AMMONIUM CHLORIDE

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: AMMONIUM CHLORIDE
COMMON SYNONYMS: SAL AMMONIAC
CHEMICAL FAMILY: AMMONIUM SALTS
FORMULA: NH₄Cl
FORMULA WT.: 53.49
CAS NO.: 12125-02-9
NIOSH/RTECS NO.: BP4550000
PRODUCT USE: LABORATORY REAGENT
PRODUCT CODES: 0667, 0666, 0660

PRECAUTIONARY LABELING

BAKER SAF-T-DATA* SYSTEM

HEALTH - 1 SLIGHT
FLAMMABILITY - 0 NONE
REACTIVITY - 0 NONE
CONTACT - 1 SLIGHT

LABORATORY PROTECTIVE EQUIPMENT

GOGGLES; LAB COAT

U.S. PRECAUTIONARY LABELING

CAUTION
MAY CAUSE IRRITATION. MAY BE HARMFUL IF SWALLOWED.
DURING USE AVOID CONTACT WITH EYES, SKIN, CLOTHING. WASH THOROUGHLY AFTER
HANDLING. WHEN NOT IN USE KEEP IN TIGHTLY CLOSED CONTAINER.

INTERNATIONAL LABELING

HARMFUL IF SWALLOWED. IRRITATING TO EYES.
DO NOT BREATHE DUST. AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF
SOAP AND WATER.

SAF-T-DATA* STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

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AMMONIUM CHLORIDE

SECTION II - COMPONENTS

COMPONENT
AMMONIUM CHLORIDE

CAS NO. 12125-02-9
WEIGHT % 99-100
OSHA/PEL 10 MG/M3
ACGIH/TLV 10 MG/M3

SECTION III - PHYSICAL DATA

BOILING POINT: N/A
MELTING POINT: 338 C (640 F)
(AT 760 MM HG)
SPECIFIC GRAVITY: 1.53
(H2O=1)
SOLUBILITY(H2O): APPRECIABLE (>10%)
% VOLATILES BY VOLUME: 0
(21 C)
PH: N/A
ODOR THRESHOLD (P.P.*M.): N/A
COEFFICIENT WATER/OIL DISTRIBUTION: N/A
APPEARANCE & ODOR: WHITE CRYSTALS OR GRANULES. ODORLESS.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP): N/A
NFPA 704M RATING: 1-0-0
AUTOIGNITION TEMPERATURE: N/A
FLAMMABLE LIMITS: UPPER - N/A
LOWER - N/A
FIRE EXTINGUISHING MEDIA
USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES
FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA (CONTINUED)

UNUSUAL FIRE & EXPLOSION HAZARDS
NONE IDENTIFIED.

TOXIC GASES PRODUCED
AMMONIA, HYDROGEN CHLORIDE

EXPLOSION DATA-SENSITIVITY TO MECHANICAL IMPACT
NONE IDENTIFIED.

EXPLOSION DATA-SENSITIVITY TO STATIC DISCHARGE
NONE IDENTIFIED.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (TLV/TWA): 10 MG/M3
SHORT-TERM EXPOSURE LIMIT (STEL): 20 MG/M3
PERMISSIBLE EXPOSURE LIMIT (PEL): 10 MG/M3

TOXICITY OF COMPONENTS

ORAL RAT LD50 FOR AMMONIUM CHLORIDE 1650 MG/KG
INTRAPERITONEAL MOUSE LD50 FOR AMMONIUM CHLORIDE 485 MG/KG
CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO
CARCINOGENICITY NONE IDENTIFIED.

REPRODUCTIVE EFFECTS NONE IDENTIFIED.

EFFECTS OF OVEREXPOSURE

INHALATION: IRRITATION OF UPPER RESPIRATORY TRACT
SKIN CONTACT: IRRITATION, PROLONGED CONTACT MAY CAUSE DERMATITIS
EYE CONTACT: IRRITATION

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

SKIN ABSORPTION: NONE IDENTIFIED

INGESTION: NAUSEA, VOMITING, IRRITATION AND BURNS TO MOUTH AND STOMACH

CHRONIC EFFECTS: NONE IDENTIFIED

TARGET ORGANS
NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
NONE IDENTIFIED

PRIMARY ROUTES OF ENTRY
INHALATION, INGESTION, SKIN CONTACT, EYE CONTACT

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: IF SWALLOWED AND THE PERSON IS CONSCIOUS, IMMEDIATELY GIVE LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION.

