



chemists helping chemists in research & industry

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DATE: 02/05/93
CUST#: 523216
PO#: QD17161

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

IDENTIFICATION

PRODUCT #: 22124-4
CAS #: 6484-52-2 NAME: AMMONIUM NITRATE, A.C.S. REAGENT
MF: H4N2O3

SYNONYMS

AMMONIUM NITRATE * AMMONIUM NITRATE (NO ORGANIC COATING) (UN1942) (DOT) * AMMONIUM NITRATE (ORGANIC COATING) (NA1942) (DOT) * AMMONIUM NITRATE, SOLUTION (CONTAINING 35% OR LESS WATER) (UN2426) (DOT) * AMMONIUM SALTPETER * MERCUR PRILLS * NA 1942 (DOT) * NITRIC ACID, AMMONIUM SALT * UN 1942 (DOT) * UN 2426 (DOT) * VARIOFORM I *

TOXICITY HAZARDS

RTECS #: BR0050000
AMMONIUM(I) NITRATE (1:1)

TOXICITY DATA

ORL-RAT LD50:2217 MG/KG GISAAA 52(8),25,87

REVIEWS, STANDARDS, AND REGULATIONS

NIOSH 1974: HZD 06163; NIS 40; TNF 2648; NOS 42; TNE 22889
NIOSH 1983: HZD 06163; NIS 59; TNF 3715; NOS 55; TNE 57833; TFE 9824
EPA TSCA CHEMICAL INVENTORY, JUNE 1990
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JULY 1992
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

HEALTH HAZARD DATA

ACUTE EFFECTS

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.
CAUSES EYE AND SKIN IRRITATION.
MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.
PROLONGED EXPOSURE CAN CAUSE:
GASTROINTESTINAL DISTURBANCES
BLOOD EFFECTS
TARGET ORGAN(S):
BLOOD
CENTRAL NERVOUS SYSTEM
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

FIRST AID

CONTINUED ON NEXT PAGE

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MATERIAL SAFETY DATA SHEET

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CUST#: 523216
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PRODUCT #:

MF: H4N203

NAME: AMMONIUM NITRATE, A.C.S. REAGENT

HEALTH HAZARD DATA

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. WASH CONTAMINATED CLOTHING BEFORE REUSE.

PHYSICAL DATA

MELTING POINT: 169 C
SPECIFIC GRAVITY: 1.725

APPEARANCE AND ODOR

WHITE CRYSTALS, GRANULES

FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA

WATER SPRAY.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. OXIDIZER. MAY EXPLODE WHEN HEATED.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. EMITS TOXIC FUMES UNDER FIRE CONDITIONS. CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

REACTIVITY DATA

INCOMPATIBILITIES

CONTINUED ON NEXT PAGE

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PRODUCT #:
MF: H4N203

NAME: AMMONIUM NITRATE, A.C.S. REAGENT

REACTIVITY DATA

STRONG REDUCING AGENTS
STRONG ACIDS
FINELY POWDERED METALS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
NITROGEN OXIDES
AMMONIA

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
COVER WITH DRY LIME OR SODA ASH, PICK UP, KEEP IN A CLOSED CONTAINER AND HOLD FOR WASTE DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

WASTE DISPOSAL METHOD

FOR SMALL QUANTITIES: CAUTIOUSLY ADD TO A LARGE STIRRED EXCESS OF WATER. ADJUST THE PH TO NEUTRAL, SEPARATE ANY INSOLUBLE SOLIDS OR LIQUIDS AND PACKAGE THEM FOR HAZARDOUS-WASTE DISPOSAL. FLUSH THE AQUEOUS SOLUTION DOWN THE DRAIN WITH PLENTY OF WATER. THE HYDROLYSIS AND NEUTRALIZATION REACTIONS MAY GENERATE HEAT AND FUMES WHICH CAN BE CONTROLLED BY THE RATE OF ADDITION.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
USE ONLY IN A CHEMICAL FUME HOOD.
SAFETY SHOWER AND EYE BATH.
AVOID BREATHING DUST.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
IRRITANT.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM COMBUSTIBLE MATERIALS, HEAT, SPARKS, AND OPEN FLAME.
STORE IN A COOL DRY PLACE.

LABEL PRECAUTIONARY STATEMENTS

CONTINUED ON NEXT PAGE

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----- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE -----

OXIDIZING

IRRITANT

CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

TARGET ORGAN(S):

BLOOD

CENTRAL NERVOUS SYSTEM

KEEP AWAY FROM COMBUSTIBLE MATERIAL.

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.

WEAR SUITABLE PROTECTIVE CLOTHING.

----- ADDITIONAL PRECAUTIONS AND COMMENTS -----

ADDITIONAL INFORMATION

AMMONIUM NITRATE DECOMPOSES AT ABOUT 210 C. THE PRESENCE OF IMPURITIES
MARKEDLY LOWERS THE DECOMPOSITION TEMPERATURE, E.G. CHLORIDE SALTS,
METAL OXIDES. THE FOLLOWING POWDERED METALS REACT VIOLENTLY OR
EXPLOSIVELY WITH FUSED AMMONIUM NITRATE BELOW 200 C: ALUMINUM,
ANTIMONY, BISMUTH, CADMIUM, CHROMIUM, COBALT, COPPER, IRON, LEAD,
MAGNESIUM, MANGANESE, POTASSIUM, SODIUM, NICKEL, TIN, ZINC, TITANIUM,
AS WELL AS BRASS AND STAINLESS STEEL. IGNITES OR REACTS ON CONTACT
WITH: PHOSPHORUS, UREA, SULFUR, POTASSIUM NITRITE, SAWDUST, SUGAR,
TRINITROANISOLE, CHARCOAL, CYANO GUANIDINE, POTASSIUM PERMANGANATE,
ACETIC ACID, ACETIC ANHYDRIDE. HOT AQUEOUS SOLUTIONS OF AMMONIUM
NITRATE OF ABOVE 50% CONCENTRATION MAY DECOMPOSE EXPLOSIVELY UNDER
ADIABATIC CONDITIONS AND CONFINEMENT.

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO
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