

ATI ORION MATERIAL SAFETY DATA SHEET
ANALYTICAL TECHNOLOGY INCORPORATED

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I. PRODUCT IDENTIFICATION

PRODUCT NAME:
ORION APPLICATION SOLUTION AMMONIA AS NITROGEN STANDARD

CATALOG NO.: 951007
EFFECTIVE DATE: 11/12/94

HAZARDOUS SHIPMENT LABELING: DOT-NONE IATA-NONE

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

II. HAZARDOUS INGREDIENTS (IDENTITY INFORMATION)

HAZARDOUS COMPONENTS*	CAS NO.	%	OSHA PEL	ACGIH TLV	LD 50C MG/KG
SPECIFIC CHEMICAL IDENTITY: COMMON NAME(S)					
AMMONIUM CHLORIDE (NH4CL)	12125-02-9	0.38	10 MG/M3	10 MG/M3	1,650 (ORL-RAT)
DEIONIZED WATER (H2O)**	7732-18-5	99.62	NA*	NA	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/NOT APPLICABLE.

** NON-HAZARDOUS COMPONENT.

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III. PHYSICAL DATA

BOILING POINT (760 MM HG): 100 C
SPECIFIC GRAVITY (H2O = 1): 1.0
PH @ 25 C: 5.0 - 8.0
VOLATILES, % BY WT.: NA
VAPOR DENSITY (AIR = 1): NA
APPEARANCE AND ODOR: COLORLESS, ODORLESS LIQUID.
FREEZING POINT: 0 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): NOT FLAMMABLE.
AUTOIGNITION TEMPERATURE: NA

FLAMMABLE LIMITS IN AIR, % BY VOLUME: LOWER-NA UPPER-NA
EXTINGUISHING MEDIA: ANY.
SPECIAL FIRE-FIGHTING PROCEDURES: NONE.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE.

V. REACTIVITY DATA

STABILITY: STABLE.
CONDITIONS TO AVOID: NONE.

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

HAZARDOUS DECOMPOSITION PRODUCTS:
AMMONIA GAS WHEN MADE BASIC.

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):
INGESTION OF LARGE DOSES MAY CAUSE NAUSEA, VOMITING, ACIDOSIS. BECAUSE OF
LOW CONCENTRATION OF SALT (LESS THAN 1%), THIS PRODUCT IS A LOW CHRONIC OR
ACUTE HEALTH RISK.

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

SIGNS AND SYMPTOMS OF EXPOSURE:
COUGHING, NAUSEA, IRRITATION OF STOMACH.

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
STOMACH AILMENTS IF INGESTED.

EMERGENCY AND FIRST AID PROCEDURES:
WASH OFF AFFECTED AREA WITH WATER.

VII. PRECAUTIONS (SAFE HANDLING AND USE)

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
DILUTE AND WIPE UP SPILL WITH WATER.

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

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
SUITABLE FOR ANY GENERAL STORAGE. KEEP CLOSURE SEALED TO PROTECT PRODUCT
INTEGRITY. NFPA RATING: SCALE (0-4); HEALTH-1, FIRE-0, REACTIVITY-0,
SPECIFIC-0.

OTHER PRECAUTIONS:
SARA TITLE III: NH₄CL IS A CERCLA HAZARD AND IS SUBJECT TO SECTIONS 304,
311 AND 312 OF THE LAW. NOT FOUND ON CAL. PROP. 65 LISTING. COMPONENTS
LISTED IN EPA TSCA INVENTORY.

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): NONE

VENTILATION:

LOCAL EXHAUST-NONE

MECHANICAL (GENERAL) -NONE

SPECIAL-NONE

OTHER-NONE

PROTECTIVE GLOVES: YES

EYE PROTECTION: SAFETY GLASSES

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NA

WORK/HYGIENIC PRACTICES:

NO EATING OR DRINKING WHILE WORKING WITH THIS PRODUCT.

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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