

MATERIAL SAFETY DATA SHEET  
NCL of Wisconsin, Inc.  
P.O. Box 8  
Birnamwood, WI 54414  
Emergency Telephone No: 800-424-9300 (Chemtrec)

PRODUCT NAME: HYDROCHLORIC ACID, 0.5 N  
NCL CATALOG NUMBER: H-25  
Date of this revision: 08/22/2007

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1. CHEMICAL PRODUCT IDENTIFICATION

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Trade name: None.  
Chemical Formula: Not applicable.  
Formula CAS No: Not applicable.  
Molecular Weight: Not applicable.

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2. COMPOSITION

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Component	CAS#	Approx %
Water	7732-18-5	98
Hydrochloric Acid	7647-01-0	2

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3. HAZARD IDENTIFICATION

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Corrosive. Mutagen. May cause severe respiratory and/or digestive tract irritation with possible burns. Causes eye and skin burns. May cause fetal effects based upon animal studies. Possible sensitizer. TARGET ORGANS AFFECTED: Eyes, skin, circulatory system, respiratory system, teeth.  
Routes of entry: Ingestion, inhalation, or skin contact.  
Carcinogenicity: This material is not listed (IARC, NTP, OSHA) as a cancer causing agent.

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4. FIRST AID MEASURES

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Ingestion: If swallowed, DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Call a physician immediately. Give milk of magnesia.  
Inhalation: Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid immediately. DO NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device.  
Eyes: Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation is required (at least 30 minutes). SPEEDY ACTION IS CRITICAL!  
Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

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5. FIRE FIGHTING MEASURES:

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Flash Point: Not determined.  
Flammable Limits (LEL): Not Determined.  
Flammable Limits (UEL): Not Determined.

Fire: Wear self-contained breathing apparatus and protective clothing.  
Fire Extinguishing Media: Use any available means to extinguish surrounding fire.  
Explosion Hazards: Thermal decomposition produces toxic fumes.

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#### 6. ACCIDENTAL RELEASE MEASURES

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Evacuate area of non-essential personnel. Eliminate ignition sources.  
Neutralize with soda ash (sodium carbonate). Scoop up material and transfer to a plastic container and send to a RCRA-approved waste facility.  
Ensure compliance with Federal, State, and local regulations.

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#### 7. HANDLING AND STORAGE

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Keep in a tightly closed container, stored in a cool, dry, ventilated area. Avoid breathing vapors. Avoid contact with eyes, skin, and clothing.

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#### 8. EXPOSURE CONTROLS

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Airborne Exposure Limits:

None established for product.

For 100% Hydrochloric acid (product contains 2%)

OSHA Permissible Exposure Limit (PEL): 5 ppm, 7 mg/cu.m. (CL)

ACGIH Threshold Limit Value (TLV): 5 ppm, 7.5 mg/cu.m. (CL)

Ventilation System: Material should be handled or transferred in a fume hood or with equivalent ventilation.

Personal Respirators (NIOSH Approved): If the TLV is exceeded a full facepiece chemical cartridge respirator may be worn, in general, up to the maximum use concentration specified by the respirator supplier, or up to 100 times the TLV, whichever is less.

Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection: Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Eye Protection: 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.

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#### 9. PHYSICAL CHEMICAL PROPERTIES

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Appearance: Clear, colorless liquid.

Odor: Slightly acidic.

Solubility: Infinitely soluble in water.

Boiling Point: Not Determined.

Melting Point: Not Determined.

Specific Gravity: 1.0

Vapor Density (Air=1): Not Determined.

Vapor Pressure (mm Hg): Not Determined.

Evaporation Rate: Not Determined.

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#### 10. STABILITY AND REACTIVITY

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Stability: Stable under ordinary conditions of use and storage. Containers may burst when heated.

Hazardous Decomposition Products: When heated to decomposition, emits toxic hydrogen chloride fumes.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: Strong bases, metals, metal oxides, hydroxides, amines, and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

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#### 11. TOXICOLOGICAL INFORMATION:

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No toxicity data for product.

For 100% Hydrochloric Acid (product contains 2%):

orl-rbt LD50: 900 mg/kg

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#### 12. ECOLOGICAL INFORMATION

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None found.

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#### 13. DISPOSAL CONSIDERATIONS

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EPA Waste Number: None for product.

For Hydrochloric Acid: D002

Neutralize to a pH of 6-9.

Ensure compliance with Federal, State, and local regulations.

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#### 14. TRANSPORT INFORMATION

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DOT Shipping Name: Corrosive liquids, n.o.s.

DOT Number: UN1760

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#### 15. REGULATORY INFORMATION

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The CAS numbers of all components of this solution are listed on the TSCA Inventory.

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#### 16. OTHER INFORMATION

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NFPA Hazard Ratings:

Health:	1
Flammability:	0
Reactivity:	0
Special Hazards:	None known.

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END OF MATERIAL SAFETY DATA SHEET