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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

## MATERIAL SAFETY DATA SHEET

NCL of Wisconsin, Inc.

P.O. Box 8

Biramwood, WI 54414

Emergency Telephone No: 800-424-9300 (Chemtrec)

PRODUCT NAME: AMMONIUM CHLORIDE-EDTA BUFFER SOLUTION

NCL CATALOG NUMBER: A-17F

Date of this revision: 02/04/2000

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### 1. CHEMICAL PRODUCT IDENTIFICATION

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Trade name: None.

Chemical Formula: Solution in water.

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
Ammonium Chloride	12125-02-9	1.3
Ammonium Hydroxide	1336-21-6	<0.5
Disodium EDTA	60-00-4	<0.2

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### 3. HAZARD IDENTIFICATION

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Vapor irritating to respiratory system.

Harmful if inhaled or swallowed.

Do not get in eyes, on skin or on clothing. Do not inhale vapors.

Remove and wash contaminated clothing before re-use.

Routes of entry: Ingestion, inhalation.

Carcinogenicity: None of the ingredients of this mixture are 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! If conscious, give water containing lemon juice or orange juice. Call a physician.

Inhalation: Remove to fresh air. Give artificial respiration if breathing has stopped.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin: Immediately flush skin with plenty of water. Get medical attention if irritation develops.

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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: Water spray, foam, dry chemical, or CO2.

Explosion Hazards: Thermal decomposition produces toxic fumes.

Contact with acids liberates toxic ammonia fumes

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## 6. ACCIDENTAL RELEASE MEASURES

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Evacuate area of non-essential personnel.

Wear suitable personal protective equipment as described in Section 8

Eliminate ignition sources.

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% Ammonium Hydroxide (product contains <0.2%):

OSHA Permissible Exposure Limit (PEL): 50 ppm (TWA) Ceiling

ACGIH Threshold Limit Value (TLV): 25 ppm (TWA) ceiling; 35 ppm(STEL)

For 100% Ammonium Chloride (product contains 1.3%):

ACGIH Threshold Limit Value (TLV): 10 ppm (TWA); 20 mg/cu.m (STEL)

Ventilation System: A system of local exhaust is recommended to keep employee exposures below the Airborne Exposure Limit. Local exhaust is generally preferred because it can control the emissions of the dust or vapor at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Alternatively, a supplied air full facepiece respirator or air-lined 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: Slight characteristic odor of ammonia.

Solubility: Infinitely soluble in water.

Boiling Point: Not Determined. Decomposes in toxic fumes of ammonia.

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 ammonia and nitric oxide fumes.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: Acids, acrolein, dimethyl sulfate, halogens, silver nitrate, propylene oxide, nitromethane, silver oxides, silver permanganate, oleum, beta-propiolactone, potassium chlorate, bromine trifluoride, bromine pentafluoride.

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## 11. TOXICOLOGICAL INFORMATION:

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No toxicity data for product.

For 100% Ammonium Hydroxide (product contains <0.2%):

orl-hmn LDLo: 43 mg/kg.

For 100% Ammonium Chloride (product contains 1.3%):

orl-rat LD50: 1650 mg/kg

orl-dog LDLo: 600 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.

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: Not Regulated.

DOT Number: None.

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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.