

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	Buffer Phosphate, pH 6.4	Product Code	1217
Manufacturer	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	Effective Date	3/4/2003
		Print Date	5/3/2004

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym None.

Material Uses Laboratory Reagent

Chemical Family Inorganic Solution

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Potassium Phosphate, Monobasic	7778-77-0	0-1
SODIUM PHOSPHATE, DIBASIC, ANHYDROUS	7558-79-4	0-1
WATER	7732-18-5	99

+ Section 3. Hazards Identification

Physical State and Appearance Liquid.

Emergency Overview CAUTION !
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
MUCOUS MEMBRANES, SKIN, EYES

Routes of Entry Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes May be hazardous in case of eye contact (irritant).

Skin May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation May be hazardous in case of inhalation (lung irritant).

Ingestion May be hazardous in case of ingestion.

Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

Continued on Next Page

Medical Conditions Repeated or prolonged exposure is not known to aggravate medical condition.

Aggravated by

Overexposure:

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

+ Section 5. Fire Fighting Measures

Flammability of the Product Non-flammable.

Auto-ignition Temperature Not applicable.

Flash Points Not applicable.

Flammable Limits Not applicable.

Products of Combustion Not applicable.

Fire Hazards in Presence of Various Substances Not applicable.

Explosion Hazards in Presence of Various Substances Risks of explosion of the product in presence of static discharge: No.
Risks of explosion of the product in presence of mechanical impact: No.

Fire Fighting Media and Instructions Not applicable.

Protective Clothing (Fire) Not applicable.

Special Remarks on Fire Hazards Not available.

Special Remarks on Explosion Hazards Not available.

+ Section 6. Accidental Release Measures

Small Spill and Leak Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill and Leak Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Spill Kit Information No specific spill kit required for this product.

Section 7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapors or spray mists. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

+ Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.
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Personal Protection

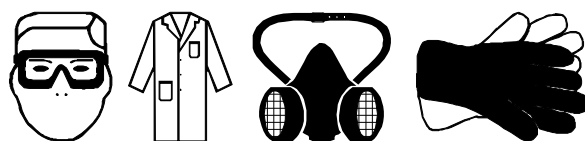
Eyes Splash goggles.

Body Lab coat.

Respiratory Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hands Gloves.

Feet Not applicable.

Protective Clothing (Pictograms)**Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name	Exposure Limits
Potassium Phosphate, Monobasic	Not available.
SODIUM PHOSPHATE, DIBASIC, ANHYDROUS	Not available.
WATER	Not available.

Section 9. Physical and Chemical Properties

Odor	Odorless.
Color	Colorless.
Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH	6.4 [Acidic.]
Boiling/Condensation Point	100°C (212°F)
Melting/Freezing Point	May start to solidify at -0.1°C (31.8°F) based on data for: WATER.
Specific Gravity	1 (Water = 1)
Vapor Pressure	Not available.
Vapor Density	Not available.
Volatility	99% (v/v).

Odor Threshold	Not available.
Evaporation Rate	0.36 (WATER) compared to (n-BUTYL ACETATE=1)
VOC	0 (%)
LogK_{ow}	Not available.
Solubility	Soluble in water.

+ Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Not available.
Rem/Incompatibility	Not available.
Hazardous Decomposition Products	None Known
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

RTECS Number:	Potassium Phosphate Sodium Phosphate, Dibasic, Anhydrous, GR Water	TC6615500 WC4500000 ZC0110000
Toxicity	LD ₅₀ : Not available. LC ₅₀ : Not available.	
Chronic Effects on Humans	Not available.	
Acute Effects on Humans	May be hazardous in case of eye contact (irritant). May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of inhalation (lung irritant). May be hazardous in case of ingestion.	
Synergetic Products (Toxicologically)	Not available.	
Irritancy	<u>Draize Test</u> : Not available.	
Sensitization	Not available.	
Carcinogenic Effects	This material is not known to cause cancer in animals or humans.	
Toxicity to Reproductive System	Not available.	
Teratogenic Effects	Not available.	
Mutagenic Effects	Not available.	

Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Toxicity of the Products of Biodegradation The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number Not available.

Treatment Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished.
ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

Section 14. Transport Information

DOT Classification Not available.

TDG Classification Not available.

IMO/IMDG Classification Not available.

ICAO/IATA Classification Not available.

Section 15. Regulatory Information

U.S. Federal Regulations TSCA 8(b) inventory: Potassium Phosphate, Monobasic; SODIUM PHOSPHATE, DIBASIC, ANHYDROUS ; WATER
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: SODIUM PHOSPHATE, DIBASIC, ANHYDROUS

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: SODIUM PHOSPHATE, DIBASIC, ANHYDROUS

: Immediate (Acute) Health Hazard

SARA 313 toxic chemical notification and release reporting: No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: SODIUM PHOSPHATE, DIBASIC, ANHYDROUS

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada) Not controlled under WHMIS (Canada).

CEPA DSL: Potassium Phosphate, Monobasic; SODIUM PHOSPHATE, DIBASIC, ANHYDROUS ; WATER

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

International Regulations

EINECS	Potassium Phosphate, Monobasic	231-913-4
	SODIUM PHOSPHATE, DIBASIC, ANHYDROUS	
		231-448-7
	WATER	231-791-2

DSCL (EEC) This product is not classified according to the EU regulations.

International Lists Australia (NICNAS): Potassium Phosphate, Monobasic; SODIUM PHOSPHATE, DIBASIC, ANHYDROUS ; WATER

Japan (MITI): Potassium Phosphate, Monobasic; SODIUM PHOSPHATE, DIBASIC, ANHYDROUS ; WATER

Korea (TCCL): Potassium Phosphate, Monobasic; SODIUM PHOSPHATE, DIBASIC, ANHYDROUS ; WATER

Philippines (RA6969): Potassium Phosphate, Monobasic; SODIUM PHOSPHATE, DIBASIC, ANHYDROUS ; WATER

China: No products were found.

State Regulations Pennsylvania RTK: SODIUM PHOSPHATE, DIBASIC, ANHYDROUS : (environmental hazard, generic environmental hazard)
Massachusetts RTK: SODIUM PHOSPHATE, DIBASIC, ANHYDROUS

New Jersey: Buffer Phosphate, pH 6.4

California prop. 65: No products were found.

Section 16. Other Information

**National Fire
Protection
Association
(U.S.A.)**



**Changed Since Last
Revision**



Notice to Reader

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.