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* M S D S *
*
* Canadian Centre for Occupational Health and Safety *
* * * * * Issue : 96-1 (February, 1996) *

*** IDENTIFICATION ***

MSDS RECORD NUMBER : 274382
PRODUCT NAME(S) : HYDROCHLORIC ACID (Muriatic)
DATE OF MSDS : 1989-03-01
CURRENCY NOTE : MSDS Confirmed Current: 1993-12-22 ✓

*** MANUFACTURER INFORMATION ***

MANUFACTURER : CanadianOxy Industrial Chemicals Limited Partnership
ADDRESS : 100 Amherst Avenue
North Vancouver British Columbia
Canada V7H 1S4
EMERGENCY TELEPHONE NO. : 604-929-3441

*** SUPPLIER/DISTRIBUTOR INFORMATION ***

SUPPLIER/DISTRIBUTOR : CanadianOxy Industrial Chemicals Limited Partnership
ADDRESS : 100 Amherst Avenue
North Vancouver British Columbia
Canada V7H 1S4
EMERGENCY TELEPHONE NO. : 604-929-3441

*** MATERIAL SAFETY DATA ***

Product Identifier: HYDROCHLORIC ACID (Muriatic)
MATERIAL SAFETY DATA SHEET

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SECTION 1 PRODUCT IDENTIFICATION AND USE

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Chemical Name	Chemical Family	Chemical Formula
Hydrochloric Acid	Inorganic Acid	HCl

Product Use
Acidizing of petroleum wells, boiler scale removal, pickling and metal
cleaning, chemical intermediate, ore reduction, pH control.

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SECTION 2 HAZARDOUS INGREDIENTS

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Hazardous Ingredient	w/w%	CAS Number	Pinumber
Hydrochloric Acid	31-37	7647-01-0	1789

WHMIS CLASSIFICATION: Class E - Corrosive Material
Class D - Poisonous and Infectious Material
1. Materials Causing Immediate and Serious
Toxic Effects

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SECTION 3 PHYSICAL DATA

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Physical State: Liquid

Odour & Appearance: clear pale yellow liquid; pungent odour.
Odour Threshold: 1 - 35 ppm
Vapour Pressure: 24mmHg - 150mmHg at 20 deg C
Vapour Density (air = 1): 1.3
Evaporation Rate: not available
Boiling Point: 110 deg C (20.24% HCl)
Freezing Point: -53 deg C (31.45%), -74 deg C (37.14%)
Critical Temperature: not applicable
pH: 0
Specific Gravity: 1.16 - 1.19 at 20 deg C
Solubility in Water: complete
Coeff of Water/Oil Distr.: not available

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SECTION 4 FIRE AND EXPLOSION DATA

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Flammability - If yes, under which conditions?
Yes [] No [X] Will not burn or support combustion

Means of Extinction

Use extinguishing media compatible with the acid and source of fire (dry chemical, carbon dioxide, water spray, foam).

Special Procedures

Use water spray to cool containers to prevent rupture and to reduce vapour.

Flashpoint and Method

not applicable

Upper Explosion Limit (% by volume)

not applicable

Lower Explosion Limit (% by volume)

not applicable

Auto Ignition Temp.

not applicable

Hazardous Combustion Products

none

Sensitivity to Impact

not applicable

Sensitivity to Static Discharge

not applicable

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SECTION 5 REACTIVITY DATA

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Chemical Stability - (If no, under which conditions?)

Yes [X] No [] Stable under normal conditions.

Incompatibility with other substances - (If yes, which ones)

Strong bases, acetylides, borides, carbides, silicides, other salts and metals, cyanides, sulfides.

Reactivity, and under what conditions?

Forms very toxic gas with cyanides or sulfides; flammable hydrogen with metals; potent carcinogen with formaldehyde. May polymerize violently with vinyl acetate.

Hazardous Decomposition Products

Will release toxic HCl gas when heated. Chlorine gas and flammable hydrogen may be formed at high temperatures.

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SECTION 6 TOXICOLOGICAL PROPERTIES

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Route of Entry

Skin Contact [X] Skin Absorption [] Eye Contact [X]

Inhalation Acute [X]

Inhalation Chronic []

Ingestion

[X]

Effects of Acute Exposure to Material

SKIN AND EYE: Severe burns.

