



Material Safety Data Sheet

Water hardness buffer with magnesium

Section 1 - Chemical Product and Company Identification

MSDS Name:

Water hardness buffer with magnesium

Catalog Numbers:

LC26810

Synonyms:

Buffer solution water hardness APHA

Company Identification:

LabChem Inc
 200 William Pitt Way
 Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300 or
 (011) 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
12125-02-9	Ammonium chloride	6.8
1336-21-6	Ammonium hydroxide	16
14402-88-1	Magnesium disodium ethylenediaminetetraacetate	0.5

Section 3 - Hazards Identification

Emergency Overview

Appearance: Colorless

Warning! *May cause severe eye and skin irritation with possible burns. May cause severe respiratory and digestive tract irritation with possible burns.*

Target Organs: None known.**Potential Health Effects****Eye:**

May cause redness, irritation, chemical burns, temporary blindness, ulceration.

Skin:

Skin contact may cause irritation, redness, and possibly burns.



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Ingestion:

Ingestion may result in nausea, vomiting, gastric irritation, excessive salivation; in severe cases perforation, central nervous system depression, shock, convulsions, and pulmonary edema can occur.

Inhalation:

Ammonium salts irritate the mouth, nose, throat; high levels may cause wheezing, chest pain, pulmonary edema. Additionally, severe exposure to ammonium hydroxide may produce dyspnea, shock, convulsions, cyanosis, rapid/weak pulse, central nervous system disorders.

Chronic:

Respiratory irritation, dermatitis, conjunctivitis (with possible cataracts, retinal atrophy).

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

Ingestion:

Do NOT induce vomiting. Get medical aid at once. Give oxygen if respiration is depressed. Give conscious victim large quantities of water to dilute.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Avoid breathing corrosive vapors. Move container if possible, avoid breathing vapors or dust.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 12125-02-9: Not published.

CAS# 1336-21-6: Not published.

CAS# 14402-88-1: Not published.

Explosion Limits:

Lower: Upper:



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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Area may be washed down with water.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Ammonium chloride	10 mg/m ³ TWA;20 mg/m ³ STEL	10 mg/m ³ TWA	None of the components are on this list.
Ammonium hydroxide	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Magnesium disodium ethylenediaminetetraacetate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs:

Ammonium chloride: 10 mg/m³ TWA

Ammonium chloride: 10 mg/m³ TWA

Ammonium chloride: 10 mg/m³ TWA

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles. Provide a quick-drench shower in the immediate work area.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



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Respirators:

Not required for normal use. Firefighting-- any self-contained breathing apparatus with full face piece operated in pressure-demand mode. Respirator Codes DHEW (NIOSH) Publication No. 78-210. High levels - SAF/SCBAF. Firefighting - SCBAF:PD,PP.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Colorless
Odor:	Ammonia-like
pH:	No information found.
Vapor Pressure:	No information found.
Vapor Density:	No information found.
Evaporation Rate:	< ether
Viscosity:	No information found.
Boiling Point:	Decomposes
Freezing/Melting Point:	-31°F (-35.00°C)
Decomposition Temperature:	No information found.
Solubility in water:	Soluble.
Specific Gravity/Density:	0.96
Molecular Formula:	No information found.
Molecular Weight:	No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures. Decomposes when heated.

Conditions to Avoid:

Incompatible materials, Ammonium hydroxide component decomposes when heated releasing irritating or toxic gases.

Incompatibilities with Other Materials:

Iodine heptafluoride, potassium chlorates, ammonium nitrate.

Hazardous Decomposition Products:

Hydrogen chloride, oxides of nitrogen, chlorine, ammonia.

Hazardous Polymerization:

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.
CAS# 12125-02-9: BP4550000.
CAS# 1336-21-6: BQ9625000.
CAS# 14402-88-1 unlisted.

LD50/LC50:

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.
CAS# 12125-02-9:
Oral, mouse: LD50 = 1300 mg/kg



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Oral, rat: LD50 = 1650 mg/kg.

CAS# 1336-21-6:

Oral, rat: LD50 = 350 mg/kg.

CAS# 14402-88-1:

No information found.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 12125-02-9: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 1336-21-6: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 14402-88-1: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Teratogenicity:

Reproductive:

Mutagenicity:

Neurotoxicity:

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Ammonia solution

Hazard Class: 8

UN Number: UN2672

Packing Group: PG III

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 7732-18-5 is listed on the TSCA Inventory.



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CAS# 12125-02-9 is listed on the TSCA Inventory.

CAS# 1336-21-6 is listed on the TSCA Inventory.

CAS# 14402-88-1 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

CAS# 12125-02-9: final RQ = 5000 pounds (2270 kg)

CAS# 1336-21-6: final RQ = 1000 pounds (454 kg)

CERCLA/SARA Section 313:

None of the components are on this list.

OSHA - Highly Hazardous:

None of the components are on this list.

US State

State Right to Know:

Ammonium chloride can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Ammonium hydroxide can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Massachusetts.

California Regulations:

European/International Regulations

Canadian DSL/NDSL:

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 12125-02-9 is listed on Canada's DSL List.

CAS# 1336-21-6 is listed on Canada's DSL List.

CAS# 14402-88-1 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 12125-02-9 is listed on Canada's Ingredient Disclosure List.

CAS# 1336-21-6 is listed on Canada's Ingredient Disclosure List.

CAS# 14402-88-1 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: May 4, 1998

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