



Safety Data Sheet  
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

<b>Product Name</b>	Hardness Buffer
<b>NCL Catalog Number</b>	<b>H-5</b>
<b>Product Description</b>	Laboratory chemical, APHA for Hardness.
<b>Supplier</b>	
NCL of Wisconsin, Inc.	<b>Telephone:</b> 1-800-648-7836 <b>Fax:</b> 715-449-2454
P.O. Box 8	<b>Emergency Contact:</b> 1-800-424-9300 (Chemtrec)
Biramwood, WI 54414	<b>Email:</b> <a href="mailto:nclabs@nclabs.com">nclabs@nclabs.com</a>

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Classification**

Acute Toxicity	Inhalation Category 4
Skin Corrosion	Category 1B
Serious Eye Damage	Category 1
Aquatic Acute	Category 3
Aquatic Chronic	Category 3



**Signal Word**

Danger

**Hazard Statements**

H332	Harmful if inhaled. Corrosive to the respiratory tract.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

P260	Do not breathe mist/vapors/spray.
P264	Wash exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P405	Store locked up.
P501	Dispose of contents/container to comply with local, state and federal regulations.

**Other Hazards Not Contributing to the Classification**

None under normal conditions.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Identity</b>	Not applicable
<b>Common Name</b>	Not applicable

Mixture

Name	CAS #	Approximate %
Water	7732-18-5	63
Ethanolamine	141-43-5	25
Ethanolamine Hydrochloride	2002-24-6	11
EDTA Magnesium Disodium Salt	304695-29-2	1

#### SECTION 4: FIRST AID MEASURES

##### Description of First Aid Measures

<b>General First Aid Measures</b>	Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.
<b>If Inhaled</b>	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
<b>In Case of Skin Contact</b>	Immediately call a POISON CENTER or doctor/physician. Flush skin with plenty of soap and water. Wash contaminated clothing before reuse. Remove/take off immediately all contaminated clothing. Rinse skin with water or shower.
<b>In Case of Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Immediately call a POISON CENTER or doctor/physician. Continue rinsing.
<b>If Swallowed</b>	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

##### Most Important Symptoms/Effects Acute and Delayed

<b>After Inhalation</b>	Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Possible laryngeal spasm/oedema. Risk of lung oedema. Respiratory difficulties.
<b>After Skin Contact</b>	Caustic burns/corrosion of the skin. Slow-healing wounds.
<b>After Eye Contact</b>	Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.
<b>After Ingestion</b>	Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. Disturbances of consciousness.
<b>Chronic Symptoms</b>	On repeated exposure: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

##### Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical attention.

#### SECTION 5: FIRE-FIGHTING MEASURES

##### Extinguishing Media

<b>Suitable Extinguishing Media</b>	Foam. Dry powder. Sand. Carbon dioxide. Water spray.
<b>Unsuitable Extinguishing Media</b>	Do not use high pressure water stream.

##### Special Hazards Arising from the Chemical

No data available.

##### Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

##### Personal Precautions, Protective Equipment and Emergency Procedures

<b>Personal Precautions</b>	Use personal protective equipment (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources.
<b>Environmental Precautions</b>	Prevent entry to surface and ground waters.
<b>Methods and Materials for Containment and Cleaning Up</b>	Use inert solids to soak up spills. Collect spillage. Store away from other materials. Ensure compliance with federal, state and local regulations. Wash clothing and equipment after handling.

**SECTION 7: HANDLING AND STORAGE**

<b>Precautions for Safe Handling</b>	Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
<b>Conditions for Safe Storage Including any Incompatibilities</b>	Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control Parameters