INHALATION: Coughing, choking, bleeding of nose and gums, pulmonary edema.

INGESTION: Abdominal pain, nausea, vomiting, thirst, diarrhea, circulatory collapse.

Effects of Chronic Exposure to Material

Prolonged exposure may cause erosion of teeth and chronic bronchitis.

Prolonged or repeated contact to dilute solution may cause dermatitis.

(Specify Species and Route)

LD50

900mg/Kg ORAL - rat

LC50

757 ppm inhalation - 4 hr. (mouse)

Irritancy

Severe skin, eye, respiratory

Exposure Limits (ACGIH/TLV'S)

TLV-C = 5 ppm

IDLH = 100 ppm

Sensitizing capability

insufficient data

Carcinogenicity

no evidence

Reproductive Effects

insufficient data

Synergistic Materials

not available

SECTION 7

PREVENTIVE MEASURES

Personal Protective Equipment

Eye wash stations and chemical safety showers must be located near any area where hydrochloric acid is handled.

Gloves (Specify)

rubber neoprene

Respirator (Specify)

escape and <50 ppm - chemical cartridge

Eye (Specify)

chemical goggles

Footwear (Specify)

rubber boots

Clothing (Specify)

acid resistant

Other (Specify)

SCBA - emergency and IDLH

Engineering Controls (e.g. Ventilation, Enclosed Processes, Specify)

Provide general and local exhaust ventilation to meet TLV.

Leak and Spill Procedures

Contain spill if possible. Keep out of drains, sewers and surface waters.

Vapours can be knocked down with water fog or spray.

Waste Disposal

May be neutralized with soda ash (Na_2CO_3) or lime (CaO). Dispose of residue in accordance with Environmental Regulations.

Handling Procedures and Equipment

When diluting, slowly add acid to water to avoid splattering.

Storage Requirements

Store away from incompatible materials. Storage area should have acid resistant floor and approved drainage.

Special Shipping Information

Must meet Transport Canada Dangerous Goods Regulation (SOR/85-77)

Class 8 - Corrosive, Subclass 9.2 Hazard to Environment

Placard - 8

(Black on White)

PIN - 1789

SECTION 8

FIRST AID MEASURES

Get medical attention for all exposures except minor inhalation or minor skin contact.

EYES: Flush with water for at least 30 minutes.

INHALATION: Remove victim to fresh air. Restore or support breathing as required. Trained person may administer oxygen until breathing is eased.

SKIN: Remove contaminated clothing and flush skin thoroughly with water (20 minutes).

INGESTION: Dilute by drinking large quantities of water or milk. Do not induce vomiting.

SECTION 9

PREPARATION DATA

Prepared By
CanadianOxy Industrial Chemicals Limited
Partnership
WHMIS COMMITTEE

Date Issued
89/03/01
Phone Number
(604) 929-3441

Sur demande, fiches signalétiques redigees en francais disponibles

ISN: 274382

OTHER PRECAUTIONS: CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, WILL
RETAIN PRODUCT RESIDUE AND VAPORS. ALWAYS OBEY HAZARD WARNINGS AND
HANDLE EMPTY CONTAINERS AS IF THEY WERE FULL.

-----PREPARATION INFORMATION-----

CONTACT MSDS CO-ORDINATOR, VAN WATERS & ROGERS LTD.
DURING BUSINESS HOURS, PACIFIC TIME (604)-273-1441.

-----NOTICE-----

**VAN WATERS & ROGERS LTD. EXPRESSLY DISCLAIMS ALL EXPRESSED OR IMPLIED
WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH
RESPECT TO THE PRODUCT PROVIDED.**

-----REVISION-----

01/90: REVISED OTHER TOXICITY DATA.
01/93: REVIEWED IN ACCORDANCE WITH WHMIS REGULATIONS.
NO CHANGE OF INFORMATION.

