ISO9001 - 2000 certified

Material Safety Data Sheet

Buffer, Giordano

Section 1 - Chemical Product and Company Identification

MSDS Name:

Buffer, Giordano

Catalog Numbers:

LC12590

Synonyms:

phosphate buffer solutions, pH adjusted

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
7778-77-0	Dihydrogen potassium phosphate	0.66
7558-79-4	Sodium phosphate dibasic	0.32

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless
Caution! May cause eye and skin irritation. May cause respiratory tract irritation.
Target Organs: none known.

Potential Health Effects

Eye:

May cause eye irritation. May result in corneal injury.

Skin:

May cause skin irritation.

Ingestion:

Ingestion can result in abdominal pain, vomiting, diarrhea, shock, coma, and death.

Inhalation:

Mild exposure may cause irritation of the nose (coughing, sneezing).

Chronic:

May cause dermatitis and conjunctivitis. Repeated or prolonged exposure may cause irritation to respiratory tract. Chronic intoxication from sodium/potassium phosphates has not been reported in humans.

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.

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.

Ingestion:

Get medical aid at once. Medical personnel may do esophagoscopy, irrigate injured area with 1% acetic acid to neutralize alkali. Give conscious victim water or milk immediately to dilute alkali, allowing vomiting to occur. Do not use gastric lavage or emesis if tissue corrosion has occurred. Medical personnel should examine for corrosive injury to mouth or throat.

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# 7778-77-0: Not published.
CAS# 7558-79-4: Not published.

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. Small spills may be diluted with water and flushed away.

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.
Dihydrogen potassium phosphate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Sodium phosphate dibasic	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

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.

Respirators:

Not required for normal use. Firefighting-- any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color:	colorless
Odor:	odorless
pH:	6.4
Vapor Pressure:	14mm Hg @20°C
Vapor Density:	0.7 (H20=1)
Evaporation Rate:	>1 (ether=1)
Viscosity:	No information found.
Boiling Point:	> 212°F (> 100.00°C)
Freezing/Melting Point:	< 32°F (< 0.00°C)
Decomposition Temperature:	No information found.
Solubility in water:	Soluble.
Specific Gravity/Density:	1.0
Molecular Formula:	No information found.
Molecular Weight	No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials

Metals.

Hazardous Decomposition Products

Oxides of phosphorus, toxic fumes of sodium oxide.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.
CAS# 7778-77-0 unlisted.
CAS# 7558-79-4: WC4500000.

LD50/LC50:

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.
CAS# 7778-77-0:
No information found.CAS# 7558-79-4:
Oral, rat: LD50 = 17 gm/kg.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 7778-77-0: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 7558-79-4: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Solutions containing sodium phosphate dibasic and potassium phosphate mono and dibasic are skin, eye, and mucous membrane irritants.

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: Not regulated.

Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7778-77-0 is listed on the TSCA Inventory.
CAS# 7558-79-4 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS# 7558-79-4: final RQ = 5000 pounds (2270 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

Sodium phosphate dibasic 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# 7778-77-0 is listed on Canada's DSL List.
CAS# 7558-79-4 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# 7778-77-0 is not listed on Canada's Ingredient Disclosure List.
CAS# 7558-79-4 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: January 1, 2001
Revision Date: March 9, 2004

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made