vopak USA - MSDS rage i oi i i



Vopak USA Inc. 6100 Carillon Point Kirkland, WA 98033 (425) 889-3400

For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300

The Version Date for this MSDS is: 11/23/1998

PRODUCT NAME:

S - 25, SODIUM METASILICATE ANHYDROUS

MSDS #: OC5420

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS NUMBER: M5420 ISSUE DATE : 10/05/98

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

MANUFACTURER'S OCCIDENTAL CHEMICAL CORPORATION, OCCIDENTAL TOWER

NAME AND 5005 LBJ FREEWAY, P.O. BOX 809050 ADDRESS: DALLAS, TX 75380 (972) (972) 404-3800

24 HOUR EMERGENCY TELEPHONE: 1-800-733-3665 OR 972-404-3228

TO REQUEST AN MSDS : 1-800-699-4970

1-800-752-5151 CUSTOMER SERVICE :

PRODUCT USE: DETERGENTS, INDUSTRIAL CLEANERS

CHEMICAL NAME : SODIUM METASILICATE ANHYDROUS

CHEMICAL FORMULA: NA2SIO3

SYNONYMS/COMMON NAMES : ANHYDROUS METASILICATE

SODIUM METASILICATE ANHYDROUS

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NUMBER / NAME

6834-92-0 SILICIC ACID (H2SIO3), DISODIUM SALT

EXPOSURE LIMITS PERCENTAGE

VOL PEL:NOT ESTABLISHED ND TLV:NOT ESTABLISHED WT 95-99.5

COMMON NAMES:

SODIUM METASILICATE

LISTED ON(LIST LEGEND BELOW):

00 19 22 23 50 51

LIST LEGEND 19 PA REQUIREMENT- 3% OR GREATER 00 TSCA INVENTORY 22 CANADIAN DOMESTIC SUB LIST 23 NJ REQUIREMENT- 1% OR GREATER
50 PHILIPPINES INVENTORY (PICCS) 51 EINECS 3. HAZARDS IDENTIFICATION * MAY CAUSE PERMANENT EYE DAMAGE. CORROSIVE TO EYES, SKIN, * RESPIRATORY AND DIGESTIVE TRACT. * WHITE GRANULAR SOLID, NO ODOR. ************* POTENTIAL HEALTH EFFECTS ROUTES OF ENTRY: INGESTION, INHALATION. TARGET ORGANS: EYES, SKIN, RESPIRATORY TRACT, GASTROINTESTINAL TRACT. SEVERE, POTENTIALLY BY ALL ROUTES OF EXPOSURE. SENSITIZING CAPABILITY: NONE KNOWN. REPRODUCTIVE EFFECTS: NONE KNOWN. CANCER INFORMATION: NONE KNOWN. SHORT-TERM EXPOSURE (ACUTE) INHALATION: MAY CAUSE COUGHING, SNEEZING OR OTHER SYMPTOMS OF UPPER RESPIRATORY TRACT IRRITATION. EXPOSURE MAY RESULT IN LUNG TISSUE DAMAGE DUE TO CORROSIVE EFFECTS. EYES: OVEREXPOSURE WILL CAUSE SEVERE BURNS AND POTENTIAL PERMANENT DAMAGE. CONTACT MAY CAUSE BURNS AND TISSUE DESTRUCTION. EXPOSURE CAN CAUSE BURNS WHICH ARE NOT IMMEDIATELY PAINFUL OR VISIBLE.

INGESTION:

CAN CAUSE SEVERE BURNS TO THE MUCOUS MEMBRANES OF THE DIGESTIVE TRACT.

REPEATED EXPOSURE (CHRONIC) NO KNOWN CHRONIC EFFECTS.

SYNERGISTIC MATERIALS: NONE KNOWN.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NONE KNOWN.