===== END OF MSDS =====

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* Canadian Centre for Occupational Health and Safety *
* * * * * Issue : 96-1 (February, 1996) *

*** IDENTIFICATION ***

MSDS RECORD NUMBER : 889903
PRODUCT NAME(S) : SODIUM NITRATE
PRODUCT IDENTIFICATION : PRODUCT CODE NUMBER(S): 8020-1
MSDS: 8020-1
DATE OF MSDS : 1994-10-11 ✓

*** MANUFACTURER INFORMATION ***

MANUFACTURER : Caledon Laboratories Ltd
ADDRESS : 40 Armstrong Avenue
Georgetown Ontario
Canada L7G 4R9
Telephone: 905-877-0101
Fax: 905-877-6666
EMERGENCY TELEPHONE NO. : 613-996-6666 (CANUTEC)

DISCLAIMER :

Note from Caledon: Caledon Laboratories Ltd believes the information
contained herein is reliable and accurate. Caledon makes no warranty with

respect thereto and expressly disclaims all liability for reliance thereon. Such information is solely for your consideration, investigation, and verification.

*** MATERIAL SAFETY DATA ***

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MATERIAL SAFETY DATA SHEET

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SODIUM NITRATE

PRODUCT CODE NUMBER(S): 8020-1

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: Sodium nitrate; Chile saltpetre
Chemical Family: Inorganic salt
Chemical Formula: NaNO_3
Product Use: Laboratory chemical

HAZARDOUS INGREDIENTS OF MATERIALS

Ingredients	%	CAS No.
Sodium nitrate	99	7631-99-4
TLV Units		
10 mg/m ³		

PHYSICAL DATA

Physical State: Solid
Odour and Appearance: Colourless, transparent, odourless crystals
Odour Threshold (ppm): Not applicable
Vapour Pressure (mm Hg): Not applicable
Vapour Density (Air=1): Not applicable
Evaporation Rate: Not applicable
Boiling Point (degrees C): 380 deg C (decomposes)
Melting Point (degrees C): 308 deg C
pH: Not available
Specific Gravity: 2.267
Coefficient of Water/Oil distribution: Not available

SHIPPING DESCRIPTION

UN: 1498
T.D.G. Class: 5.1
Pkg. Group: III

REACTIVITY DATA

Chemical Stability: Stable when pure. Hygroscopic.
Incompatibility with other substances: Avoid cyanides, acetic anhydride with copper, powdered aluminum or aluminum oxide, barium thiocyanate, sodium hypophosphite, sodium thiosulphate
Reactivity: Reacts explosively with aluminum, aluminum oxide, antimony, barium thiocyanate, sodium phosphinate, sodium thiosulphate; reacts violently with acetic anhydride; may ignite fibrous organic material, charcoal, etc. on heating; an explosive compound is formed by interaction

with sodium; Al powder and moisture react at 70 deg C; Mg powder ignites in the molten salt; amidosulphates or cyanides react violently on heating.
Hazardous Decomposition Products: Oxygen and nitrogen oxides when heated.

FIRE AND EXPLOSION DATA

Flammability: Non flammable but strong oxidizer. Will ignite on friction when mixed with organic matter.
Extinguishing Media: Water spray or any means suitable for surrounding fire
Flash Point (Method Used): Not available
Autoignition Temperature: Explosive at 538 deg C
Upper Flammable Limit (% by volume): Not available
Lower Flammable Limit (% by volume): Not available
Hazardous Combustion Products: Emits nitrous oxides when heated to decomposition
Sensitivity to Impact: Explodes if shocked or heated to 538 deg C
Sensitivity to Static discharge: May be ignited by static discharge

TOXICOLOGICAL PROPERTIES AND HEALTH DATA

Toxicological Data:

LD50: (oral, rat) 3236 mg/kg
LC50: Not available

Effects of Acute Exposure to Product:

Inhaled: Toxic. Inhalation of dust irritates the respiratory tract. Symptoms may include coughing and shortness of breath.
In contact with skin: Irritating. Symptoms include redness, itching and pain.
In contact with eyes: Irritating. Symptoms include redness, itching and pain.
Ingested: Ingestion may cause gastro-enteritis, abdominal pains, vomiting, muscular weakness, irregular pulse, convulsions and collapse. 15-30 g in one dose may be fatal.

