

ATI-ORION MATERIAL SAFETY DATA SHEET

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I. PRODUCT INFORMATION

PRODUCT NAME:
ORION APPLICATION SOLUTION NITRATE IONIC STRENGTH ADJUSTOR

CATALOG NO.: 930709, 930711
EFFECTIVE DATE: 04/15/94

HAZARDOUS SHIPMENT LABELING: DOT-NONE IATA-NONE

PREPARED BY: THOMAS F. FLYNN TITLE: QUALITY ASSURANCE CHEMIST
APPROVED BY: LYNN ORLOWITZ TITLE: DIRECTOR REGULATORY MATTERS

II. HAZARDOUS INGREDIENTS (IDENTITY INFORMATION)

HAZARDOUS COMPONENTS*	CAS NO.	%	OSHA PEL	ACGIH TLV	LD 50 MG/KG
SPECIFIC CHEMICAL IDENTITY: COMMON NAME(S)					
AMMONIUM SULFATE (NH4)2SO4	7783-20-2	26.4	NONE	NONE	3,000 (ORL-RAT)
**DEIONIZED WATER (H2O)	7732-18-5	73.6	NONE	NONE	190,000 (IPR-MUS)

* CHEMICALS WHICH ARE NOT CLASSIFIED AS HAZARDOUS PER U.S. OSHA GUIDELINES (29CFR 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.

NA* NOT AVAILABLE OR NOT APPLICABLE.

** NON-HAZARDOUS COMPONENT.

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III. PHYSICAL DATA

BOILING POINT: 100 C.
SPECIFIC GRAVITY (H2O = 1): 1.15.
PH @ 25 C: (4.8 - 8.0).
VOLATILES, % BY WT.: NA
VAPOR DENSITY (AIR = 1): NA
APPEARANCE AND ODOR: CLEAR, ODORLESS LIQUID.
FREEZING POINT: -8 C
VAPOR PRESSURE @: NA*
SOLUBILITY IN WATER, % BY WT. @: MISCIBLE.
EVAPORATION RATE (BUTYL, ACETATE = 1): NA

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD): NA
AUTOIGNITION TEMPERATURE: NA

FLAMMABLE LIMITS IN AIR, % BY VOLUME: LOWER-NA UPPER-NA
EXTINGUISHING MEDIA: ANY
SPECIAL FIRE-FIGHTING PROCEDURES:
SELF-CONTAINED BREATHING APPARATUS MUST BE WORN.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NA

V. REACTIVITY DATA

STABILITY: STABLE
CONDITIONS TO AVOID: HEAT OR FLAME.

INCOMPATIBILITY (MATERIALS TO AVOID):
OXIDIZERS, BR₃, KClO₃, HYPOCHLORITE BLEACHES, NH₄NO₃.

HAZARDOUS DECOMPOSITION PRODUCTS:
EMITS TOXIC FUMES WHEN HEATED TO DECOMPOSITION.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.
CONDITION TO AVOID: NONE.

VI. HEALTH HAZARD DATA

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

HEALTH HAZARDS (ACUTE AND CHRONIC):
ACUTE: INGESTION OF LARGE DOSES CAN CAUSE NAUSEA, VOMITING AND ACIDOSIS.
CHRONIC: DIFFICULTY BREATHING, WEAKNESS. LOW HAZARD FOR SKIN AND INHALATION.

CARCINOGENICITY: NTP? IARC MONOGRAPHS? OSHA REGULATED?
NOT FOUND ON THESE LISTS.

SIGNS AND SYMPTOMS OF EXPOSURE:
COUGHING, DYSPNEA, IRRITATION OF UPPER RESPIRATORY TRACT AND STOMACH.

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY AND STOMACH AILMENTS.

EMERGENCY AND FIRST AID PROCEDURES:
SKIN: WASH WITH WATER. EYES: IRRIGATE WITH WATER, LIFTING EYE LIDS
OCCASIONALLY. INTERNAL: DILUTE WITH LARGE AMOUNTS OF WATER AND CONSULT A
PHYSICIAN.

VII. PRECAUTIONS (SAFE HANDLING AND USE)

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
VACUUM UP AND SET ASIDE FOR WASTE DISPOSAL.

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

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
KEEP WELL SEALED AND STORE AWAY FROM HEAT OR OXIDIZERS. NFPA RATING:
SCALE (0-4); HEALTH-1, FIRE-1, REACTIVITY-0, SPECIFIC-0.

OTHER PRECAUTIONS:
NO EATING OR DRINKING WHILE WORKING WITH THIS PRODUCT. SARA TITLE III:
AMMONIUM SULFATE IS SUBJECT TO REPORTING UNDER SECTIONS 313, 312 AND 311 OF
THIS LAW. NOT FOUND ON CAL. PROP. 65. COMPONENTS ARE LISTED IN THE TSCA
INVENTORY.

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): NO

VENTILATION:

LOCAL EXHAUST-NO

MECHANICAL (GENERAL)-NO

SPECIAL-NO

OTHER-NO

PROTECTIVE GLOVES: NO

EYE PROTECTION: SAFETY GLASSES

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: LAB COAT.

WORK/HYGIENIC PRACTICE:

EMERGENCY EYE WASH SHOULD BE AVAILABLE.

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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