

M A T E R I A L S A F E T Y D A T A S H E E T

REV: 03/29/96

CHEMTECH PRODUCTS, INC.
 1633 DES PERES ROAD
 SUITE 210
 ST. LOUIS, MO 63131
 PHONE: (314) 965-7100

HEALTH = 2 REACTIVITY = 1
 FIRE = 0 EQUIPMENT =

FOR EMERGENCIES INVOLVING
 SPILL, LEAK, FIRE OR EXPOSURE, CALL
 1-800-424-9300
 DAY OR NIGHT

HAZARD RATINGS:
 0 = LEAST 1 = SLIGHT
 2 = MODERATE 3 = HIGH
 4 = EXTREME

SECTION I ===== PRODUCT DESCRIPTION =====

PRODUCT NAME: SODIUM BIFLUORIDE
 SYNONYMS: SODIUM ACID FLUORIDE; SODIUM HYDROGENDIFLUORIDE
 CHEMICAL FAMILY: INORGANIC ACID SALT

SECTION II ===== PRODUCT COMPOSITION =====

INGREDIENT	WT %	CAS #	TLV
SODIUM HYDROGENDIFLUORIDE	100	1333-83-1	2.5 MG(F)/M3

SECTION III ===== PHYSICAL PROPERTIES =====

BOILING RANGE: DECOMPOSES
 SPECIFIC GRAVITY (WATER=1): 2.08
 VAPOR PRESSURE AT 20C (MM OF HG): < 0.01
 VAPOR DENSITY (AIR=1): NOT APPLICABLE
 SOLUBILITY IN WATER: MODERATELY SOLUBLE
 EVAPORATION RATE: NOT APPLICABLE
 % VOLATILES: 0
 APPEARANCE: WHITE CRYSTALLINE SOLID; IRRITATING ODOR

SECTION IV ===== FIRE AND EXPLOSION DATA =====

LOWER FLAMMABILITY LIMITS (% IN AIR): NOT FLAMMABLE
 FLASH POINT (AND METHOD): NOT APPLICABLE
 FLAMMABILITY CLASSIFICATION: NOT FLAMMABLE

RECOMMENDED EXTINGUISHING MEDIA: DOES NOT BURN OR SUPPORT COMBUSTION.
 USE EXTINGUISHING MEDIA SUITABLE FOR SURROUNDING MATERIALS.

SPECIAL FIRE FIGHTING PROCEDURES: FIRE FIGHTERS SHOULD BE EQUIPPED WITH APPROPRIATE PROTECTIVE APPAREL AND USE NIOSH APPROVED BREATHING MASKS.

UNUSUAL FIRE/EXPLOSION HAZARDS: MATERIAL DECOMPOSES AT TEMPERATURES IN EXCESS OF 100 C TO SODIUM FLUORIDE AND HYDROGEN FLUORIDE. VAPORS OR FUMES ARE POISONOUS AND CORROSIVE.

SECTION V ===== HEALTH INFORMATION =====

THRESHOLD LIMIT VALUE: TWA= 2.5 MG (F)/M3 OSHA PEL: TWA= 2.5 MG (F)/M3

EFFECTS OF OVEREXPOSURE:

INHALATION OF DUST OR MIST MAY CAUSE SEVERE MUCOUS MEMBRANE IRRITATION, BURNS AND, WITH PROLONGED OR REPEATED EXPOSURE, MAY CAUSE FLUOROSIS. EYE AND SKIN EXPOSURE CAUSES IRRITATION AND BURNS. PRODUCT MAY BE ABSORBED THROUGH THE SKIN AND PRODUCE SIGNS OF FLUOROSIS SUCH AS WEIGHT LOSS, BRITTLENESS OF BONES, ANEMIA, WEAKNESS AND STIFFNESS OF JOINTS. INGESTION IS HARMFUL DUE TO ACID BURNS AND FLUORIDE POISONING. INTERNAL BLEEDING MAY DEVELOP. EFFECTS MAY NOT BE IMMEDIATELY APPARENT, ESPECIALLY WITH DILUTE SOLUTIONS. FIRST AID PROCEDURES SHOULD BE FOLLOWED EVEN IN CASES OF SUSPECTED CONTACT.

EMERGENCY FIRST AID PROCEDURES:

EYE CONTACT: FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND SHOES. WASH EXPOSED AREAS WITH SOAP AND WATER. FOR IRRITATION OR BURNS, GET MEDICAL ATTENTION.

INHALATION: REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION, GET MEDICAL ATTENTION.

INGESTION: IF VICTIM IS CONSCIOUS, GIVE SOLUBLE CALCIUM SUCH AS CALCIUM GLUCONATE. DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION IMMEDIATELY.