Effects of Chronic Exposure to Product:

Carcinogenicity: Not listed as a carcinogen by NTP, IARC, or OSHA
Teratogenicity: No information available
Reproductive Effects: No information available
Mutagenicity: No information available
Synergistic Products: None known

PREVENTIVE MEASURES

Engineering Controls: Local exhaust ventilation required
Respiratory Protection: NIOSH/MSHA approved respirator should be worn
Eye Protection: Use chemical safety goggles
Skin Protection: Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls as appropriate.
Other Personal Protective Equipment: Safety shower and eye wash in work area.
Leak and Spill Procedure: Cover with dry lime or soda ash and transfer carefully into container for disposal. Site of spillage should be washed thoroughly to remove all traces of oxidant.
Waste Disposal: Comply with local, provincial and federal regulations.
Handling Procedures and Equipment: Protect against physical damage. Separate

from combustible, organic or other readily oxidizable materials. Do not shock.

Storage Requirements: Store in a cool, dry, ventilated area, away from combustible materials, heat, sparks, and flame. Keep tightly closed.

FIRST AID MEASURES

Specific Measures:

Eyes: Wash eyes with plenty of water for at least fifteen (15) minutes, holding eyelids open. Seek medical attention.

Skin: Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and water for at least fifteen (15) minutes. Seek medical

attention if irritation persists. Wash clothing before reuse and discard contaminated shoes.

Inhalation: Remove patient to fresh air. Give artificial respiration if not breathing. Seek immediate medical attention.

Ingestion: If swallowed, induce vomiting by giving two glasses of water and sticking finger down throat. Seek immediate medical attention.

ADDITIONAL INFORMATION AND SOURCES USED

CCINFO disc:

Date Issued: December 1, 1988

Revision 3: October 11, 1994

MSDS: 8020-1

Prepared by: The Caledon Occupational Health &
Safety Committee (905) 877-0101

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*** IDENTIFICATION ***

MSDS RECORD NUMBER : 756024
PRODUCT NAME(S) : SODIUM NITRATE
PRODUCT IDENTIFICATION : 06SDNA
DATE OF MSDS : 1994-06-09

*** MANUFACTURER INFORMATION ***

MANUFACTURER : GRACE DEARBORN INC
ADDRESS : 3451 ERINDALE STATION ROAD
MISSISSAUGA ONTARIO
CANADA L5C 2S9
EMERGENCY TELEPHONE NO. : 905-279-2222 (OFFICE HOURS)
613-996-6666 (AFTER HOURS)

*** MATERIAL SAFETY DATA ***

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*** IDENTIFICATION ***

MSDS RECORD NUMBER : 1041026
PRODUCT NAME(S) : SODIUM CARBONATE, DILUT-IT(R) ANALYTICAL CONCENTRATE,
0.1N
PRODUCT IDENTIFICATION : J.T. BAKER MSDS NUMBER: S3247
CAS NO.: 497-19-8
PRODUCT CODES: 4683
DATE OF MSDS : 1994-01-04

*** MANUFACTURER INFORMATION ***

MANUFACTURER : J T BAKER INC
ADDRESS : 222 RED SCHOOL LANE
PHILLIPSBURG NEW JERSEY
U.S.A. 08865
EMERGENCY TELEPHONE NO. : 908-859-2151 (24-HOURS)
800-424-9300 (CHEMTREC)
800-424-8802 (NATIONAL RESPONSE CENTER)

*** MATERIAL SAFETY DATA ***

J.T.BAKER INC. 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865
M A T E R I A L S A F E T Y D A T A S H E E T
24-HOUR EMERGENCY TELEPHONE -- (908) 859-2151
CHEMTREC # (800) 424-9300 -- NATIONAL RESPONSE CENTER # (800) 424-8802

S3247 M03 SODIUM CARBONATE, DILUT-IT(R) ANALYTICAL CONCENTRATE, 0.1N PAGE:
EFFECTIVE: 01/04/94 ISSUED: 10/06/95

MALLINCKRODT BAKER, INC., 222 RED SCHOOL LANE, PHILLIPSBURG, NJ 08865

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SECTION I - PRODUCT IDENTIFICATION