4. FIRST AID MEASURES

EYES:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER FOR AT LEAST 15 MINUTES, FORCIBLY HOLDING EYELIDS APART TO ENSURE COMPLETE IRRIGATION OF ALL EYE AND LID TISSUE. WASHING EYES WITHIN SEVERAL SECONDS IS ESSENTIAL TO ACHIEVE MAXIMUM EFFECTIVENESS. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN:

FLUSH THOROUGHLY WITH COOL WATER UNDER SHOWER WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. DISCARD NON-RUBBER SHOES. WASH CLOTHING BEFORE REUSE. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

INHALATION:

REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, HAVE TRAINED PERSON ADMINISTER OXYGEN. IF RESPIRATION STOPS, HAVE A TRAINED PERSON ADMINISTER ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. (IF AVAILABLE, GIVE SEVERAL GLASSES OF MILK.) IF VOMITING OCCURS SPONTANEOUSLY, KEEP AIRWAY CLEAR AND GIVE MORE WATER. GET MEDICAL ATTENTION IMMEDIATELY.

NOTES TO PHYSICIAN:

NO SPECIALIZED PROCEDURES. TREAT FOR CLINICAL SYMPTOMS.

5. FIRE FIGHTING MEASURES

FLASH POINT: NONFLAMMABLE

METHOD: NOT APPLICABLE

AUTOIGNITION TEMPERATURE: NONFLAMMABLE

FLAMMABLE LIMITS IN AIR, BY % VOLUME

UPPER: NOT APPLICABLE LOWER: NOT APPLICABLE

EXTINGUISHING MEDIA:

NON-FLAMMABLE / NON-COMBUSTIBLE.

USE AGENTS APPROPRIATE FOR SURROUNDING FIRE.

FIRE FIGHTING PROCEDURES:

WEAR NIOSH/MSHA APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

FIRE AND EXPLOSION HAZARD:

DIRECT CONTACT WITH WATER CREATES HEAT AND MAY CAUSE SPATTERING.

SENSITIVITY TO MECHANICAL IMPACT:

NOT SENSITIVE.

SENSITIVITY TO STATIC DISCHARGE:

NOT SENSITIVE.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

EVACUATE UNNECESSARY PERSONNEL.

FOLLOW PROTECTIVE MEASURES PROVIDED UNDER PERSONAL PROTECTION IN SECTION 8.

ENVIRONMENTAL PRECAUTIONS:

DO NOT FLUSH TO SEWER.

SPILLS OR RELEASES SHOULD BE REPORTED, IF REQUIRED, TO THE APPROPRIATE LOCAL, STATE AND FEDERAL AGENCIES.

METHODS FOR CLEANING UP:

DRY MATERIAL CAN BE SHOVELED UP, LIQUID MATERIAL CAN BE REMOVED WITH A VACUUM TRUCK. NEUTRALIZE REMAINING TRACES WITH ANY DILUTE INORGANIC ACID (HYDROCHLORIC, SULFURIC OR ACETIC ACID). FLUSH SPILL AREA WITH WATER FOLLOWED BY A LIBERAL COVERING OF SODIUM CARBONATE. ALL CLEAN-UP MATERIAL SHOULD BE REMOVED FOR PROPER TREATMENT OR DISPOSAL. SPILLS ON OTHER THAN PAVEMENT (EG. DIRT OR SAND) MAY BE HANDLED BY REMOVING THE AFFECTED SOIL AND PLACING IN APPROVED CONTAINERS.

7. HANDLING AND STORAGE

HANDLING:

WEAR PERSONAL PROTECTIVE EQUIPMENT AS DESCRIBED IN EXPOSURE CONTROLS/PERSONAL PROTECTION (SECTION 8) OF THE MSDS.

DO NOT GET IN EYES, ON SKIN OR CLOTHING.

AVOID BREATHING AIRBORNE PARTICULATES; WEAR RESPIRATORY PROTECTION WHEN EXPOSURE IS POSSIBLE.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING.

AVOID CONTACT WITH ACIDS.

SPECIAL MIXING AND HANDLING INSTRUCTIONS:

DO NOT ALLOW CONTACT WITH MATERIALS AS NOTED IN SECTION 10.

DIRECT CONTACT WITH WATER CREATES HEAT AND MAY CAUSE SPATTERING.

ALWAYS ADD PRODUCT SLOWLY TO LIQUID SURFACE, WITH CONSTANT STIRRING TO ASSURE THAT PRODUCT IS COMPLETELY DISSOLVED AS IT IS ADDED TO DISSIPATE HEAT.

