

REC'D MAR 23 1999

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MSDS #N10

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration

(Non-Mandatory Form)

Form Approved

OMB No. 1218-0072

CHM 00137

X46010089-010



IDENTITY (As Used on Label and List)
HYDRO-BALANCE ULTRA-MAX

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I (#H-2001) H-2006

Manufacturer's Name North American Research Corporation	Emergency Telephone Number (972.) 492-1800	During Transit-INFOTRAC 800-535-5053
Address (Number, Street, City, State, and ZIP Code) P.O. Box 1318	Telephone Number for Information (972) 492-1800	
Lewisville, TX 75067	Date Prepared 9/02/97	
Signature of Preparer (optional) <i>[Signature]</i>		

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Hydrogen Chloride (CAS #7647-01-0)	5ppm	5ppm	100 IDLH	<80

NFPA HAZARD RATING	pH = 1	SHIPPING DESCRIPTION:
"3" Health		Hydrochloric Acid Solution,
"0" Flammability		8, UN-1789, PGII
"0" Reactivity		

Section III - Physical/Chemical Characteristics

Boiling Point	150° F	Specific Gravity (H₂O = 1)	1.16
Vapor Pressure (mm Hg.) @ 20° C	78	Melting Point	N/A
Vapor Density (AIR = 1)	1.27	Evaporation Rate (Butyl Acetate = 1).	>1
Solubility in Water	Complete		
Appearance and Odor	Dark Red Liquid; Pungent Odor.		

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	N/A	Flammable Limits	LEL N/A	UEL N/A
Extinguishing Media	Non-Flammable			
Special Fire Fighting Procedures	Firefighters should wear self contained positive pressure breathing apparatus on surrounding fire.			
Unusual Fire and Explosion Hazards	Avoid skin contact. Reaction with metals will release flammable hydrogen gas.			

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Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid Contact with strong bases can cause violent reaction generating large amounts of heat.
	Stable	X	

Incompatibility (Materials to Avoid) Bases, metals, mercuric sulfate, perchloric acid, carbides of calcium, cesium, rubidium, acetylides of cesium & rubidium, phosphides of calcium & uranium & lithium silicide.

Hazardous Decomposition or Breakdown Products Thermal decomposition causes hydrogen gas and hydrogen chloride vapors.

Hazardous Polymerization	May Occur		Conditions to Avoid None
	Will Not Occur	X	

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation? X	Skin? X	Ingestion? X
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Health Hazards (Acute and Chronic) SKIN: concentrated vapors can cause burns. Repeated or prolonged contact can cause irritation & dermatitis. EYES: liquid or concentrated vapors can cause irritation, severe burns & permanent damage including blindness. INGESTION: at high concentrations, can cause severe burns of mouth, esophagus & stomach. Nausea, pain & vomiting frequently occur. INHALATION: mist & vapor can cause irritation of respiratory tract with burning, choking, coughing, headaches & rapid heartbeat. Concentrations above 100ppm can be fatal.

Carcinogenicity:	NTP? No	IARC Monographs? No	OSHA Regulated? No
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No studies have been conducted relative to hydrogen chloride & carcinogenicity.

Signs and Symptoms of Exposure See "Health Hazards" above.

Medical Conditions Generally Aggravated by Exposure Asthma, bronchitis, emphysema & other lung conditions and chronic nose, sinus or throat conditions.

Emergency and First Aid Procedures SKIN: remove contaminated clothing & wash skin with large amounts of water. Get medical attention. EYES: flush with large amounts of water. Get medical attention. INGESTION: drink large amounts of water. DO NOT induce vomiting, Get medical attention. INHALATION: remove to fresh air. If breathing stops, administer APR Get medical attention.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
Evacuate area where fumes are present. Contain spill with dikes, etc., & prevent run-off into ground & surface waters or into sewers. Neutralize with soda ash or dilute with caustic soda.

Waste Disposal Method
Recovered solids or liquids may be sent to a licensed reclaimer or disposed of in a permitted waste management facility. Abide by all federal, state & local laws.

Precautions to Be Taken in Handling and Storing
Store in closed, properly labeled, acid-resistant plastic containers.

Other Precautions
Read entire label before using. Do not store near strong alkalis or other reactive materials

For Industrial & Institutional use. For Professional use only.

Section VIII — Control Measures

Respiratory Protection (Specify Type) Concentrations between 5 & 100ppm, full face respirator; over 100ppm or during leaks, use approved self-contained breathing apparatus with full facepiece.

Ventilation	Local Exhaust	As necessary to maintain concentrations below 5ppm at all times.	Special	N/A
	Mechanical (General)	N/A	Other	N/A

Protective Gloves	Rubber	Eye Protection	Chemical goggles
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Other Protective Clothing or Equipment
Where splashing can occur, use Neoprene or PVC rain suit & boots.

Work/Hygiene Practices Do not eat, drink or smoke in work area. Wash hands prior to eating, drinking or using restrooms. Safety showers & eyewash stations must be available in immediate area.