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PRODUCT NAME: SODIUM CARBONATE, DILUT-IT(R) ANALYTICAL CONCENTRATE, 0.1N
COMMON SYNONYMS: N/A ~ Soda Ash
CHEMICAL FAMILY: VOLUMETRIC SOLUTIONS AND CONCENTRATES
FORMULA: Na_2CO_3 IN H_2O
FORMULA WT.: N/A
CAS NO.: 497-19-8
NIOSH/RTECS NO.: VZ4050000
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: 4683

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PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH	-	1	SLIGHT
FLAMMABILITY	-	0	NONE
REACTIVITY	-	1	SLIGHT
CONTACT	-	1	SLIGHT

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT

U.S. PRECAUTIONARY LABELING

CAUTION

MAY CAUSE IRRITATION. MAY BE HARMFUL IF SWALLOWED.
DURING USE AVOID CONTACT WITH EYES, SKIN, CLOTHING. WASH THOROUGHLY AFTER
HANDLING. WHEN NOT IN USE KEEP IN TIGHTLY CLOSED CONTAINER.

INTERNATIONAL LABELING

AVOID CONTACT WITH EYES. AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH
PLENTY OF WATER. KEEP CONTAINER TIGHTLY CLOSED.

SAF-T-DATA* STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

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EFFECTIVE: 01/04/94 ISSUED: 10/06/95

SECTION II - COMPONENTS

COMPONENT	CAS NO.	WEIGHT %	OSHA/PEL	ACGIH/TLV
WATER	7732-18-5	85-95	N/E	N/E
SODIUM CARBONATE, ANHYDROUS	497-19-8	5-15	N/E	N/E

SECTION III - PHYSICAL DATA

BOILING POINT: N/A

VAPOR PRESSURE (MMHG): N/A

MELTING POINT: N/A

VAPOR DENSITY (AIR=1): N/A

SPECIFIC GRAVITY: N/A
(H2O=1)

EVAPORATION RATE: N/A

SOLUBILITY(H2O): COMPLETE (100%)

% VOLATILES BY VOLUME: ~90
(21 C)

PH: N/A

ODOR THRESHOLD (P.P.M.): N/A

PHYSICAL STATE: LIQUID

COEFFICIENT WATER/OIL DISTRIBUTION: N/A

APPEARANCE & ODOR: CLEAR, COLORLESS LIQUID. ODORLESS.

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT (CLOSED CUP): N/A

AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS: UPPER - N/A LOWER - N/A

FIRE EXTINGUISHING MEDIA

USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

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EFFECTIVE: 01/04/94 ISSUED: 10/06/95

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

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UNUSUAL FIRE & EXPLOSION HAZARDS

NONE IDENTIFIED.

TOXIC GASES PRODUCED

CARBON MONOXIDE, CARBON DIOXIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT

NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE

NONE IDENTIFIED.

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SECTION V - HEALTH HAZARD DATA

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THRESHOLD LIMIT VALUE (TLV/TWA): NOT ESTABLISHED

SHORT-TERM EXPOSURE LIMIT (STEL): NOT ESTABLISHED

PERMISSIBLE EXPOSURE LIMIT (PEL): NOT ESTABLISHED

TOXICITY OF COMPONENTS

INTRAPERITONEAL MOUSE LD50 FOR WATER	190 G/KG
INTRAVENOUS MOUSE LD50 FOR WATER	25 G/KG
ORAL RAT LD50 FOR SODIUM CARBONATE, ANHYDROUS	5600 MG/KG
INTRAPERITONEAL MOUSE LD50 FOR SODIUM CARBONATE, ANHYDROUS	117 MG/KG
INHALATION-2HR MOUSE LC50 FOR SODIUM CARBONATE, ANHYDROUS	1200 MG/M3
CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO	

CARCINOGENICITY

NONE IDENTIFIED.

REPRODUCTIVE EFFECTS

NONE IDENTIFIED.

