

I. PRODUCT IDENTIFICATION

10 M SODIUM 951009 OR TELEPHONE NO: 1-617-864-5400
PRODUCT NAME: HYDROXIDE CATALOG NO:951011
SODIUM HYDROXIDE CAUSTIC ALKALI
CHEMICAL NAME: CHEMICAL FAMILY:
SYNONYMS: SODIUM HYDRATE, CAUSTIC SODA, LYE, NAOH

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV(UNITS)	LD
SODIUM HYDROXIDE (CERTIFIED ACS), CAS #1310-73-2	40%	2MG/M 3 CEILING	LD LO
WATER		LIMIT	500 MG/KG
		BALANCE	

III. PHYSICAL DATA

BOILING POINT, 760 MM HG	> 100DEGC	FREEZING POINT: < 0DEGC
SPECIFIC GRAVITY (H2O=1)	-2	VAPOR PRESSURE@ N.A.
PH @ 25 DEGC	-13-14	SOLUBILITY MISCIBLE
VOLATILES, % BY WT.		IN WATER, % BY WT. @
VAPOR DENSITY(AIR=1)		EVAPORATION RATE
		(BUTYL ACETATE=1) N.A.

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT		AUTOIGNITION
(TEST METHOD)	N.A.	TEMPERATURE N.A.
FLAMMABLE LIMITS IN AIR, % BY VOLUME LOWER	N.A.	UPPER N.A.
EXTINGUISHING	ANY	
SPECIAL FIRE-FIGHTING PROCEDURES	N.A.	
UNUSUAL FIRE AND EXPLOSION HAZARDS		

N.A.
ORION RESEARCH INCORPORATED
840 MEMORIAL DRIVE
CAMBRIDGE,MA 02139
N.A. = NOT AVAILABLE OR NOT APPLICABLE

CATALOG NO:

V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
MARKEDLY CORROSIVE ACTION UPON ALL BODY TISSUES
EFFECTS OF OVEREXPOSURE BURNS, DEEP ULCERATIONS, SCARRING
EMERGENCY AND FIRST WASH AREA WITH COPIOUS AMOUNTS OF WATER. GETT
AID PROCEDURES MEDICAL ASSISTANCE IMMEDIATELY
VI. REACTIVITY DATA

STABILITY
UNSTABLE STABLE CONDITIONS

TO AVOID
INCOMPATIBILITY METALS ORGANIC HALOGENS, NITRO COMPOUNDS, AL,
(MATERIALS TO AVOID) SN, ZN
HAZARDOUS
DECOMPOSITIONS PRODUCTS
HAZARDOUS POLYMERIZATION
MAY OCCUR WILL NOT OCCUR CONDITIONS

X TO AVOID
VII. SPILL OR LEAK PROCEDURES
SSTEPS TO BE TAKEN IF MATERIAL
IS RELEASED OR SPILLED DILUTE AND NEUTRALIZE WITH 6M - HCL, WASH DOWN
AND DRAIN WITH LARGE EXCESS OF WATER
WASTE DISPOSAL METHOD

VIII. SPECIAL PROTECTION INFORMATION
RESPIRATORY PROTECTION
(SPECIFY TYPE)
VENTILATION LOCAL EXHAUST X SPECIAL
MECHANICAL OTHER
(GENERAL)
PROTECTIVE GLOVES X EYE
PROTECTION FACE SHIELD

OTHER PROTECTIVE EQUIPMENT LAB COAT
IV. SPECIAL PRECAUTIONS

PRECAUTIONARY/DOT
LABELING CORROSIVE LIQUID
OTHER HANDLING AND STORE IN COOL AREA AWAY FROM ACIDS AND OTHER
STORAGE CONDITIONS INCOMPATIBLE MATERIAL
PREPARED BY BRI DATE 12/22/83
TITLE:QUALITY ASSURANCE CHEMIST

LAST PAGE

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 - SODIUM STANDARD

CATALOG NO.: 941107

EFFECTIVE DATE: 10/03/91

HAZARDOUS SHIPMENT LABELING: DOT: NONE
IATA: NONE

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

II. HAZARDOUS INGREDIENTS (IDENTIFY INFORMATION)

HAZARDOUS COMPONENTS* CAS NO. % OSHA ACGIH LD50
SPECIFIC CHEMICAL IDENTITY: PEL TLV MG/KG
COMMON NAMES
SODIUM CHLORIDE (HALITE)** 7647-14-5 <1.0 NONE NONE 8,000 (ORL-RBT)

(THIS IS A NON-HAZARDOUS
SOLUTION)

DEIONIZED WATER (H2O)** 7732-18-5 >99.0 NA NA 629,000 (ORL-DOG)

III. PHYSICAL DATA

BOILING POINT 750 MM HG: 100 C
SPECIFIC GRAVITY (H2O=1): 1.0
PH @ 25 C: 5.5-7.5
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

* 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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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: NONE, THIS PRODUCT IS NON-FLAMMABLE.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

V. REACTIVITY DATA

STABILITY: UNSTABLE
 STABLE X
CONDITIONS TO AVOID: NONE

INCOMPATIBILITY (MATERIALS TO AVOID): NONE, SUITABLE FOR ANY GENERAL STORAGE.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

HAZARDOUS POLYMERIZATION: MAY OCCUR
 WILL NOT OCCUR X
CONDITIONS TO AVOID: NONE

VI. HEALTH HAZARD DATA

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

HEALTH HAZARDS (ACUTE AND CHRONIC):
BECAUSE OF THE LOW CONCENTRATION OF SALT (LESS THAN 1%), THIS PRODUCT IS NOT
CONSIDERED TO BE HAZARDOUS.

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

SIGNS AND SYMPTOMS OF EXPOSURE: NONE REPORTED.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: MAY CAUSE STINGING OR
IRRITATION IN AN OPEN CUT.

EMERGENCY AND FIRST AID PROCEDURES:
WASH OFF SKIN OR EYES WITH WATER.

VII. PRECAUTIONS (SAFE HANDLING AND USE)

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: CLEAN UP AND WASH
DOWN DRAIN.

WASTE DISPOSAL METHOD: WASH DOWN DRAIN WITH WATER. OBSERVE ALL FEDERAL, STATE
OR LOCAL LAWS FOR PROPER DISPOSAL PRACTICES.

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

OTHER PRECAUTIONS: KEEP SOLUTION SEALED AND AT ROOM TEMPERATURE TO INSURE
PRODUCT QUALITY. THIS PRODUCT IS NOT AFFECTED BY SARA TITLE III OR CAL.
PROP. 65. NACL IS REPORTED IN EPA 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: NO
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NA

WORK/HYGIENIC PRACTICES: NO SPECIAL REQUIREMENTS.

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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REV. B

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