

MATERIAL SAFETY DATA SHEET

MSDS DATE:10/20/2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MILLONIG'S PHOSPHATE BUFFER 0.2M
SYNONYMS: N/A
PRODUCT CODES: 11582-05

MANUFACTURER: ELECTRON MICROSCOPY SCIENCES
DIVISION: 1560 INDUSTRY ROAD/P.O. BOX 550
ADDRESS: HATFIELD, PA 19440

EMERGENCY PHONE: 215-412-8400
CHEMTREC PHONE: 800-424 9300

FAX PHONE: 215-412-8450

CHEMICAL NAME: N/A
CHEMICAL FAMILY: NA

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT:</u>	<u>CAS NO.</u>	<u>%WT</u>
SODIUM PHOSPHATE MONOBASIC	10049-21-5	3-4%
SODIUM PHOSPHATE DIBASIC	7782-85-6	3-4%
SODIUM CHLORIDE	7647-14-5	0.5%
WATER	7732-18-5	BALANCE

SODIUM PHOSPHATE MONOBASIC

OSHA-PEL-TWA- 1mg/m³
OSHA-PEL-STEL- 3mg/m³
ACGIH-PEL-TWA 1mg/m³

SODIUM PHOSPHATE DIBASIC

OSHA-PEL-TWA- 1mg/m³
OSHA-PEL-STEL- 3mg/m³
ACGIH-PEL-TWA 1mg/m³

SODIUM CHLORIDE

N/A

WATER

N/A

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: N/A

ROUTES OF ENTRY: INHALATION, EYES, SKIN, INGESTION

POTENTIAL HEALTH EFFECTS

EYES: MAY CAUSE IRRITATION AND REDNESS

SKIN: MAY CAUSE IRRITATION AND REDNESS

INGESTION: PHOSPHATES ARE SLOWLY AND INCOMPLETELY ABSORBED AND SELDOM CAUSE SYSTEMIC EFFECTS. TOXICITY OF PHOSPHATES MAY BE DUE TO THEIR ABILITY TO SEQUESTER CALCIUM.

INHALATION: MATERIAL MAY IRRITATE MUCOUS MEMBRANCES AND UPPER RESPIRATORY TRACT.

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: N/A

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

CARCINOGENICITY

OSHA: N/A ACGIH: N/A NTP: N/A IARC: N/A
OTHER:

SECTION 4: FIRST AID MEASURES

EYES: FLUSH WITH WATER FOR 15 MINUTES IF IRRITATION OCCURS. SEEK MEDICAL ATTENTION

SKIN: WASH WITH SOAP AND WATER. IF IRRITATION OCCURS. SEEK MEDICAL ATTENTION.

INGESTION: WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. SEEK MEDICAL ATTENTION AS REQUIRED.

INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: N/A
(% BY VOLUME) LOWER:

FLASH POINT: N/A

F:

C:

METHOD USED:

AUTOIGNITION TEMPERATURE: N/A

F:

C:

NFPA HAZARD CLASSIFICATION

HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0
OTHER:

HMIS HAZARD CLASSIFICATION

HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0
PROTECTION: C

EXTINGUISHING MEDIA: NONCOMBUSTIBLE. USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSION HAZARDS: EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: WEAR CHEMICAL RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING. AVOID CONTACT WITH EYES, SKIN. ABSORB WITH SAND OR VERMICULITE AND

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PLACE IN CONTAINERS FOR DISPOSAL. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL IS COMPLETE.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL DRY PLACE. IRRITANT.

OTHER PRECAUTIONS: ADDITIONAL SAFETY EQUIPMENT SHOULD INCLUDE SAFETY SHOWER/EYE BATH. WASH THOROUGHLY AFTER HANDLING.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: N/A

VENTILATION: WELL VENTILATED

RESPIRATORY PROTECTION: N/A

EYE PROTECTION: SAFETY GLASSES

SKIN PROTECTION: WEAR LAB COAT AND GLOVES

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: USE GOOD LABORATORY PRACTICE WHEN WORKING WITH THIS SUBSTANCE.

