product. Mix only with water. Do not mix with any other product or chemical. Avoid breathing vapors, mist, and spray. Use only with adequate ventilation, equivalent to outdoors. Immediately wash with water any contact or suspected contact with this product. Wash hands, face, and any exposed skin thoroughly after handling. Launder contaminated clothing before reuse. For commercial and industrial use only by professionals trained in the field of HVACR. Do not spray on electrical connections. Empty container may contain product residue which may exhibit hazards of product. Triple rinse container before proper disposal.

Conditions for safe storage, including any incompatibilities: KEEP OUT OF REACH OF CHILDREN. Store locked up. Keep tightly closed in original container. Do not store near potential sources of ignition. Store in a cool, dry, well-ventilated area. Protect container against physical damage. See section 10 for incompatible materials.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical name	CAS	OSHA PEL	ACGIH TLV	NIOSH REL
Hydrochloric acid	7647-01-0	STEL: 5 ppm	Ceiling: 2 ppm	Ceiling: 5 ppm

Appropriate engineering controls: Use local exhaust ventilation equivalent to outdoors sufficient to control airborne levels.

Individual protection measures (PPE):

Eye protection: Chemical splash goggles or face shield

Hand protection: Chemical-resistant gloves. Nitrile, neoprene, or other suitable material.

Skin and body protection: If major exposure is possible, wear suitable protective clothing and footwear.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be implemented whenever workplace conditions warrant use of a respirator.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Red liquid (yellow when spent)	U/L flammability or explosive limits	Not determined
Odor	Strong/pungent	Vapor pressure	Not determined
Odor threshold	Not determined	Vapor density	Not determined
pH	< 1	Relative density (specific gravity)	1.12
Melting point/freezing point	Not determined	Solubility(ies)	100% in water
Initial boiling point and boiling range	Approximately 82°C / 180°F	Partition coefficient: n-octanol/water	Not determined
Flash point	Not flammable	Auto-ignition temperature	Not determined
Evaporation rate	Not determined	Decomposition temperature	Not determined
Flammability (solid, gas)	Not determined	Viscosity	Not determined

SECTION 10 STABILITY AND REACTIVITY

Reactivity: Contact with strong bases can cause violent reaction generating large amounts of heat. Reactions with metals can release flammable hydrogen gas.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to Avoid: Do not mix with other chemicals. Incompatible materials, excessive heat and fire.

Incompatible materials: Bases, oxidizing agents, reducing agents, amines, alkalies, organic compounds. Will react with most metals to form flammable hydrogen gas.

Hazardous decomposition products: Hydrogen chloride, phosgene from heating.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye Irritation: Causes severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Skin Irritation: Causes severe skin burns. Symptoms may include burning pain and severe corrosive skin damage.

Inhalation: May cause irritation and corrosive effects to nose, throat, and respiratory tract. Symptoms may include coughing and difficulty breathing.

Ingestion: Causes burns / serious damage to mouth, throat, and stomach.

Sensitization: No known effects.

Numerical measure of toxicity, component information:

Chemical name	CAS	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Hydrochloric acid	7647-01-0	900 mg/kg (rabbit)	1449 mg/kg (mouse)	3124 ppm, 1 hour (rat)–

CHRONIC:

Carcinogenicity: This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive Toxicity: No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

Teratogenicity: No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: Because of the pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Persistence and degradability: No information available.

Bioaccumulation potential: No information available.

Mobility in soil: No information available.

Other adverse effects: No known significant effects or critical hazards.

SECTION 13 DISPOSAL CONSIDERATIONS

Unused product: This product, as sold, if discarded or disposed, is a hazardous waste according to federal regulations. Dispose of container and contents in accordance with local, regional, national and international regulations.

Contaminated containers or packaging: Do not reuse empty containers. Triple rinse containers and offer for recycle where available. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

RCRA Hazard Class: D002 Corrosive.

SECTION 14 TRANSPORT INFORMATION

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT (ground), IMDG	Hydrochloric acid solution	UN1789	II	8
IATA	Not suitable for air shipment as packaged from factory			

SECTION 15 REGULATORY INFORMATION

TSCA: All components of this product are on the U.S. Toxic Substances Control Act (TSCA) Chemical Substances Inventory or are exempt.

CERCLA: Hydrochloric acid (7647-01-0); RQ 5000 lbs.

SARA TITLE III:

Section 311/312 Hazard Category: Acute: Yes Chronic: No Fire: No Reactive Hazard: No

Section 313 Reportable Ingredients: Hydrochloric acid (7647-01-0) is subject to the reporting requirements of Section 313 of Title III of the 1986 Superfund Amendments and Reauthorization Act (SARA) and 40 CFR Part 372. RQ 5000 lbs.

CALIFORNIA (Proposition 65): No reportable ingredients.

SECTION 16 OTHER INFORMATION

Date Prepared: Apr. 02, 2015 **Replaces:** Dec. 08, 2009

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