STORAGE:

KEEP CONTAINER TIGHTLY CLOSED AND PROPERLY LABELED.

DO NOT STORE IN ALUMINUM CONTAINER OR USE ALUMINUM FITTINGS OR TRANSFER LINES, AS FLAMMABLE HYDROGEN GAS CAN BE GENERATED.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

USE ADEQUATE LOCAL EXHAUST VENTILATION WHERE DUST, MIST OR SPRAY MAY BE GENERATED.

PERSONAL PROTECTION

RESPIRATORY:

WEAR A NIOSH/MSHA APPROVED RESPIRATOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, WHERE AIRBORNE CONTAMINANTS MAY OCCUR.

EYE/FACE:

WEAR CHEMICAL SAFETY GOGGLES PLUS FULL FACE SHIELD TO PROTECT AGAINST CONTACT WHEN APPROPRIATE (ANSI Z87.1).

SKIN:

WEAR PROTECTIVE CLOTHING TO MINIMIZE SKIN CONTACT.

WEAR CHEMICAL RESISTANT GLOVES SUCH AS RUBBER, NEOPRENE OR VINYL.

WASH CONTAMINATED CLOTHING AND DRY BEFORE REUSE.

OTHER:

EMERGENCY SHOWER AND EYEWASH FACILITY SHOULD BE IN CLOSE PROXIMITY (ANSI Z358.1).

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE GRANULAR SOLID, NO ODOR.

ODOR THRESHOLD: NOT AVAILABLE

SPECIFIC GRAVITY (WATER=1): NOT AVAILABLE

VAPOR PRESSURE: NOT APPLICABLE

VAPOR DENSITY (AIR=1): NOT APPLICABLE

DENSITY: 54 - 62 LBS./CU. FT. (LOOSE)

EVAPORATION RATE: NOT APPLICABLE

% VOLATILES BY WT: NOT APPLICABLE

BOILING POINT: NOT APPLICABLE

FREEZING POINT: NOT APPLICABLE

MELTING POINT: 1089 C (1992 F)

SOLUBILITY IN WATER (% BY WT.): 18

PH: 12.7 IN A 1% SOLUTION @ 20 C

OCTANOL/WATER PARTITION COEFFICIENT: NOT APPLICABLE

THERMAL DECOMPOSITION TEMPERATURE: NOT AVAILABLE

OTHER: NOT AVAILABLE

VOC (G/L. BY WT.): NOT APPLICABLE

10. STABILITY AND REACTIVITY
CHEMICAL STABILITY:
X STABLE UNSTABLE
REACTS WITH:
AIR OXIDIZERS X METALS
X WATER X ACIDS OTHER
HEAT ALKALIS NONE
HAZARDOUS POLYMERIZATION:
OCCURS X WILL NOT OCCUR
COMMENTS: AVOID CONTACT WITH ACIDS.
DIRECT CONTACT WITH WATER CREATES HEAT AND MAY CAUSE SPATTERING.
PROLONGED CONTACT WITH METALS, SUCH AS ALUMINUM, TIN, LEAD AND ZINC MAY PRODUCE FLAMMABLE HYDROGEN GAS.
HAZARDOUS DECOMPOSITION PRODUCTS: NONE.
11. TOXICOLOGICAL INFORMATION
6024 02 0 CTITOTO NOTE (U20TO2) PICODIUM CNIE
6834-92-0 SILICIC ACID (H2SIO3), DISODIUM SALT ACUTE ORAL LD50: (RAT) 800 MG/KG
PRIMARY SKIN IRRITATION: (RABBIT, 24HR) 250 MG (SEVERE)
PRODUCT MAY BE CONSIDERED HIGHLY ALKALINE.
EXPOSURE TO THIS MATERIAL MAY BE EVALUATED AS:
PEL=2MG/M3 CEILING AS NAOH TLV=2MG/M3 CEILING AS NAOH
SECTION THAT FOLLOWS HAS BEEN REVISED 12. ECOLOGICAL INFORMATION
6834-92-0 SILICIC ACID (H2SIO3), DISODIUM SALT AQUATIC ECOTOX DATA FISH:
LC50 (96 HR.) (MOSQUITOFISH) 530 MG/L
INVERTEBRATES:
LC50 (48 HR.) (WATER FLEA) 113 MG/L
LC50 (96 HR.) (SCUD) 160 MG/L
LC50 (28 DAY) (POLYCHAETE) 210-250 UG/L
TERRESTRIAL ECOTOX DATA
WILDLIFE:
LD50 (ORAL) (MOUSE) 770 MG/KG
ENVIRONMENTAL FATE DATA
BIOTIC:

BIODEG.

