

HF SCIENTIFIC INC. -- AMMONIUM CHLORIDE -- 6810-00-951-3072

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

Product ID:AMMONIUM CHLORIDE

MSDS Date:03/01/1991

FSC:6810

NIIN:00-951-3072

MSDS Number: BJRPY

=== Responsible Party ===

Company Name:HF SCIENTIFIC INC.

Address:3052 METRO PARKWAY S.E.

City:FORT MYERS

State:FL

ZIP:33916-7539

Country:US

Info Phone Num:813-337-2116

Emergency Phone Num:813-337-2116

CAGE:58

177

=== Contractor Identification ===

Company Name:HF SCIENTIFIC INC.

Address:3170 METRO PARKWAY S.E.

City:FORT MYERS

State:FL

ZIP:33916-7539

Country:US

Phone:941-337-2116

CAGE:58177

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

Ingred Name:AMMONIUM CHLORIDE (SARA III)

CAS:12125-02-9

RTECS #:BP4550000

Fraction by Wt: >99%

Other REC Limits:NONE SPECIFIED

OSHA PEL:10 MG/M3/20 STEL

ACGIH TLV:10 MG/M3 FUME; 9192

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

=====

== Hazards Identification ==

LD50 LC50 Mixture:LD50 (ORAL RAT) IS 1650 MG/KG

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:INHALATION: AMMONIUM SALTS MAY CAUSE IRRITATION OF THE MOUTH, NOSE, AND THROAT. SEVERE EXPOSURE MAY CAUSE WHEEZING, CHEST PAIN, AND DELAYED PULMONARY EDEMA. EYE/SKIN CONTACT WILL CAUSE IRRITATION AND SEVERE REDNESS. CHRONIC EXPOSURE MAY CAU

SE CONJUNCTIVITIS. INGESTION: NAUSEA, VOMITING, GASTRIC IRRITATION, COMA.

Explanation of Carcinogenicity:THIS CHEMICAL PRODUCT IS NOT LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN.

Effects of Overexposure:EYE/SKIN/RESPIRATORY TRACT:BURNING, SENSATION OF HEAT, IRRITATION IN GENERAL. INGESTION: LARGE AMOUNTS CAN CAUSE GASTROINTESTINAL UPSET, VOMITING, AND ABDOMINAL PAIN. REDNESS OF EYES/SKIN IS AN INDICATION OF OVEREXPOSURE.

Medical Cond Aggravated by Exposure:PERSONS WITH A HISTORY OF EYE,

SKIN, IMPAIRED KIDNEY OR LIVER FUNCTION, OR RESPIRATORY DISORDERS MAY BE AT INCREASED RISK FROM EXPOSURE.

== First Aid Measures ==

First Aid:EYE: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION. SKIN: WIPE EXCESS FROM SKIN AND REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER. INHALATION: REMOVE TO FRESH AIR. GET MEDICAL ATTENTION FOR ANY BREATHING DIFFICULTY. INGESTION: GIVE

2-4 GLASSES OF WATER AS SOON AS POSSIBLE AND CALL A PHYSICIAN AT ONCE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

== Fire Fighting Measures ==

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL AS APPROPRIATE FOR SURROUNDINGS. MATERIAL ITSELF IS NON-FLAMMABLE

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONT

AINERS WITH WATER SPRAY. CONTAIN RUNOFF.

Unusual Fire/Explosion Hazard:COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS. MATERIAL MAY BE FIRE HAZARD IF DECOMPOSED INTO AMMONIA AND HYDROGEN CHLORIDE

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

Spill Release Procedures:WEAR PROTECTIVE EQUIPMENT AND VENTILATE AREA AS REQUIRED. ABSORB SMALL SPILL WITH INERT MATERIAL OR SWEEP UP. VACUUMING OF WET SWEEPING MAY BE USED TO AVOID DUST CREATION. DIKE TO RETAIN LARGE SPILL. PLACE WASTE IN DOT APPROVED CONTAINER FOR DISPOSAL

Neutralizing Agent:NONE.

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

Handling and Storage Precautions:STORE IN A COOL, DRY, WELL VENTILATED AREA AWAY FROM SOURCES OF IGNITION. KEEP CONTAINER CLOSED WHEN NOT IN USE. PROTECT FROM PHYSICAL DAMAGE.

Other Precautions:PROTECT EYES.

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

Respiratory Prot

ection:IF VENTILATION DOES NOT MAINTAIN INHALATION EXPOSURES BELOW PEL (TLV), USE NIOSH/MSHA APPROVED RESPIRATOR AS PER CURRENT 29 CFR 1910.134, INSTRUCTIONS/WARNINGS AND NIOSH-RESPIRATOR SELECTION.

Ventilation:MECHANICAL (GENERAL) VENTILATION IS USUALLY ADEQUATE. LOCAL EXHAUST TO KEEP TLV WITH LIMITS IF REQUIRED.

Protective Gloves:PROTECTIVE GLOVES

Eye Protection:SAFETY GLASSES/CHEMICAL SPLASH GOGGLES

Other Protective Equipment:SAFETY SHOWER AND EYE BATH. INDUSTRIAL TYPE WO

RK CLOTHING AND APRON AS REQUIRED TO AVOID PROLONGED OR REPEATED CONTACT.

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING. LAUNDRER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

MANUFACTURER RECOMMENDS THAT CONTACT LENSES NOT BE WORN.

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

HCC:N1

Boiling Pt:B.P. Text:980F,527C

Melt/Freeze Pt:M.P/F.P Text:640F,338C

Vapor Pres:1 MM @320F

Vapor Density:1.9

Spec Gravity:

1.5

Solubility in Water:29.7 G/ML @ 32F

Appearance and Odor:WHITE CRYSTALLINE POWDER; NO ODOR

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS, STRONG ACIDS, STRONG BASES, SILVER SALTS,
POTASSIUM CHLORATE, AMMONIUM NITRATE, BRF3, IF7.

Stability Condition to Avoid:HIGH HEAT (ABOVE MELTING POINT), OPEN
FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products:HYDROGEN CHLORIDE AND AMMONIA.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE
FEDERAL, STATE AND LOCAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department
of Defense. The United States of America in no manner whatsoever,
expressly or implied, warrants this information to be accurate and
disclaims all liability for its use. Any
person utilizing this
document should seek competent professional advice to verify and
assume responsibility for the suitability of this information to their
particular situation.