INHALATION: IF A PERSON BREATHES IN LARGE AMOUNTS, MOVE THE EXPOSED PERSON TO FRESH AIR.

SKIN CONTACT: IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH PLENTY OF SOAP AND WATER FOR AT LEAST 15 MINUTES.

EYE CONTACT: IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SARA/TITLE III HAZARD CATEGORIES AND LISTS

ACUTE: YES CHRONIC: YES FLAMMABILITY: NO PRESSURE: NO REACTIVITY: NO

EXTREMELY HAZARDOUS SUBSTANCE: NO CERCLA HAZARDOUS SUBSTANCE: YES CONTAINS AMMONIUM CHLORIDE (RQ = 5000 LBS) TOXIC CHEMICALS: NO TSCA INVENTORY: YES

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AMMONIUM CHLORIDE

SECTION VI - REACTIVITY DATA

STABILITY: STABLE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: MOISTURE, HEAT

INCOMPATIBLES: STRONG OXIDIZING AGENTS, STRONG ACIDS, STRONG BASES, MOST COMMON METALS, BROMINE TRIFLUORIDE AND TRICHLORIDE, SILVER AND SILVER COMPOUNDS

DECOMPOSITION PRODUCTS: AMMONIA, HYDROGEN CHLORIDE

SECTION VII - SPILL & DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE
WEAR SUITABLE PROTECTIVE CLOTHING. CAREFULLY SWEEP UP AND REMOVE.

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

SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

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

RESPIRATORY PROTECTION: NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS EXIST. IF AIRBORNE CONCENTRATION EXCEEDS TLV, A DUST/MIST RESPIRATOR IS RECOMMENDED. IF CONCENTRATION EXCEEDS CAPACITY OF RESPIRATOR, A SELF-CONTAINED BREATHING APPARATUS IS ADVISED.

EYE/SKIN PROTECTION: SAFETY GOOGLES, RUBBER GLOVES ARE RECOMMENDED.

SECTION IX - STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA* STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)
SECTION IX - STORAGE AND HANDLING PRECAUTIONS (CONTINUED)

STORAGE REQUIREMENTS
KEEP CONTAINER TIGHTLY CLOSED. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA. ISOLATE FROM INCOMPATIBLE MATERIALS.

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME: AMMONIUM CHLORIDE
HAZARD CLASS: ORM-E
UN/NA: NA9085 REPORTABLE QUANTITY: 5000 LBS.
LABELS: NONE
REGULATORY REFERENCES: 49CFR 172.101; 173.500; 173.510

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)
MARINE POLLUTANTS: NO

AIR (I.C.A.O.)

PROPER SHIPPING NAME: CHEMICALS, N.O.S. (NON-REGULATED)

U.S. CUSTOMS HARMONIZATION NUMBER: 28271000005

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N/A = NOT APPLICABLE OR NOT AVAILABLE
N/E = NOT ESTABLISHED

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET MEETS THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT AND REGULATIONS PROMULGATED THEREUNDER (29 CFR 1910.1200 ET. SEQ.) AND THE CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. THIS DOCUMENT IS INTENDED ONLY TO THE APPROPRIATE PRECAUTIONARY HANDLING OF THE MATERIAL BY A PERSON TRAINED IN, OR SUPERVISED BY A PERSON TRAINED IN, CHEMICAL HANDLING. THE USER IS RESPONSIBLE FOR DETERMINING THE PRECAUTIONS AND DANGERS OF THIS CHEMICAL FOR HIS OR HER PARTICULAR APPLICATION. DEPENDING ON USAGE, PROTECTIVE CLOTHING INCLUDING EYE AND FACE GUARDS AND RESPIRATORS MUST BE USED TO AVOID CONTACT WITH MATERIAL BREATING CHEMICAL VAPORS/FUMES.

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EXPOSURE TO THIS PRODUCT MAY HAVE SERIOUS ADVERSE HEALTH EFFECTS. THIS CHEMICAL MAY INTERACT WITH OTHER SUBSTANCES. SINCE THE POTENTIAL USES ARE SO VARIED, BAKER CANNOT WARN OF ALL OF THE POTENTIAL DANGERS OF USE OR INTERACTION WITH OTHER CHEMICALS OR MATERIALS. BAKER WARRANTS THAT THE CHEMICAL MEETS THE SPECIFICATIONS SET FORTH ON THE LABEL. BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

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