INORGANIC, NOT SUBJECT TO BIODEGRADATION

WATER SOL.

100 %

THERE IS LIMITED INFORMATION AVAILABLE ON THE ENVIRONMENTAL FATE AND EFFECTS OF THIS MATERIAL. THIS MATERIAL HAS EXHIBITED MODERATE TOXICITY TO AQUATIC ORGANISMS, WHILE EXHIBITING SLIGHT TOXICITY TO TERRESTRIAL ORGANISMS. THIS COMPOUND IS INORGANIC AND NOT SUBJECT TO BIODEGRADATION. IT IS MISCIBLE IN WATER, NON-VOLATILE, AND WILL NOT BIOACCUMULATE IN ORGANISMS. THIS COMPOUND IS ALKALINE AND MAY RAISE THE PH OF SURFACE WATERS WITH LOW BUFFERING CAPACITY IF SPILLED. DUE CAUTION SHOULD BE EXERCISED TO PREVENT THE ACCIDENTAL RELEASE OF THIS MATERIAL TO THE ENVIRONMENT.

13. DISPOSAL CONSIDERATIONS

DISPOSE OF ALL WASTE AND CONTAMINATED EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL HEALTH AND ENVIRONMENTAL REGULATIONS.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: CORROSIVE SOLID, BASIC, INORGANIC, NOS (SODIUM METASILICATE ANHYDROUS)

DOT HAZARD CLASS: 8

DOT IDENTIFICATION NO: UN3262

DOT PACKING GROUP: II

DOT HAZARDOUS SUBSTANCE: NOT APPLICABLE

DOT MARINE POLLUTANT(S): NOT APPLICABLE

ADDITIONAL DESCRIPTION REQUIREMENT: NOT APPLICABLE

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

OSHA STANDARD 29 CFR 1910.1200 REQUIRES THAT INFORMATION BE PROVIDED TO EMPLOYEES REGARDING THE HAZARDS OF CHEMICALS BY MEANS OF A HAZARD COMMUNICATION PROGRAM INCLUDING LABELING, MATERIAL SAFETY DATA SHEETS, TRAINING AND ACCESS TO WRITTEN RECORDS. WE REQUEST THAT YOU, AND IT IS YOUR LEGAL DUTY TO, MAKE ALL INFORMATION IN THIS MATERIAL SAFETY DATA SHEET AVAILABLE TO YOUR EMPLOYEES.

TO AID OUR CUSTOMERS IN COMPLYING WITH REGULATORY REQUIREMENTS, SARA TITLE III HAZARD CATEGORIES FOR THIS PRODUCT ARE INDICATED BELOW. IF THE WORD "YES" APPEARS NEXT TO ANY CATEGORY, THIS PRODUCT MAY BE REPORTABLE BY YOU UNDER THE REQUIREMENTS OF 40.CFR.370. PLEASE CONSULT THOSE REGULATIONS FOR DETAILS.

TSCA:

ALL COMPONENTS OF THIS PRODUCT THAT ARE REQUIRED TO BE ON THE TSCA INVENTORY ARE LISTED ON THE INVENTORY.