LISTED IN THE FOLLOWING:

-INTERNATIONAL AGENCY FOR RESEARCH ON CANCER MONOGRAPHS (IARC)	NO
-NATIONAL TOXICOLOGY PROGRAM ANNUAL REPORT ON CARCINOGENS (NTP)	NO
-OSHA SUBPART Z	NO
-MASSACHUSETTS RIGHT TO KNOW LAWS	YES
-NEW JERSEY RIGHT TO KNOW LAWS	YES
-COMPREHENSIVE ENV. RESPONSE, COMPENSATION & LIABILITY ACT (CERCLA)	YES
-RESOURCE CONSERVATION & RECOVERY ACT (RCRA)	NO
-SARA 302 EXTREMELY HAZARDOUS SUBSTANCES	NO
---WARNING: THIS PRODUCT CONTAINS DETECTABLE AMOUNTS OF A CHEMICAL KNOWN	
---TO THE STATE OF CALIFORNIA TO CAUSE CANCER/BIRTH DEFECTS OR OTHER	
---REPRODUCTIVE HARM.	

SECTION VI ===== REACTIVITY DATA =====

STABILITY: STABLE

CONDITIONS TO AVOID: AVOID HEATING TO DECOMPOSITION AND CONTACT WITH INCOMPATIBLE MATERIALS.

INCOMPATIBILITY WITH OTHER MATERIALS: GLASS, CONCRETE, LEATHER, NATURAL RUBBER METALS, ORGANICS, ALKALIS, STRONG ACIDS.

HAZARDOUS DECOMPOSITION PRODUCTS: WHEN HEATED TO DECOMPOSITION, HYDROGEN FLUORIDE (HF) MAY BE RELEASED.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION VII ===== SPILL OR LEAK PROCEDURES =====

PROCEDURES IF MATERIAL IS SPILLED OR RELEASED: FOR DRY SPILLS--SWEEP UP, WASH AREA WITH WATER AND NEUTRALIZE WASH-WATER WITH SODA ASH, SLAKED LIME OR CRUSHED LIMESTONE. FOR LIQUID SPILLS--NEUTRALIZE AS DESCRIBED ABOVE.

WASTE DISPOSAL PROCEDURES: PER LOCAL, STATE AND FEDERAL POLLUTION REGULATIONS.

SECTION VIII ===== SPECIAL PROTECTION INFORMATION =====

RESPIRATORY PROTECTION: A NIOSH-APPROVED RESPIRATOR FOR DUSTS OR MISTS

LOCAL EXHAUST: RECOMMENDED

PROTECTIVE GLOVES: IMPERVIOUS

EYE PROTECTION: CHEMICAL SAFETY GOGGLES

OTHER PROTECTIVE EQUIPMENT: APPROPRIATE PROTECTIVE APPAREL DESIGNED TO PREVENT CONTACT (LONG SLEEVE SHIRT, PANTS, RUBBER APRON); EYE-WASH; SAFETY SHOWER

SECTION IX ===== ADDITIONAL PRECAUTIONS =====

USE ONLY WITH ADEQUATE VENTILATION.
AVOID BREATHING DUSTS OR MISTS.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
DO NOT SWALLOW.
WASH THOROUGHLY AFTER HANDLING.
KEEP BAG OR CONTAINER CLOSED WHEN NOT IN USE.
STORE IN COOL, DRY AREA.
AVOID CONTACT WITH GLASS, METALS, CONCRETE AND OTHER INCOMPATIBLE MATERIALS.

SECTION X ===== TRANSPORTATION REQUIREMENTS =====

DOT PROPER SHIPPING NAME: SODIUM HYDROGENDIFLUORIDE

DOT HAZARD CLASS: 8

PACKAGING GROUP: II

REPORTABLE QUANTITY: 100 LB

UN/NA IDENTIFICATION NUMBER: UN 2439

DOT LABELS REQUIRED: CORROSIVE

DOT PLACARDS REQUIRED: CORROSIVE

THE INFORMATION HEREIN IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, CHEMTECH PRODUCTS, INC. MAKES NO REPRESENTATION AS TO THE COMPLETENESS AND ACCURACY THEREOF. USERS MUST MAKE THEIR OWN DETERMINATION AS TO THE SUITABILITY OF THE PRODUCT FOR THEIR PURPOSES PRIOR TO USE.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE WITH RESPECT TO THE PRODUCT OR TO THE INFORMATION HEREIN IS MADE HEREUNDER. CHEMTECH PRODUCTS, INC. SHALL, IN NO EVENT BE RESPONSIBLE FOR ANY DAMAGES OF WHATSOEVER NATURE DIRECTLY OR INDIRECTLY RESULTING FROM THE PUBLICATION OR USE OR RELIANCE UPON INFORMATION CONTAINED HEREIN.