

1 - PRODUCT IDENTIFICATION

PRODUCT NAME: AMMONIUM FLUORIDE
FORMULA: NH₄F
FORMULA WT: 37.04
CAS NO.: 12125-01-8
NIOSH/RTECS NO.: BQ6300000
COMMON SYNONYMS: NEUTRAL AMMONIUM FLUORIDE
PRODUCT CODES: 0698,0699
EFFECTIVE: 12/10/86
REVISION #04

PRECAUTIONARY LABELLING

BAKER SAF-T-DATA(TM) SYSTEM

HEALTH	-	3	SEVERE (POISON)
FLAMMABILITY	-	0	NONE
REACTIVITY	-	1	SLIGHT
CONTACT	-	2	MODERATE

HAZARD RATINGS ARE 0 TO 4 (0 = NO HAZARD; 4 = EXTREME HAZARD).

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

PRECAUTIONARY LABEL STATEMENTS

POISON DANGER

CAUSES SEVERE IRRITATION

MAY BE FATAL IF SWALLOWED

EXCEPTIONAL CONTACT HAZARD - READ MATERIAL SAFETY DATA SHEET

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

DO NOT BREATHE DUST. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

SAF-T-DATA(TM) STORAGE COLOR CODE: BLUE (HEALTH)

2 - HAZARDOUS COMPONENTS

COMPONENT	%	CAS NO.
AMMONIUM FLUORIDE	90-100	12125-01-8

3 - PHYSICAL DATA

BOILING POINT: N/A

VAPOR PRESSURE (MM HG): N/A

MELTING POINT: N/A

VAPOR DENSITY (AIR=1): 1.3

SPECIFIC GRAVITY: 1.01
(H₂O=1)

EVAPORATION RATE: N/A
(BUTYL ACETATE=1)

SOLUBILITY(H₂O): APPRECIABLE (MORE THAN 10 %) % VOLATILES BY VOLUME: 0

APPEARANCE & ODOR: WHITE, ODORLESS CRYSTALS.

4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP: N/A

NFPA 704M RATING: 3-0-0

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

FIRE EXTINGUISHING MEDIA
USE WATER SPRAY.

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE. MOVE EXPOSED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. USE WATER TO KEEP FIRE-EXPOSED CONTAINERS COOL; DO NOT GET WATER INSIDE CONTAINERS.

TOXIC GASES PRODUCED

AMMONIA, HYDROGEN FLUORIDE, NITROGEN OXIDES

5 - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): 2.5 MG/M3 (PPM)

PERMISSIBLE EXPOSURE LIMIT (PEL): 2.5 MG/M3 (PPM)

TOXICITY: LD50 (IPR-RAT) (MG/KG) - 32

CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO

EFFECTS OF OVEREXPOSURE

INHALATION OF DUST MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT. CONTACT WITH SKIN OR EYES MAY CAUSE SEVERE IRRITATION OR BURNS. SKIN ABSORPTION MAY BE HARMFUL. INGESTION MAY CAUSE NAUSEA, VOMITING, GASTROINTESTINAL IRRITATION, AND BURNS TO MOUTH AND THROAT. CHRONIC EFFECTS MAY INCREASE BONE DENSITY, CAUSE CALCIUM DEPOSITS IN LIGAMENTS, AND MOTTLE TOOTH ENAMEL.

TARGET ORGANS

EYES, SKIN, RESPIRATORY SYSTEM, CENTRAL NERVOUS SYSTEM, KIDNEYS

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
NONE IDENTIFIED

ROUTES OF ENTRY

INHALATION, INGESTION, EYE CONTACT, SKIN CONTACT

EMERGENCY AND FIRST AID PROCEDURES

CALL A PHYSICIAN.

IF SWALLOWED, DO NOT INDUCE VOMITING; IF CONSCIOUS, GIVE WATER, MILK, OR MILK OF MAGNESIA.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.

IF SKIN BECOMES IRRITATED, IMMERSE AND SOAK THE AFFECTED AREA, FOR AT LEAST 30 MINUTES, IN ONE OF THE FOLLOWING:

ICED 0.13% AQUEOUS ZEPHIRAN CHLORIDE SOLUTION, ICED 70% ALCOHOL SOLUTION, OR ICE-COLD SATURATED SOLUTION OF MAGNESIUM SULFATE.

NOTE: DO NOT USE ZEPHIRAN CHLORIDE SOLUTION ON EYES.

6 - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: HEAT, MOISTURE

INCOMPATIBLES: STRONG OXIDIZING AGENTS, WATER, MOST COMMON METALS, STRONG BASES, GLASS, STRONG ACIDS

DECOMPOSITION PRODUCTS: HYDROGEN FLUORIDE, AMMONIA, OXIDES OF NITROGEN

7 - SPILL AND DISPOSAL PROCEDURES

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

WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.

WITH CLEAN SHOVEL, CAREFULLY PLACE MATERIAL INTO CLEAN, DRY CONTAINER AND COVER; REMOVE FROM AREA. FLUSH SPILL AREA WITH WATER.

DISPOSAL PROCEDURE

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

8 - PROTECTIVE EQUIPMENT

VENTILATION: USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV REQUIREMENTS.

RESPIRATORY PROTECTION: A RESPIRATOR WITH DUST/MIST FILTER IS RECOMMENDED. IF AIRBORNE CONCENTRATION EXCEEDS TLV, A SELF-CONTAINED BREATHING APPARATUS IS ADVISED.

EYE/SKIN PROTECTION: SAFETY GOGGLES, UNIFORM, APRON, NEOPRENE GLOVES ARE RECOMMENDED.

9 - STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA(TM) STORAGE COLOR CODE: BLUE (HEALTH)

SPECIAL PRECAUTIONS

KEEP CONTAINER TIGHTLY CLOSED. STORE IN SECURE POISON AREA.
ISOLATE FROM INCOMPATIBLE MATERIALS.

10 - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME	AMMONIUM FLUORIDE (AIR ONLY)
HAZARD CLASS	ORM-B
UN/NA	UN2505
LABELS	NONE
REPORTABLE QUANTITY	100 LBS.

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME	AMMONIUM FLUORIDE
HAZARD CLASS	6.1
UN/NA	UN2505
LABELS	HARMFUL - STOW AWAY FROM FOOD STUFFS