

DATE: 03/12/91 ACCT: 544678-53 PAGE: 1
INDEX: 03910880912 CAT NO: SB140500 PD NBR: C122855-4804
BUFFER SOLUTIONS (PM 1.00, PH 2.00)
BUFFER SOLUTIONS (PM 1.00, PH 2.00)

MATERIAL SAFETY DATA SHEET

FISHER SCIENTIFIC
HAZARD DIVISION
FAIR LAMN NJ 07410
EMERGENCY NUMBER: (201) 795-7100
CHEMICAL ASSISTANCE: (800) 424-9500
(201) 795-7100

THIS INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST
INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY OR
GUARANTEE OF THE ACCURACY OF THE INFORMATION AND WE ASSUME NO LIABILITY FOR
SUCH INFORMATION AND WE ASSUME NO LIABILITY FOR THE RESULTS FROM ITS USE.
SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE
INFORMATION FOR THEIR PARTICULAR PURPOSES.

SUBSTANCE IDENTIFICATION

SUBSTANCE: **BUFFER SOLUTIONS (PH 1.00, PH 2.00)**
TRADE NAMES/SYNONYMS:
5896; SB140; ACC03481
MOLECULAR FORMULA: MIXTURE
CAS# 7847-40-7
CERCLA RATINGS (SCALE 0-3): HEALTH=0 FIRE=0 REACTIVITY=0 PERSISTENCE=0
NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=0 REACTIVITY=0

COMPONENTS AND CONTAMINANTS

COMPONENT	PERCENT
POTASSIUM CHLORIDE CAS# 7447-40-7	PERCENT: <1
COMPONENT: HYDROCHLORIC ACID CAS# 7647-01-0	PERCENT: <1
COMPONENT: FORMALDEHYDE (37%) CAS# 50-00-0	PERCENT: 0.04
COMPONENT: WATER	PERCENT: >98.9

OTHER CONTAMINANTS: NONE
EXPOSURE LIMITS:
NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED BY OSHA, ACGIH, OR NIOSH.
THIS SUBSTANCE OR ITS COMPONENT(S) IS SUBJECT TO CALIFORNIA PROPOSITION 65
CANCER AND/OR REPRODUCTIVE TOXICITY WARNING AND RELEASE REQUIREMENTS.

PHYSICAL DATA

DESCRIPTION: CLEAR COLORLESS LIQUID (MAY BE COLOR CODED ACCORDING TO PH
AND MAY VARY WITH SUPPLIER)
BOILING POINT: 212 F (100 C) MELTING POINT: 32 F (0 C)
SPECIFIC GRAVITY: 1.0 VAPOR PRESSURE: 14 (WATER) @ 20 C
EVAPORATION RATE: (ETHER=1) >1 SOLUBILITY IN WATER: COMPLETE
VAPOR DENSITY: 0.7 (WATER)

FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD:
NEGLECTIBLE FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

FLASH POINT: NOT APPLICABLE

FIREFIGHTING MEDIA:
DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR REGULAR FOAM
(1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5),
FOR LARGER FIRES, USE WATER SPRAY, FOG OR REGULAR FOAM
(1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5).

FIREFIGHTING:
NO ACUTE HAZARD. MOVE CONTAINER FROM FIRE AREA IF POSSIBLE. AVOID BREATHING
VAPORS OR DUSTS; KEEP UPWIND.

TOXICITY

DATE: 04/12/91 ACCT: 544876-53 PAGE: 2
INDEX: 05910980912 CAT NO: SB140500 PD NBR: C121665-4904

BUFFER SOLUTIONS (PH 1.00, PH 2.00):
CARCINOGEN STATUS: NONE
BUFFER SOLUTIONS (PH 1, PH 2) MAY BE IRRITATING TO THE EYES, AND MUCOUS MEMBRANES.

