

ORION MATERIAL SAFETY DATA SHEET

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I. PRODUCT IDENTIFICATION

PRODUCT NAME:
ORION APPLICATION SOLUTION AMMONIA STANDARD 951006

CATALOG NO.: 951006/9000012
EFFECTIVE DATE: 08/01/91

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 *:

SPECIFIC CHEMICAL IDENTITY: COMMON NAME(S)	CAS NO.	%	OSHA PEL	ACGIH TLV	LD/LO MG/KG
AMMONIUM CHLORIDE (NH4CL)	12125-02-9	0.53	10 MG/M3	10 MG/M3	1,650 (ORL-RAT)
DEIONIZED WATER (H2O)**	7732-18-5	99.47	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.

* NOT AVAILABLE OR 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 @ 25C: 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
THE 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:
COUGH, NAUSEA, IRRITATION OF STOMACH.

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

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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 THIS 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: NO

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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