CONTINUED ON PAGE: 4

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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EFFECTS OF OVEREXPOSURE

INHALATION: COUGHING, DIFFICULT BREATHING, IRRITATION OF MUCOUS
MEMBRANES

SKIN CONTACT: IRRITATION

EYE CONTACT: IRRITATION

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION: INGESTION OF LARGE QUANTITIES MAY CAUSE GASTROINTESTINAL
IRRITATION, NAUSEA, VOMITING, DIARRHEA

CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS

NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY

INHALATION, INGESTION, SKIN CONTACT, EYE CONTACT

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: IF SWALLOWED AND THE PERSON IS CONSCIOUS, IMMEDIATELY GIVE
LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION.

INHALATION: IF A PERSON BREATHES IN LARGE AMOUNTS, MOVE THE EXPOSED
PERSON TO FRESH AIR.

SKIN CONTACT: IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH PLENTY OF
SOAP AND WATER FOR AT LEAST 15 MINUTES.

EYE CONTACT: IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF
WATER FOR AT LEAST 15 MINUTES.

SARA/TITLE III HAZARD CATEGORIES AND LISTS

ACUTE: NO CHRONIC: NO FLAMMABILITY: NO PRESSURE: NO REACTIVITY: NO

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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EXTREMELY HAZARDOUS SUBSTANCE: NO
CERCLA HAZARDOUS SUBSTANCE: NO
SARA 313 TOXIC CHEMICALS: NO
TSCA INVENTORY: YES

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SECTION VI - REACTIVITY DATA

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STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NONE DOCUMENTED
INCOMPATIBLES: STRONG ACIDS, ALUMINUM, OXIDES OF PHOSPHORUS,
FLUORINE, LITHIUM
DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE

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SECTION VII - SPILL & DISPOSAL PROCEDURES

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STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE

WEAR SUITABLE PROTECTIVE CLOTHING. TAKE UP WITH SAND OR OTHER
NON-COMBUSTIBLE ABSORBENT MATERIAL AND PLACE INTO CONTAINER FOR LATER
DISPOSAL. FLUSH SPILL AREA WITH WATER.

DISPOSAL PROCEDURE

DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL
ENVIRONMENTAL REGULATIONS.

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

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EYE/SKIN PROTECTION: THIS IS A LABORATORY-USE PRODUCT FOR WHICH NO
INDUSTRIAL PROTECTIVE EQUIPMENT HAS BEEN DESIGNATED.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS

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SAF-T-DATA* STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

STORAGE REQUIREMENTS

KEEP CONTAINER TIGHTLY CLOSED. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA.

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

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DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)
MARINE POLLUTANTS: NO

AIR (I.C.A.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

U.S. CUSTOMS HARMONIZATION NUMBER: 38220000000

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NOTE: WHEN HANDLING LIQUID PRODUCTS, SECONDARY PROTECTIVE CONTAINERS MUST BE USED FOR CARRYING.

-N/A = NOT APPLICABLE, OR NOT AVAILABLE;

N/E = NOT ESTABLISHED.-

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET MEETS THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT AND REGULATIONS PROMULGATED THEREUNDER (29 CFR 1910.1200 ET. SEQ.) AND THE CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. THIS DOCUMENT IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONARY HANDLING OF THE MATERIAL BY A PERSON TRAINED IN, OR SUPERVISED BY A PERSON TRAINED IN, CHEMICAL HANDLING. THE USER IS RESPONSIBLE FOR DETERMINING THE PRECAUTIONS AND DANGERS OF THIS CHEMICAL FOR HIS OR HER PARTICULAR APPLICATION. DEPENDING ON USAGE, PROTECTIVE CLOTHING INCLUDING EYE AND FACE GUARDS AND RESPIRATORS MUST BE USED TO AVOID CONTACT WITH MATERIAL OR BREATHING CHEMICAL VAPORS/FUMES.

EXPOSURE TO THIS PRODUCT MAY HAVE SERIOUS ADVERSE HEALTH EFFECTS. THIS

CHEMICAL MAY INTERACT WITH OTHER SUBSTANCES. SINCE THE POTENTIAL USES
CONTINUED ON PAGE: 7

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24-HOUR EMERGENCY TELEPHONE -- (908) 859-2151
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S3247 M03 SODIUM CARBONATE, DILUT-IT(R) ANALYTICAL CONCENTRATE, 0.1N PAGE:
EFFECTIVE: 01/04/94 ISSUED: 10/06/95

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