



MATERIAL SAFETY DATA SHEET

Section I – Product Information			
Product Name or Identity:	Phosphate Buffer, pH 7.2		
Manufacturer's Name:	Acumedia Manufacturers, Inc.	Emergency Phone No.:	517/372-9200
	740 East Shiawassee	Fax No.:	517/372-2006
	Lansing, Michigan 48912	e-mail:	foodsafety@neogen.com
Date Prepared or Revised: 10/10/04			

Section II – Hazardous Ingredients / Identity Information			
Hazardous Components: (Specific Chemical Identity: Common Names)	OSHA PEL (Permissible Exposure Limits)	ACGIH TLV (Threshold Limit Value)	Toxicity Data LD ₅₀
Potassium Phosphate	N/A	N/A	SKN-RBT, >4640 mg/kg
Sodium Carbonate	N/A	N/A	ORL-RAT, 4090 mg/kg

Section III – Physical Characteristics	
Boiling Point: N/A	Specific Gravity (H₂O = 1): 2.53 (Sodium Carbonate)
Vapor Pressure (mm Hg.): N/A	Melting Point: >465°C (Potassium Phosphate), 851°C (Sodium Carbonate)
Vapor Density (AIR = 1): N/A	Evaporation Rate (Butyl Acetate = 1): N/A
Solubility in Water: 150 g/ 100 g cold water (Potassium Phosphate), 45.5 g/100 mL water @ 100 (Sodium Carbonate)	
Appearance and Odor: White crystals or powder, odorless (Potassium Phosphate), White powder, odorless (Sodium Carbonate).	

Section IV – Fire and Explosion Hazard Data	
Flash Point (Method Used): Not applicable	Flammable Limits: LEL (Lower Explosive Limit) - N/A UEL (Upper Explosive Limit) - N/A
Extinguishing Media: Suitable extinguishing agents. CO ₂ , extinguishing powder, or water spray.	
Special Fire Fighting Procedures: Fight larger fires with water or alcohol resistant foam. Firefighters should wear protective equipment and self-contained breathing apparatus. Remove contaminated clothing immediately.	
Unusual Fire and Explosion Hazards: During heating or in case of fire, poisonous gases are produced. As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.	

Section V – Reactivity Data			
Stability:	Unstable		Conditions to Avoid: Protect from light and moisture. Slightly hygroscopic.
	Stable	X	
Incompatibility (Materials to Avoid): Strong oxidizers			
Hazardous Decomposition or Byproducts: Burning may produce Phosphorus oxides, Carbon monoxide, Carbon dioxide, Nitrogen oxides. Combustion will produce Carbon dioxide, Carbon monoxide, hydrogen bromide gas.			
Hazardous Polymerization:	May Occur		Conditions to Avoid: Moisture, light and incompatible materials.
	Will Not Occur	X	

Section VI – Health Hazard Data			
Route(s) of Entry:	Inhalation? N/A	Skin? N/A	Ingestion? N/A
Health Hazards: (Acute and Chronic)	Irritant. Irritating to eyes, respiratory system, and skin. May cause harm if swallowed.		
Carcinogenicity:	NTP? No (National Toxicology Program)	IARC Monographs? No (International Agency for Research in Cancer)	OSHA Regulated? No
Signs and Symptoms of Exposure: Inhalation of dust may cause irritation to the respiratory tract. Symptoms may include coughing and difficult breathing. May cause eye irritation.			
Medical Conditions Generally Aggravated by Exposure: Phosphates are slowly and incompletely absorbed when ingested. Symptoms may include vomiting, lethargy, diarrhea, blood chemistry effects, cardiac effects and central nervous system. The toxicity of phosphates is their ability to sequester calcium. May sequester calcium and cause calcium phosphate deposits in the kidneys. Persons with impaired kidney function may be more susceptible to the effects of the substance.			
Emergency / First Aid Procedures:	Ingestion: If swallowed, seek medical attention.		
	Inhalation: Supply fresh air or oxygen. Seek medical attention immediately. In case of unconsciousness, place patient on side position for transportation. If required, provide artificial respiration.		
	Eye Contact: Rinse opened eye for at least 15 minutes under running water. Seek medical attention.		
	Skin Contact: Wash with plenty of soap and water for at least 15 minutes. If irritation develops seek medical attention.		

Section VII – Precautions for Safe Handling and Use
Accidental Release Measures: Ventilate spill area. Wipe up with damp sponge or mop. Wear suitable protective clothing. Avoid inhalation, contact with eyes, skin, and clothing. Remove contaminated clothing immediately. In case of fire, use sand, carbon dioxide, or powdered extinguishing agent.
Waste Disposal Method: Dispose in accordance with all applicable federal, state, and local environmental regulations.
Handling and Storing: Keep container tightly closed. Suitable for any general chemical storage area. Protect from moisture. Keep receptacle tightly sealed.
Other Precautions: Prevent formation of dust. Do not breathe dust. Ensure good ventilation / exhaustion at the workplace. Prevent prolonged or repeated exposure.

Section VIII – Control Measures		
Respiratory Protection (Specify Type): None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask.		
Ventilation:	Local Exhaust: 50 – 100 CFM	Special: N/A
	Mechanical (General): N/A	Other: N/A
Protective Gloves: Proper disposable gloves		Eye Protection: Chemical resistant safety goggles
Other Protective Clothing or Equipment: Long-sleeved lab coat, safety shower, and eye wash recommended.		
Work / Hygienic Practices: Follow the usual precautionary measures for handling chemicals / powder. Keep away from food and beverages. Immediately remove all soiled and contaminated clothing. Avoid contact with eyes, skin, and clothing.		

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