Ethanolamine (141-43-5)		
USA OSHA	OSHA PEL	3 ppm
USA ACGIH	ACGIH TLV	3 ppm

<b>Appropriate Engineering Controls</b>	Material should be handled or transferred in a fume hood or with equivalent ventilation.
<b>Individual Protection Measures</b>	Avoid all unnecessary exposure.
<b>Eye/Face Protection</b>	Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.
<b>Skin Protection</b>	Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.
<b>Respiratory Protection</b>	Wear appropriate mask.
<b>Other Information</b>	Do not eat, drink, or smoke when using this product.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid
<b>Color</b>	Clear, colorless to light yellow
<b>Odor</b>	Mild odor
<b>Odor Threshold</b>	Not determined
<b>pH</b>	Not determined
<b>Melting Point/Freezing Point</b>	-26°C
<b>Initial Boiling Point and Boiling Range</b>	99°C
<b>Flash Point</b>	Not determined
<b>Evaporation Rate</b>	1.14
<b>Flammability (Solid, Gas)</b>	Not determined
<b>Upper/Lower Flammability/Explosive Limits</b>	Not determined
<b>Vapor Pressure</b>	Not determined
<b>Vapor Density</b>	Not determined
<b>Relative Density</b>	Not determined
<b>Solubility</b>	Soluble in water
<b>Partition Coefficient: n-octanol/water</b>	Not determined
<b>Auto-Ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Viscosity</b>	Not determined

**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	No data available.
<b>Chemical Stability</b>	Stable under ordinary conditions of use and storage.
<b>Possibility of Hazardous Reactions</b>	No data available.
<b>Conditions to Avoid</b>	Extremely high or low temperatures. Heat and sunlight can contribute to instability.
<b>Incompatible Materials</b>	No data available.
<b>Hazardous Decomposition Products</b>	When heated to decomposition, can emit toxic gases and carbon dioxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Acute Toxicity** Harmful if inhaled.

<b>Ethanolamine (141-43-5)</b>	
<b>LD50 oral rat</b>	1720 mg/kg
<b>LD50 dermal rabbit</b>	1000 mg/kg

<b>Skin Corrosion/Irritation</b>	Causes severe skin burns.
<b>Serious Eye Damage/Irritation</b>	Causes serious eye damage.
<b>Respiratory or Skin Sensitization</b>	Not classified
<b>Germ Cell Mutagenicity</b>	Not classified
<b>Carcinogenicity</b>	Not classified
<b>Reproductive Toxicity</b>	Not classified
<b>Specific Target Organ Toxicity (Single Exposure)</b>	Not classified
<b>Specific Target Organ Toxicity (Repeated Exposure)</b>	Not classified
<b>Aspiration Hazard</b>	Not classified
<b>Potential Adverse Human Health Effects and Symptoms</b>	No data available
<b>After Inhalation</b>	Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Possible laryngeal spasm/oedema. Risk of lung oedema. Respiratory difficulties.
<b>After Skin Contact</b>	Caustic burns/corrosion of the skin. Slow-healing wounds.
<b>After Eye Contact</b>	Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.
<b>After Ingestion</b>	Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. Disturbances of consciousness.
<b>Chronic Symptoms</b>	On repeated exposure: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

## SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity</b>	Harmful to aquatic life with long lasting effects.
<b>Persistence and Degradability</b>	Not applicable
<b>Bioaccumulative Potential</b>	Not applicable
<b>Mobility in Soil</b>	Not applicable
<b>Other Adverse Effects</b>	Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Methods of Disposal

**Disposal Recommendations** Dispose of contents/containers in accordance with federal, state and local regulations. Do not discharge into surface water.

**Other Information** Avoid release to the surrounding environment.

**SECTION 14: TRANSPORT INFORMATION**

**UN Number** Not applicable

**UN Shipping Name** Not applicable

**Transport Hazard Class(es)** Not applicable

**Packing Group** Not applicable

**Environmental Hazards** Not applicable

**Transport in Bulk** Not applicable

**Other Precautions** Not applicable

**SECTION 15: REGULATORY INFORMATION**

<b>Ethanolamine (141-43-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Ethanolamine Hydrochloride (2002-24-6)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>EDTA (304695-29-2)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

**SECTION 16: OTHER INFORMATION**

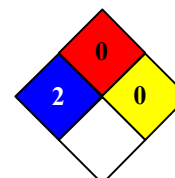
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**NFPA Hazards**

**Health Hazard** 2: Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.

**Fire Hazard** 0: Materials that will not burn.

**Reactivity/Instability** 0: Normally stable, even under fire conditions.



**HMIS III Rating**

**Health** 2: Temporary or minor injury may occur.

**Flammability** 0: Minimal Hazard

**Physical Hazard** 0: Materials that are normally stable.

**Personal Protection** H

H-5	
Health	2
Flammability	0
Physical Hazard	0
Personal Protection	H

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**END OF SAFETY DATA SHEET**