

ORION MATERIAL SAFETY DATA SHEET

ORION RESEARCH INCORPORATED
THE SCHRAFFT CENTER
529 MAIN STREET
BOSTON, MA 02129 USA
TELEPHONE 617-242-3900

I. PRODUCT IDENTIFICATION

PRODUCT NAME:
ORION APPLICATION SOLUTION - IODIDE STANDARD

CATALOG NO.: 945306
EFFECTIVE DATE: 7/21/91

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*	CAS NO.	%	OSHA PEL	ACGIH TLV	LD 50 MG/KG
SODIUM IODIDE (NAI)	7681-82-5	1.5	NONE	NONE	4350 (ORL-RAT)
**DEIONIZED WATER (H2O)	7732-18-5	98.5	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 (760 MM HG): 100 C
SPECIFIC GRAVITY (H2O = 1): 1
PH @ 25 C: 5.0 - 7.5
VOLATILES, % BY WT.: *NA
VAPOR DENSITY (AIR = 1): NA
APPEARANCE AND ODOR: CLEAR, COLORLESS, ODORLESS SOLUTION
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): NONE
AUTOIGNITION TEMPERATURE: NA

FLAMMABLE LIMITS IN AIR, % BY VOLUME: LOWER-NA UPPER-NA
EXTINGUISHING MEDIA: WATER, CO2, DRY CHEMICAL
SPECIAL FIRE-FIGHTING PROCEDURES: NONE
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE; THIS SOLUTION IS NON-FLAMMABLE.

V. REACTIVITY DATA

STABILITY: STABLE
CONDITIONS TO AVOID: HEATING, STORING NEAR OXIDIZERS.

INCOMPATIBILITY (MATERIALS TO AVOID):
BF3, CLF3, FCIO4

HAZARDOUS DECOMPOSITION PRODUCTS:
HEATED TO DECOMPOSITION, CAN EMIT TOXIC FUMES OF IODINE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITION TO AVOID: NONE

VI. HEALTH HAZARD DATA

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

HEALTH HAZARDS (ACUTE AND CHRONIC):
ACUTE: LOW HEALTH HAZARD. CHRONIC: OVER LONG PERIOD OF EXPOSURE, COULD
CAUSE IRRITATION OF SKIN. IN LARGE DOSES COULD CAUSE NAUSEA, VOMITING,
HEADACHES, HIVES, BLISTERS, BOILS, AND ABNORMALITIES OF THE ENDOCRINE SYSTEM.

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

SIGNS AND SYMPTOMS OF EXPOSURE:
RED, IRRITATED SKIN, WEAKNESS, LOSS OF WEIGHT, AND GENERAL DEPRESSION.

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
SKIN AND THYROID DISEASES.

EMERGENCY AND FIRST AID PROCEDURES:
WASH OFF CONTACT AREA WITH WATER. INTERNAL EXPOSURE: GIVE LARGE AMOUNTS
OF WATER; CONSULT PHYSICIAN.

VII. PRECAUTIONS (SAFE HANDLING AND USE)

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

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

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
NFPA RATING: SCALE (0-4); HEALTH-1, FIRE-0, REACTIVITY-0, SPECIFIC-NONE.
KEEP CONTAINER SEALED.

OTHER PRECAUTIONS:
SARA TITLE III: THIS PRODUCT DOES NOT APPEAR ON ANY OF THE SARA LISTS.
NOT FOUND ON CAL. PROP. 65 LISTING. REPORTED IN EPA TSCA INVENTORY.

