

ORION MATERIAL SAFETY DATA SHEET

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I. PRODUCT IDENTIFICATION

PRODUCT NAME: ORION APPLICATION SOLUTION PH 7.00 BUFFER
CATALOG NO.: 910107 OR 330007 EFFECTIVE DATE: 06/01/91
HAZARDOUS SHIPMENT LABELING: DOT: NA IATA: NA
PREPARED BY: THOMAS F. FLYNN TITLE: QUALITY ASSURANCE CHEMIST
APPROVED BY: LYNN ORLOWITZ TITLE: DIRECTORY REGULATORY MATTERS

II. HAZARDOUS INGREDIENTS (IDENTITY INFORMATION)

HAZARDOUS COMPONENTS* CAS NO. % OSHA PEL ACGIH TLV LD 50 MG/KG
SPECIFIC CHEMICAL IDENTITY:
COMMON NAMES(S)

POTASSIUM PHOSPHATE (KH₂PO₄) 7778-77-0 0.284 NONE NONE NONE LISTED
SODIUM PHOSPHATE (NA₂HPO₄) 7558-79-4 0.413 NONE NONE 298 (IVN-DOG)
SODIUM CHROMATE (NA₂CRO₄) 7775-11-3 0.013 50 MG/M3 50 MG/M3 57 (IPR-RAT)
POTASSIUM DICHROMATE (K₂CRO₇) 778-50-9 .00305 50 MG/M3 50 MG/M3 37 (IPR-RAT)
**DEIONIZED WATER (H₂O) 7732-18-5 99.28645 NONE NONE 190,000 (IPR-MUS)

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III. PHYSICAL DATA

BOILING POINT 760 MM HG: 100 DEGREES C
FREEZING POINT: 0 DEGREES C
SPECIFIC GRAVITY (H₂O = 1): 1.0
VAPOR PRESSURE @: NA***
PH @ 25 DEGREES C: 7.00
SOLUBILITY IN WATER, % BY WT. @: MISCIBLE

VOLATILES, % BY WT.: NA

EVAPORATION RATE (BUTYL, ACETATE = 1): NA

VAPOR DENSITY (AIR = 1): NA

APPEARANCE AND ODOR: LIGHT YELLOW, ODORLESS LIQUID

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IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD): NOT FLAMMABLE

AUTOIGNITION TEMPERATURE: NA

FLAMMABLE LIMITS IN AIR, % BY VOLUME: LOWER: NA UPPER: NA

EXTINGUISHING MEDIA: WATER, CO₂, DRY CHEMICAL, FOAM, OR SPRAY

SPECIAL FIRE-FIGHTING PROCEDURES: NONE, NON-FLAMMABLE

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

V. REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: NONE

INCOMPATIBILITY (MATERIALS TO AVOID): MG AND NA* METALS

HAZARDOUS DECOMPOSITION PRODUCTS: WHEN HEATED, PHOSPHATES CAN EMIT HIGHLY TOXIC FUMES; BUT, FOR THE AMOUNT OF PHOSPHATES PRESENT IN THIS SOLUTION, IT CAN BE CONSIDERED NON-HAZARDOUS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITION TO AVOID: NONE

VI. HEALTH HAZARD DATA

ROUTE(S) OF ENTRY: INHALATION? NO SKIN? NO INGESTION? YES

HEALTH HAZARDS (ACUTE AND CHRONIC)
LOW HAZARD FOR ACUTE AND CHRONIC BECAUSE OF LOW CONCENTRATION OF SALTS.

CARCINOGENICITY: NOT FOUND ON THESE LISTS

SIGNS AND SYMPTOMS OF EXPOSURE: SKIN IRRITATION

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: COULD AGGRAVATE DISEASES OF THE SKIN.

EMERGENCY AND FIRST AID PROCEDURES:
WASH OFF CONTACT AREA WITH WATER. IF INGESTED, GIVE LARGE AMOUNTS OF WATER.
CONTACT PHYSICIAN.

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VII. PRECAUTIONS (SAFE HANDLING AND USE)

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
WASH DOWN DRAIN WITH EXCESS WATER IF LOCAL LAW ALLOWS.

WASTE DISPOSAL METHOD:
CONSULT WITH AND OBSERVE ALL FEDERAL, STATE, AND LOCAL LAWS WHEN DISPOSING OF THIS PRODUCT.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
SUITABLE FOR ANY GENERAL HANDLING AND STORAGE. NFPA RATING: SCALE (0-4);
HEALTH-0, FIRE-0, REACTIVITY-0, SPECIFIC-NONE.

OTHER PRECAUTIONS:
SARA TITLE III: RELEASES OF (NA₂HPO₄) ARE SUBJECT TO REPORTING UNDER SECTION 304 OF THIS ACT AND CERCLA. NOT AFFECTED BY CAL. PROP. 65.

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): NONE

VENTILATION: LOCAL EXHAUST: NO SPECIAL: NO
MECHANICAL (GENERAL): NO OTHER: NO

PROTECTIVE GLOVES: NO EYE PROTECTION: SAFETY GLASSES

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NO

WORK/HYGIENIC PRACTICES: NO EATING OR DRINKING WHILE WORKING WITH THIS PRODUCT.

* CHEMICALS WHICH ARE NOT CLASSIFIED AS HAZARDOUS PER U.S. OSHA GUIDELINES (29 CFR PARTS 1915.2 OR 1916.2) OR THE MASSACHUSETTS SUBSTANCE LIST (105CMR670.000 APPENDIX A) WILL NOT NECESSARILY BE LISTED ON THIS FORM EVEN THOUGH ONE OR MORE MAY BE A CONSTITUENT OF THIS PRODUCT.

* LD LO.

NON-HAZARDOUS COMPONENT

NOT APPLICABLE.

LIABILITY IS EXPRESSLY DISCLAIMED FOR ANY LOSS OR INJURY ARISING OUT OF THE USE OF THIS INFORMATION OR THE USE OF ANY MATERIALS DESIGNATED. SAFE USE OF THE MATERIALS IS THE RESPONSIBILITY OF THE USER.

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