

FISHER SCIENTIFIC CO. CHEMICAL MFG DIV -- A665-500, AMMONIUM FLUORIDE --
6810-00-974-3621

===== Product Identification =====

Product ID:A665-500, AMMONIUM FLUORIDE

MSDS Date:12/12/1997

FSC:6810

NIIN:00-974-3621

Status Code:A

MSDS Number: CKNQK

=== Responsible Party ===

Company Name:FISHER SCIENTIFIC CO. CHEMICAL MFG DIV

Address:1 REAGENT LANE

City:FAIR LAWN

State:NJ

ZIP:07410-2802

Country:US

Inf

o Phone Num:201-796-7100

Emergency Phone Num:201-796-7100

Chemtec Ind/Phone:(800)424-9300

CAGE:1B464

=== Contractor Identification ===

Company Name:FISHER SCIENTIFIC CO. CHEMICAL MFG DIV

Address:1 REAGENT LANE

Box:City:FAIRLAWN

State:NJ

ZIP:07410-2802

Country:US

Phone:201-796-7100

CAGE:1B464

===== Composition/Information on Ingredients =====

Ingred Name:AMMONIUM FLUORIDE

CAS:12125-01-8

RTECS #:BQ6300000

= Wt:100.

EPA Rpt Qty:100 LBS

DOT Rpt Qty:100 LBS

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= Hazards Identification =====

Health Hazards Acute and Chronic: TARGET ORGANS: SKELETAL STRUCTURES.
EYE: CONTACT WITH EYES MAY CAUSE SEVERE IRRITATION, AND POSSIBLE EYE BURNS. SKIN: CAUSES SKIN BURNS. MAY CAUSE DEEP, PENETRATING ULCERS OF THE SKIN. MAY CAUSE SEVERE IRRITATION AND POSSIBLE BURNS. PENETRATION MAY CONTINUE FOR SEVERAL DAYS. INGESTION: MAY CAUSE VASCULAR COLLAPSE AND DAMAGE. CAUSES SEVERE DIGESTIVE TRACT BURNS WITH ABDOMINAL PAIN, VOMITING, AND POSSIBLE DEATH. MAY CAUSE HEMORRHAGING OF THE DIGESTIVE TRACT. INHALATION: CAUSES DELAYED LUNG INJURY. MAY CAUSE SEVERE RESPIRATORY TRACT IRRITATION. CHRONIC INHALATION AND INGESTION MAY CAUSE FLUOROSIS WITH SKELETAL ABNORMALITIES.

Explanation of Carcinogenicity: AMMONIUM FLUORIDE. ACGIH: A4-NOT CLASSIFIED AS A HUMAN CARCINOGEN (AS FLU). IARC: GROUP 3 CARCINOGEN (LISTED AS FLUORIDES, INORGANIC).

Effects of Overexposure: EYE: CONTACT WITH EYES MAY CAUSE SEVERE IRRITATION, AND POSSIBLE EYE BURNS. SKIN: CAUSES SKIN BURNS. DEEP, PENETRATING ULCERS OF THE SKIN. INGESTION: CAUSES SEVERE DIGESTIVE TRACT BURNS WITH ABDOMINAL PAIN, VOMITING, AND POSSIBLE DEATH. MAY CAUSE HEMORRHAGING OF THE DIGESTIVE TRACT. MAY CAUSE EXCESSIVE SALIVATION GASTROENTERITIS, TREMORS, CONVULSIONS, MUSCULAR WEAKNESS, AND POSSIBLE DEATH. INHALATION: MAY CAUSE SEVERE RESPIRATORY TRACT IRRITATION. MAY CAUSE COUGHING, CHILLS, FEVER, TIGHTNESS IN THE CHEST, AND CYANOSIS.

===== First Aid Measures =====

First Aid: EYES-IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MINS, LIFTING THE UPPER & LOWER LIDS. GET MEDICAL AID IMMEDIATELY. SKIN-GET MEDICAL AID IMMEDIATELY. IMMEDIATELY FLUSH SKIN WITH SOAP & WATER FOR 15 MINS WHILE REMOVING SOILED CLOTHES/SHOES. DISCARD CONTAMINATED CLOTHING IN A MANNER TO LIMIT FURTHER EXPOSURE. INGESTION-DO NOT INDUCE VOMITING. IF CONSCIOUS & ALERT, GIVE 2-4 CUPS OF MILK/WATER. NEVER GIVE ANYTHING BY MOUTH TO UNCONSCIOUS PERSONS. GET MEDICAL AID IMMEDIATELY. INHALATION-GET MEDICAL AID. REMOVE FROM EXPOSURE TO FRESH AIR IMMEDIATELY. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS HARD, GIVE OXYGEN.

===== Fire Fighting Measures =====

Extinguishing Media: USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS. USE EXTINGUISHING MEDIA MOST APPROPRIATE FOR THE SURROUNDING FIRE.
Fire Fighting Procedure

dures:WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. WEAR A SELF-CONTAINED BREATHING APPARATUS (SCBA) TO PREVENT CONTACT WITH THERMAL DECOMPOSITION PRODUCTS.

===== Accidental Release Measures =====

Spill Release Procedures:VACUUM OR SWEEP UP MATERIAL AND PLACE INTO A SUITABLE DISPOSAL CONTAINER. AVOID RUNOFF INTO STORM SEWERS AND DITCHES WHICH LEAD TO WATER WAYS. AVOID GENERATING DUSTY CONDITIONS.