SARA/TITLE III HAZARD CATEGORIES:

 IMMEDIATE (ACUTE)
 HEALTH:
 YES
 REACTIVE HAZARD
 NO

 DELAYED (CHRONIC)
 HEALTH:
 NO
 SUDDEN RELEASE OF PRESSURE
 NO

FIRE HAZARD: NO HMIS HAZARD RATINGS: HEALTH HAZARD: 3 FIRE HAZARD: 0 REACTIVITY: 1 STATE REGULATIONS: SEE SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS LIST LEGEND FOR APPLICABLE STATE REGULATION. CONSULT LOCAL LAWS FOR APPLICABILITY. INTERNATIONAL REGULATIONS: CONSULT THE REGULATIONS OF THE IMPORTING COUNTRY. CANADA: WHMIS HAZARD CLASS: F 16. OTHER INFORMATION FOR ADDITIONAL NON-EMERGENCY HEALTH, SAFETY OR ENVIRONMENTAL INFORMATION TELEPHONE (972) 404-2076 OR WRITE TO: OCCIDENTAL CHEMICAL CORPORATION PRODUCT STEWARDSHIP DEPARTMENT 5005 LBJ FREEWAY P.O. BOX 809050 DALLAS, TEXAS 75380 MSDS LEGEND: ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS CAS = CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER CEILING = CEILING LIMIT (15 MINUTES) CEL = CORPORATE EXPOSURE LIMIT OSHA = OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PEL = PERMISSIBLE EXPOSURE LIMIT (OSHA) STEL = SHORT TERM EXPOSURE LIMIT (15 MINUTES) TDG = TRANSPORTATION OF DANGEROUS GOODS (CANADA) TLV = THRESHOLD LIMIT VALUE (ACGIH) TWA = TIME WEIGHTED AVERAGE (8 HOURS)

WHMIS - WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM (CANADA)

* = SEE SECTION 3 HAZARDS IDENTIFICATION - REPEATED EXPOSURE(CHRONIC) INFORMATION

IMPORTANT: THE INFORMATION PRESENTED HEREIN, WHILE NOT GUARANTEED, WAS PREPARED BY COMPETENT TECHNICAL PERSONNEL AND IS TRUE AND ACCURATE TO THE BEST OF OUR KNOWLEDGE. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, STABILITY OR OTHERWISE. THIS INFORMATION IS

Vopak USA - MSDS

NOT INTENDED TO BE ALL-INCLUSIVE AS TO THE MANNER AND CONDITIONS OF USE, HANDLING AND STORAGE. OTHER FACTORS MAY INVOLVE OTHER OR ADDITIONAL SAFETY OR PERFORMANCE CONSIDERATIONS. WHILE OUR TECHNICAL PERSONNEL WILL BE HAPPY TO RESPOND TO QUESTIONS REGARDING SAFE HANDLING AND USE PROCEDURES, SAFE HANDLING AND USE REMAINS THE RESPONSIBILITY OF THE CUSTOMER. NO SUGGESTIONS FOR USE ARE INTENDED AS, AND NOTHING HEREIN SHALL BE CONSTRUED AS A RECOMMENDATION TO INFRINGE ANY EXISTING PATENTS OR VIOLATE ANY FEDERAL, STATE OR LOCAL LAWS, RULES, REGULATIONS OR ORDINANCES.

17. WARNING LABEL INFORMATION

SIGNAL WORD:

DANGER

HAZARD WARNINGS:

MAY CAUSE PERMANENT EYE DAMAGE.

CORROSIVE TO EYES, SKIN, RESPIRATORY AND DIGESTIVE TRACT.

PRECAUTIONS:

AVOID CONTACT WITH EYES, SKIN AND CLOTHING.

AVOID BREATHING DUST, VAPORS OR MIST.

DO NOT SWALLOW.

USE WITH ADEQUATE VENTILATION.

WEAR A NIOSH/MSHA APPROVED RESPIRATOR, CHEMICAL SPLASH GOGGLES, FULL FACE SHIELD, PROTECTIVE CLOTHING AND CHEMICAL RESISTANT GLOVES.

WASH THOROUGHLY AFTER HANDLING; EXPOSURE CAN CAUSE BURNS WHICH ARE NOT IMMEDIATELY PAINFUL OR VISIBLE.

WHEN MAKING SOLUTIONS, ALWAYS FOLLOW HANDLING INSTRUCTIONS.

AVOID CONTACT WITH ACIDS.

PROLONGED CONTACT WITH METALS, SUCH AS ALUMINUM, TIN, LEAD AND ZINC MAY PRODUCE FLAMMABLE HYDROGEN GAS.

