



Material Safety Data Sheet

Water hardness buffer,odorless

Section 1 - Chemical Product and Company Identification

MSDS Name:

Water hardness buffer,odorless

Catalog Numbers:

LC26800

Synonyms:

Water hardness buffer,odorless,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

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
141-43-5	Ethanolamine	30
7647-01-0	Hydrogen chloride	2
80146-10-7	magnesium EDTA	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: Noneknown.

Potential Health Effects

Eye:

Vapors are irritating to the eye, liquid contact may result in clouding of the cornea, erosion, up to total corneal opacification and loss of the eye. 2% aqueous solutions applied to human eyes for seconds were without significant injury. Solutions of 0.25N-1N causes scarring of rabbit cornea, injury at pH less than 3.



Material Safety Data Sheet

Water hardness buffer, odorless

Skin:

Skin may turn brown-yellow. Deep burns are slow to heal and scarring may occur.

Ingestion:

May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea.

Inhalation:

Above 5 ppm exposure ulceration of the respiratory tract with bronchitis, pneumonia, palpitations, dental erosion, and perforation occurring; 6-8 hr latency period can occur. Frothy sputum, cyanosis, with circulatory shock, asphyxiation, gastric hemorrhage, and death occurring from severe exposure.

Chronic:

Dental erosion, jaw necrosis, dermatitis, conjunctivitis or corneal damage and scarring.

Repeated inhalation may cause inflammatory and ulcerative changes in the mouth and possibly bronchial and gastrointestinal disturbances.

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:

Get medical aid at once. Give oxygen if respiration is depressed. Induce vomiting (touch fingert to back of throat) keeping head lower than hips (prevent aspiration into lungs). If victim is conscious, give 2-4 glasses of water to dilute alkali.

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. 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 # 141-43-5 health-3; flammability-2; reactivity-0

CAS# 7647-01-0: Not published.

CAS# 80146-10-7: Not published.



Material Safety Data Sheet

Water hardness buffer, odorless

Explosion Limits:

Lower: Upper:

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. If area is to be washed down, use flooding amounts of water, otherwise keep out of drains and sewers.

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.
Ethanolamine	3 ppm TWA; 6 ppm STEL	3 ppm TWA; 8 mg/m ³ TWA	3 ppm TWA; 6 mg/m ³ TWA;
Hydrogen chloride	None of the components are on this list.	None of the components are on this list.	C 5 ppm; C 7 mg/m ³ ;
magnesium EDTA	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

Ethanolamine: 3 ppm TWA; 8 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.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



Material Safety Data Sheet

Water hardness buffer,odorless

Respirators:

Firefighting-SCBAF:PD,PPto50ppm-CCRAG/SA/SCBAF.
to 100ppm - CCRABF/GMAG/SAF/SCBAF.
Escape - GMOG/SCBA.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Color: Colorless
Odor: Slightamine-like
pH: Alkaline
Vapor Pressure: No information found.
Vapor Density: No information found.
Evaporation Rate: No information found.
Viscosity: No information found.
Boiling Point: No information found.
Freezing/Melting Point: No information found.
Decomposition Temperature: No information found.
Solubility in water: Soluble.
Specific Gravity/Density: No information found.
Molecular Formula: No information found.
Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stableundernormaltemperaturesandpressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials

Acidic conditions, metals.

Hazardous Decomposition Products

Hydrogen chloride, oxides of nitrogen, oxides of carbon.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.
CAS# 141-43-5: KJ5775000.
CAS# 7647-01-0: MW4025000.
CAS# 80146-10-7 unlisted.



Material Safety Data Sheet

Water hardness buffer,odorless

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 141-43-5:

Oral, mouse: LD50 = 700 mg/kg

Oral, rabbit: LD50 = 1 gm/kg

Oral, rat: LD50 = 1720 mg/kg

Skin, rabbit: LD50 = 1 gm/kg.

CAS# 7647-01-0:

Inhalation, mouse: LC50 =1108 ppm/1H

Inhalation, rat: LC50 =3124 ppm/1H

Oral, rabbit: LD50 = 900 mg/kg.

CAS# 80146-10-7:

No information found.

Carcinogenicity:

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

CAS# 141-43-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7647-01-0

ACGIH: Not listed.

California:Notlisted.

NIOSH: Not listed.

NTP:Notlisted.

OSHA:Notlisted.

IARC: Group 3

CAS# 80146-10-7: 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,andlocalregulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:



Material Safety Data Sheet
Water hardness buffer,odorless

Section 15 - Regulatory Information

US Federal

TSCA

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

CAS#141-43-5 is listed on the TSCA Inventory.

CAS#7647-01-0 is listed on the TSCA Inventory.

CAS#80146-10-7 is not listed on the TSCA Inventory. It is for research and development use only.

SARA Reportable Quantities (RQ)

CAS#7647-01-0: final RQ = 5000 pounds (2270 kg)

CERCLA/SARA Section 313

This material contains Hydrogen chloride (CAS#7647-01-0, 2%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous

CAS#7647-01-0 is considered highly hazardous by OSHA.

US State

State Right to Know

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

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

California Regulations

European/International Regulations

Canadian DSL/NDSL

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

CAS# 141-43-5 is listed on Canada's DSL List.

CAS# 7647-01-0 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# 141-43-5 is listed on Canada's Ingredient Disclosure List.

CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List.

CAS# 80146-10-7 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: May 3, 1998

Revision Date: November 2, 2007



Material Safety Data Sheet
Water hardness buffer,odorless

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