WORK HYGIENIC PRACTICES: WASH THOROUGHLY AFTER HANDLING. WASH CLOTHING BEFORE REUSE.

EXPOSURE GUIDELINES: N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: TRANSPARENT, NO COLOR

ODOR: ODORLESS

PHYSICAL STATE: LIQUID

pH AS SUPPLIED: 7.4

pH (Other):

BOILING POINT: (LIKE) WATER

F:

C:

MELTING POINT: (LIKE) WATER

F:

C:

FREEZING POINT:N/A

F:

C:

VAPOR PRESSURE (mmHg): N/A

@

VAPOR DENSITY (AIR = 1): N/A

@

F:

C:

@

F:

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C:
EVAPORATION RATE: N/A

BASIS (=1):

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (con't)

SOLUBILITY IN WATER: (LIKE) WATER

PERCENT SOLIDS BY WEIGHT: N/A

PERCENT VOLATILE: N/A
BY WT/ BY VOL @

F:

C:

VOLATILE ORGANIC COMPOUNDS (VOC): N/A

WITH WATER: LBS/GAL
WITHOUT WATER: LBS/GAL

DENSITY g/cmc: 1.0079

VISCOSITY: N/A

@

F:

C:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: STABLE UNDER ORDINARY CONDITONS OF USE AND STORAGE

CONDITIONS TO AVOID (STABILITY): STRONG ACIDS

INCOMPATIBILITY (MATERIAL TO AVOID): ACIDS

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: NATURE OF DECOMPOSITION PRODUCTS IS NOT KNOWN

HAZARDOUS POLYMERIZATION: N/A

CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
RTECS# WC4500000. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: N/A

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: COMPLY WITH FEDERAL, STATE, LOCAL REGULATIONS.

RCRA HAZARD CLASS: N/A

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SECTION 13: DISPOSAL CONSIDERATIONS (con't)

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION NOT A REGULATED MATERIAL
PROPER SHIPPING NAME:
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENT:

WATER TRANSPORTATION
PROPER SHIPPING NAME:
HAZARD CLASS:
ID NUMBER: SAME
PACKING GROUP:
LABEL STATEMENTS:

AIR TRANSPORTATION
PROPER SHIPPING NAME:
HAZARD CLASS:
ID NUMBER: SAME
PACKING GROUP:
LABEL STATEMENTS:

OTHER AGENCIES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS
TSCA (TOXIC SUBSTANCE CONTROL ACT): N/A

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): 103

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): SUBJECT TO SARA SECTION 313 ANNUAL TOXIC CHEMICAL RELEASE REPORTING.

311/312 HAZARD CATEGORIES: N/A

313 REPORTABLE INGREDIENTS: N/A

STATE REGULATIONS: N/A

INTERNATIONAL REGULATIONS: N/A

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

PREPARATION INFORMATION:

DISCLAIMER: IN COMPLIANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD, 2.9 C.F.R 1910. 1200, WE ARE PROVIDING YOU WITH A MSDS FOR THE HAZARDOUS MATERIAL YOU ARE PURCHASING.
IT IS YOUR RESPONSIBILITY TO EDUCATE YOUR EMPLOYEES ON THE SAFE USE OF THE HAZARDOUS MATERIAL.

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ELECTRON MICROSCOPY SCIENCES MAKES NO PRESENTATION AS TO THE ACCURACY OF THE INFORMATION IN THE MSDS. THE INFORMATION IS BELIEVED TO BE CORRECT; HOWEVER, YOU (THE CUSTOMER), SHOULD PERFORM YOUR OWN INVESTIGATION AND INDEPENDENT VERIFICATION. IF YOU RESELL THE PRODUCT, YOU ARE RESPONSIBLE TO FORWARD THE INFORMATION IN THE MSDS TO YOUR CUSTOMER.