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): NA

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

PROTECTIVE GLOVES: NO

EYE PROTECTION: SAFETY GLASSES

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NONE

WORK/HYGIENIC PRACTICES:
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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SHEET 1 OF 2

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	NONE	NONE

PREPARED BY	TITLE	QUALITY ASSURANCE CHEMIST
THOMAS FLYNN		
APPROVED BY	TITLE	DIRECTOR REGULATORY MATTERS
LYNN ORLOWIZ		

II. HAZARDOUS INGREDIENTS (IDENTITY INFORMATION)

HAZARDOUS COMPONENTS*	CAS NO.	%	OSHA PEL	ACGIH TLV	LD
SODIUM IODIDE (NAI)	7681-82-5	1.5	NONE	NONE	4350 (ORL-RAT)

IDENTITY: COMMON
NAME(S)

**DEIONIZED WATER (H2O) 7732-18-5 98.5 NONE NONE 190,000 (IPR-MUS)

III. PHYSICAL DATA

BOILING POINT	FREEZING POINT
760 MM HG 100 'C	0 'C
SPECIFIC GRAVITY (H2O=1)	VAPOR PRESSURE @
1	N A
PH @ 'C	SOLUBILITY IN WATER, % BY WT. @
25 5.0-7.5	MISCIBLE
VOLATILES, % BY WT.	EVAPORATION RATE (BUTYL ACETATE=1)
	N A

VAPOR DENSITY (AIR=1)	APPEARANCE AND ODOR	CLEAR, COLORLESS, ODORLESS SOLUTION
N A		

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD)	NONE	AUTOIGNITION TEMPERATURE	NA
FLAMMABLE LIMITS IN AIR, % BY VOLUME:		LOWER	UPPER
		NA	NA

EXTINGUISHING MEDIA WATER, CO2, DRY CHEMICAL

SPECIAL FIRE-FIGHTING PROCEDURES

NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS

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* * NON-HAZARDOUS COMPONENT. FORM MSDS/0791

ORION MATERIAL SAFETY DATA SHEET
SHEET 2 OF 2 IODIDE STANDARD
PRODUCT NAME: ORION APPLICATION SOLUTION CATALOG NO.: 945306

V. REACTIVITY DATA
STABILITY CONDITIONS TO AVOID
UNSTABLE STABLE X HEATING, STORING NEAR OXIDIZERS.
INCOMPATIBILITY (MATERIALS TO AVOID)
BF3, CLF3, FCLO4
HAZARDOUS DECOMPOSITION PRODUCTS
HEATED TO DECOMPOSITION, CAN EMIT TOXIC FUMES OF IODINE.
HAZARDOUS POLYMERIZATION: CONDITION TO AVOID
MAY OCCUR WILL NOT OCCUR X NONE

VI. HEALTH HAZARD DATA
ROUTE(S) OF ENTRY: INHALATION? SKIN? INGESTION?
NO YES YES
HEALTH HAZARDS (ACUTE AND CHRONIC)

ACUTE: LOW HEALTH HAZARD. CHRONIC: OVER LONG PERIOD OF EXPOSURE, COULD CAUSE
IRRITATION OF SKIN. IN LARGE DOSES COULD CAUSE NAUSEA, VOMITING, HEADACHES,
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
SWEEP UP AND SET ASIDE FOR WASTE DISPOSAL.
WASTE DISPOSAL METHOD
CONSULT ALL FEDERAL, STATE, AND LOCAL LAWS AND FLUSH DOWN DRAIN IF ALLOWED.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING NFPA RATING: SCALE (0-4);
HEALTH -1, FIRE -0, REACTIVITY -0, SPECIFIC -NONE. KEEP CONTAINER SEALED.
OTHER PRECAUTIONS
SARA TITLE III: THIS PRODUCT DOES NOT APPEAR ON ANY OF THE SARA LISTS.
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RESPIRATORY PROTECTION (SPECIFY TYPE) N A
VENTILATION LOCAL EXHAUST N A SPECIAL NO
MECHANICAL (GENERAL) NO OTHER NO
PROTECTIVE GLOVES NO EYE PROTECTION SAFETY GLASSES
OTHER PROTECTIVE CLOTHING
OR EQUIPMENT NONE
WORK/HYGENIC PRACTICES EMERGENCY EYE WASH SHOULD BE AVAILABLE.