KEEP CONTAINER TIGHTLY CLOSED AND PROPERLY LABELED.

BEFORE USING, READ MATERIAL SAFETY DATA SHEET (MSDS) FOR THIS MATERIAL.

FIRST AID

EYES:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER FOR AT LEAST 15 MINUTES, FORCIBLY HOLDING EYELIDS APART TO ENSURE COMPLETE IRRIGATION OF ALL EYE AND LID TISSUE. WASHING EYES WITHIN SEVERAL SECONDS IS ESSENTIAL TO ACHIEVE MAXIMUM EFFECTIVENESS. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN:

FLUSH THOROUGHLY WITH COOL WATER UNDER SHOWER WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. DISCARD NON-RUBBER SHOES. WASH CLOTHING BEFORE REUSE. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

INHALATION:

REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, HAVE TRAINED PERSON ADMINISTER OXYGEN. IF RESPIRATION STOPS, HAVE A TRAINED PERSON ADMINISTER ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. (IF AVAILABLE, GIVE SEVERAL GLASSES OF MILK.) IF VOMITING OCCURS SPONTANEOUSLY, KEEP AIRWAY CLEAR AND GIVE MORE WATER. GET MEDICAL ATTENTION IMMEDIATELY.

IN CASE OF SPILL OR LEAK: DO NOT FLUSH TO SEWER.

DRY MATERIAL CAN BE SHOVELED UP, LIQUID MATERIAL CAN BE REMOVED WITH A VACUUM TRUCK. NEUTRALIZE REMAINING TRACES WITH ANY DILUTE INORGANIC ACID (HYDROCHLORIC, SULFURIC OR ACETIC ACID). FLUSH SPILL AREA WITH WATER FOLLOWED BY A LIBERAL COVERING OF SODIUM CARBONATE. ALL CLEAN-UP MATERIAL SHOULD BE REMOVED FOR PROPER TREATMENT OR DISPOSAL. SPILLS ON OTHER THAN PAVEMENT (EG. DIRT OR SAND) MAY BE HANDLED BY REMOVING THE AFFECTED SOIL AND PLACING IN APPROVED CONTAINERS.

SPILLS OR RELEASES SHOULD BE REPORTED, IF REQUIRED, TO THE APPROPRIATE LOCAL, STATE AND FEDERAL AGENCIES.

FIRE:

NON-FLAMMABLE / NON-COMBUSTIBLE.

USE EXTINGUISHING MEDIUM AS APPROPRIATE FOR SURROUNDING FIRE.

HANDLING AND STORAGE:

DIRECT CONTACT WITH WATER CREATES HEAT AND MAY CAUSE SPATTERING.

ALWAYS ADD PRODUCT SLOWLY TO LIQUID SURFACE, WITH CONSTANT STIRRING TO ASSURE THAT PRODUCT IS COMPLETELY DISSOLVED AS IT IS ADDED TO DISSIPATE HEAT.

DO NOT STORE IN ALUMINUM CONTAINER OR USE ALUMINUM FITTINGS OR TRANSFER LINES, AS FLAMMABLE HYDROGEN GAS CAN BE GENERATED.

DISPOSAL:

DISPOSE OF ALL WASTE AND CONTAMINATED EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL HEALTH AND ENVIRONMENTAL REGULATIONS.

INFORMATION REQUIRED BY FEDERAL, STATE OR LOCAL REGULATIONS: THIS PRODUCT CONTAINS:

CAS# NAME

6834-92-0 SILICIC ACID (H2SIO3), DISODIUM SALT

HMIS RATING: HEALTH __3_ FLAMMABILITY __0_ REACTIVITY __1_

LABEL NUMBER: 0198M5420

FOR INDUSTRIAL USE ONLY

For Additional Information:

Contact: MSDS Coordinator - Vopak USA

During business hours, Pacific Time - (425) 889-3400

NOTICE

Vopak USA, expressly disclaims all express or implied warranties of merchantibility and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Vopak USA Sales Office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Vopak USA makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Vopak USA's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

END OF MSDS