

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

PRODUCT NAME: BUFFER SOLUTION FOR NITRATES
NCL CATALOG NUMBER: N-27B
Date of this revision: 10/16/2008

1. CHEMICAL PRODUCT IDENTIFICATION

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

2. COMPOSITION

Component	CAS#	Approx %
Water	7732-18-5	>95
Boric Acid	10043-35-5	<1
Aluminum Sulfate	10043-01-3	<2
Silver Sulfate	10294-26-5	<1
Sulfamic Acid	5329-14-6	<1

3. HAZARD IDENTIFICATION

CAUTION! May be harmful if swallowed. May cause digestive tract irritation. May cause central nervous system depression. May cause kidney damage. May cause skin irritation. Do not get in eyes, on skin or on clothing. Minimal contact, as with all chemicals, is a good policy to follow.
Routes of entry: Ingestion.
Carcinogenicity: This material is not listed (IARC, NTP, OSHA) as a cancer causing agent.

4. FIRST AID MEASURES

Ingestion: If conscious, give 2-4 cupfuls of milk or water. Call a physician immediately.
Inhalation: Remove to fresh air. Give artificial respiration if breathing has stopped. Call a physician immediately.
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.

5. FIRE FIGHTING MEASURES

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire: Wear self-contained breathing apparatus and protective clothing.

Fire Extinguishing Media: Dry chemical, foam, water spray, carbon dioxide. Use water spray to cool containers.

6. ACCIDENTAL RELEASE MEASURES

Evacuate area of non-essential personnel. Eliminate ignition sources. Scoop up material and transfer to a container for proper disposal.

Ensure compliance with Federal, State, and local regulations.

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS

Airborne Exposure Limits: Not established for product.

For Aluminum Sulfate (product contains <2%):

OSHA Permissible Exposure Limit (PEL): 2 mg/cu.m.(as Al)(TWA)

ACGIH Threshold Limit Value (TLV): 2 mg/cu.m.(as Al)(TWA)

For Silver Sulfate (product contains <1%):

OSHA Permissible Exposure Limit (PEL): 0.01 mg/cu.m.(TWA)

ACGIH Threshold Limit Value (TLV): 0.01 mg/cu.m.(TWA)

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust should be considered.

Skin Protection: Rubber or neoprene gloves.

Eye Protection: Chemical safety goggles.

Maintain eye-wash fountain and quick-drench facilities in work area.

9. PHYSICAL CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid.

Odor: Odorless

Solubility: Infinitely soluble in water.

Boiling Point: 100 Degrees C (212°F)

Melting Point: 0 Degrees C (32°F).

Specific Gravity: 1.03

Vapor Density (Air=1): Essentially the same as water.

Vapor Pressure (mm Hg): Essentially the same as water.

Evaporation Rate: Essentially the same as water.

pH: 3.0 to 4.0

10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: None known.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: Potassium, acetic anhydride, acetylene, ammonia, hydrogen peroxide.

11. TOXICOLOGICAL INFORMATION

No toxicity data for product.

For 100% Aluminum Sulfate (product contains <2%):

orl-rat LD50: 6.2 mg/kg

For 100% Sulfamic Acid (product contains <1%):

orl-rat LD50: 1600 mg/kg

For 100% Boric Acid (product contains <1%):

orl-rat LD50: 3450 mg/kg

12. ECOLOGICAL INFORMATION

None found.

13. DISPOSAL CONSIDERATIONS

EPA Waste Number: None.

Ensure compliance with Federal, State, and local regulations.

14. TRANSPORT INFORMATION

DOT Shipping Name: Not Regulated.

DOT Number: None.

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

NFPA Hazard Ratings:

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

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, NCL of Wisconsin, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgement in determining its appropriateness for a particular purpose. Accordingly, NCL of Wisconsin, Inc. will not be responsible for damages of any kind resulting from the use of or reliance upon such information.

END OF MATERIAL SAFETY DATA SHEET