HEALTH EFFECTS AND FIRST AID

INHALATION:
BUFFER SOLUTIONS (PH 1.00, PH 2.00):
ACUTE EXPOSURE- NO DATA AVAILABLE. MAY BE IRRITATING.
CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING HAS STOPPED, PERFORM ARTIFICIAL RESPIRATION. KEEP PERSON WARM AND AT REST. TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
BUFFER SOLUTIONS (PH 1.00, PH 2.00):
ACUTE EXPOSURE- NO DATA AVAILABLE. MAY BE IRRITATING.
CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH AFFECTED AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT:
BUFFER SOLUTIONS (PH 1.00, PH 2.00):
ACUTE EXPOSURE- NO DATA AVAILABLE. MAY BE IRRITATING.
CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE. OCCASIONALLY LIFTING UPPER AND LOWER LIDS. UNTIL NO EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:
BUFFER SOLUTIONS (PH 1.00, PH 2.00):
ACUTE EXPOSURE- NO DATA AVAILABLE. MAY CAUSE GASTROINTESTINAL IRRITATION.
CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- IF VICTIM IS CONSCIOUS, IMMEDIATELY GIVE 2 TO 4 GLASSES OF WATER, AND INDUCE VOMITING BY TOUCHING FINGER TO BACK OF THROAT. GET MEDICAL ATTENTION IMMEDIATELY.

ANTIDOTE:
NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

REACTIVITY

REACTIVITY:
STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

INCOMPATIBILITIES:
NONE KNOWN.

DECOMPOSITION:
THERMAL DECOMPOSITION MAY RELEASE ACRID SMOKE AND IRRITATING FUMES.

POLYMERIZATION:
HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL TEMPERATURES AND PRESSURES.

CONDITIONS TO AVOID

NO REPORTS FOUND.

SPILL AND LEAK PROCEDURES

WATER SPILL:
THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1985 (PROPOSITION 65) PROHIBITS CONTAMINATING ANY KNOWN SOURCE OF DRINKING WATER WITH SUBSTANCES KNOWN TO CAUSE CANCER AND/OR REPRODUCTIVE TOXICITY.

OCCUPATIONAL SPILL:
ABSORB WITH VERMICULITE OR OTHER SUITABLE MATERIAL. PLACE IN A SUITABLE CONTAINER (PLASTIC), FOR LATER DISPOSAL.

PROTECTIVE EQUIPMENT

VENTILATION:
PROVIDE GENERAL DILUTION VENTILATION.

DATE: 04/12/91 ACCT: 544878-33 PAGE: 3
INDEX: 05810980912 CAT NO: 58140500 PU NBR: C122655-4904

RESPIRATOR: FOLLOWING RESPIRATORS ARE RECOMMENDED BASED ON INFORMATION FOUND IN THE
PHYSICAL DATA TOXICITY AND HEALTH EFFECTS SECTIONS. THEY ARE RANKED IN
ORDER FROM MINIMUM TO MAXIMUM RESPIRATORY PROTECTION.
THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND
IN THE WORK PLACE. MUST BE BASED ON THE SPECIFIC OPERATION, MUST NOT EXCEED
THE WORKING LIMITS OF THE RESPIRATOR AND MUST BE JOINTLY APPROVED BY THE
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINE SAFETY
AND HEALTH ADMINISTRATION (MSHA).

ANY SUPPLIED-AIR RESPIRATOR OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE
PRESSURE MODE.

ANY SELF-CONTAINED BREATHING APPARATUS.

CLOTHING: PROTECTIVE CLOTHING NOT REQUIRED. AVOID REPEATED OR PROLONGED CONTACT WITH
THIS SUBSTANCE.

GLOVES: PROTECTIVE GLOVES ARE NOT REQUIRED BUT RECOMMENDED.

EYE PROTECTION: EYE PROTECTION NOT REQUIRED, BUT ADVISABLE.

AUTHORIZED - FISHER SCIENTIFIC, INC. REVISION DATE: 12/03/90
CREATION DATE: 08/19/85

-ADDITIONAL INFORMATION-

THIS INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST
INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY OF
MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO
SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS
SHOULD TAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE
INFORMATION FOR THEIR PARTICULAR PURPOSES.