===== Handling and Storage =====

Handling and Storage Precautions:STORAGE: STORE IN A TIGHTLY CLOSED CONTAINER. KEEP FROM CONTACT WITH OXIDIZING MATERIALS. STORE IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM INCOMPATIBLE SUBSTANCES. KEEP AWAY FROM WATER. KEEP AWAY FROM ACIDS. KEEP AWAY FROM STRONG BASES.

Other Precautions:HANDLING: WASH THOROUGHLY AFTER HANDLING. USE WITH ADEQUATE VENTILATION. DO NOT GET ON SKIN OR IN EYES. DO NOT INGEST OR INHALE.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:FOLLOW THE OSHA RESPIRATOR REGULATIONS FOUND IN 29CFR 1910.134 OR EUROPEAN STANDARD EN 149. ALWAYS USE A NIOSH OR EUROPEAN STANDARD EN 149 APPROVED RESPIRATOR WHEN NECESSARY.

Ventilation:LOCAL EXHAUST VENTILATION MAY BE NECESSARY TO CONTROL ANY AIR CONTAMINANTS TO WITHIN THEIR TLVS DURING THE USE OF THIS PRODUCT.

Protective Gloves:WEAR APPROPRIATE GLOVES TO PREVENT SKIN EXPOSURE.

Eye Prot

ection:WEAR APPROPRIATE PROTECTIVE EYEGLASSES OR CHEMICAL SAFETY GOGGLES

Other Protective Equipment:WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT SKIN EXPOSURE.

Supplemental Safety and Health

FISHER CATALOG NUMBERS: A665 500, A665-100, A665-500, A665500.

===== Physical/Chemical Properties =====

HCC:T4

Melt/Freeze Pt:M.P/F.P Text:DECOMPOSES

Decomp Temp:=100.C, 212.F

Vapor Pres:NEGLIGIBLE

Vapor Density:1.3

Spec Gravity:1.009

pH:ACIDIC

Evaporation Rate &

Reference:NEGLIGIBLE

Solubility in Water:SOLUBLE

Appearance and Odor:SOLID, WHITE, ODORLESS.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

REACTS WITH ACIDS. REACTS WITH BASES. CONTACTS WITH WATER MAY LEAD TO CORROSION OF METAL AND POSSIBLY THE FORMATION OF HIGHLY EXPLOSIVE HYDROGEN GAS. CORRODES GLASS. INCOMPATIBLE WITH QUININE SALTS, & SOLUBLE CALCIUM SALTS.

Stability Condition to Avoid:INCOMPATIBLE MATERIALS, MOISTURE, CONTACT

WITH WATER, ACIDS, EXCESS HEAT, STRONG OXIDANTS, BASES.

Hazardous Decomposition Products:OXIDES OF NITROGEN, HYDROGEN FLUORIDE, AMMONIA AND/OR DERIVATIVES.

===== Toxicological Information =====

Toxicological Information:LD50/LC50: NOT AVAILABLE. EPIDEMIOLOGY: NO DATA AVAILABLE. TETRATOGENICITY: NO DATA AVAILABLE. REPRODUCTIVE EFFECTS: NO DATA AVAILABLE. NEUROTOXICITY: NO DATA AVAILABLE. MUTAGENICITY: NO DATA AVAILABLE . OTHER STUDIES : NO DATA AVAILABLE.

===== Ecological Information =====

Ecological:ECOTOXICITY: NOT AVAILABLE. ENVIRONMENTAL FATE: NOT AVAILABLE. PHYSICAL/CHEMICAL: NOT AVAILABLE. OTHER: NOT AVAILABLE.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF IN A MANNER CONSISTENT WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information:U

S DOT: SHIPPING NAME: AMMONIUM FLUORIDE. HAZARD CLASS: 6.1. UN NUMBER: UN2505. PACKING GROUP: III. IMO: NO INFORMATION AVAILABLE. IATA: NO INFORMATION AVAILABLE. RID/ADR: NO INFORMATION AVAIALABLE. C ANADIAN TDG: SHIPPING NAME: AMMONIUM FLUORIDE. HAZARD CLASS: 6.1(9.2). UN NUMBER: UN2505.

===== Regulatory Information =====

SARA Title III Information:SECTION 302(RQ): CAS# 12125-01-8: FINAL RQ=100 LBS (45.4 KG). SECTION 302(TPQ): NONE OF THE

CHEMICALS IN

THIS PRODUCT HAVE A TPQ. SARA CODES: CAS# 12125-01-8: ACUTE, CHRONIC. SECTION 313: NO CHEMICALS ARE REPORTABLE UNDER SECTION 313.

Federal Regulatory Information:CLEAN AIR ACT: THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS. THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OZONE DEPLETORS. THIS MATERIAL DOES NOT CONTAIN ANY CLASS 2 OZONE DEPLETORS. TSCA : CAS#12125-01-8 IS LISTED ON THE TSCA INVENTORY. CLEAN WATER ACT: CAS# 12125-01-8 IS LISTED AS A

HAZARDOUS SUBSTANCE UNDER THE CWA. OSHA: NONE OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY H AZARDOUS BY OSHA.

State Regulatory Information:AMMONIUM FLUORIDE CAN BE FOUND ON THE FOLLOWING STATE RIGHT TO KNOW LISTS: CALIFORNIA, NEW JERSEY, FLORIDA, PENNSYLVANIA, MINNESOTA, (LISTED AS FLUORIDES), MINNESOTA, (LISTED AS FLUORIDES, INORGANIC), MASSACHUSETTS. CALIFORNIA NO SIGNIFICANT RISK LEVEL: NONE OF THE CHEMICALS OIN THIS PRODUCT ARE LISTED.

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===== Other Information =====

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