



chemists helping chemists in research & industry

aldrich chemical co.

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DATE: 03/10/87
CUST # 938609 P.O. #

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 # 22862-1 NAME: LEAD(II) NITRATE, 98+%, A.C.S. REAGENT
CAS # 10099-74-8

TOXICITY HAZARDS

RTECS # OG2100000

LEAD(II) NITRATE (1:2)

TOXICITY DATA

UNR-RAT LD50: 3613 MG/KG

GISAAA 50(3), 57, 85

IPR-MUS LD50: 74 MG/KG

BECTA6 9, 80, 73

REVIEWS, STANDARDS, AND REGULATIONS

CARCINOGENIC REVIEW: ANIMAL INDEFINITE IMEMDT 23, 325, 80

OSHA STANDARD-AIR: TWA 0.05 MG(PB)/M3 FEREAC 43, 53007, 78

NIOSH REL TO INORGANIC LEAD-AIR: TWA 0.10 MG(PB)/M3 MMWR** 34(1S), 21S, 85

REPORTED IN EPA TSCA INVENTORY, 1983

MEETS CRITERIA FOR PROPOSED OSHA MEDICAL RECORDS RULE FEREAC 47, 30420, 82

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.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

FIRST AID

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, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

ADDITIONAL INFORMATION

PROLONGED OR REPEATED EXPOSURE TO DUST MAY RESULT IN WEAKNESS, NAUSEA, VOMITTING, ABDOMINAL PAIN, HEADACHE AND A BLUE-GREEN LINE ON THE GUMS. CHRONIC EFFECTS: BLOOD CHANGES, KIDNEY DAMAGE AND CENTRAL NERVOUS SYSTEM DAMAGE. LEAD SALTS HAVE BEEN REPORTED TO CROSS THE PLACENTA AND TO INDUCE EMBRYO- AND FETO- MORTALITY. THEY ALSO HAVE A TERATOGENIC EFFECT IN SOME ANIMAL SPECIES. NO TERATOGENIC EFFECTS HAVE BEEN REPORTED WITH EXPOSURE TO ORGANOMETALLIC LEAD COMPOUNDS. ADVERSE EFFECTS OF LEAD ON HUMAN REPRODUCTION, EMBRYONIC AND FETAL DEVELOPMENT AND POSTNATAL (E.G., MENTAL) DEVELOPMENT HAVE BEEN REPORTED.

PHYSICAL DATA

SPECIFIC GRAVITY: 4.530

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PAGE: 2

CATALOG # 22862-1

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----- FIRE AND EXPLOSION HAZARD DATA -----

EXTINGUISHING MEDIA

WATER SPRAY.

SPECIAL FIRE FIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
STRONG OXIDIZER.

UNUSUAL FIRE AND EXPLOSION HAZARDS

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

----- REACTIVITY DATA -----

INCOMPATIBILITIES

STRONG REDUCING AGENTS
FINELY POWDERED METALS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

NITROGEN OXIDES
LEAD, LEAD OXIDES

----- 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

THE MATERIAL SHOULD BE DISSOLVED IN 1) WATER; 2) ACID SOLUTION OR 3) OXIDIZED TO A WATER-SOLUBLE STATE. PRECIPITATE THE MATERIAL AS THE SULFIDE, ADJUSTING THE PH OF THE SOLUTION TO 7 TO COMPLETE PRECIPITATION. FILTER THE INSOLUBLES AND DISPOSE OF THEM IN A HAZARDOUS-WASTE SITE. DESTROY ANY EXCESS SULFIDE WITH SODIUM HYPOCHLORITE. NEUTRALIZE THE SOLUTION BEFORE FLUSHING DOWN THE DRAIN.

OBSERVE ALL FEDERAL, STATE & LOCAL LAWS.

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

WEAR APPROPRIATE OSHA/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.

HARMFUL DUST.

KEEP TIGHTLY CLOSED.

KEEP AWAY FROM COMBUSTIBLE MATERIALS, HEAT, SPARKS, AND OPEN FLAME.

STORE IN A COOL DRY PLACE.

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

ADDITIONAL INFORMATION

A MIXTURE OF ALUMINUM POWDER, WATER AND METAL NITRATE MAY EXPLODE DUE TO A SELF-ACCELERATING REACTION. MIXTURES OF METAL NITRATES WITH ALKYL ESTERS MAY EXPLODE, OWING TO THE FORMATION OF ALKYL NITRATES. MIXTURES OF A NITRATE WITH PHOSPHOROUS, TIN(2) CHLORIDE OR OTHER REDUCING AGENTS MAY REACT EXPLOSIVELY. MIXTURES OF METAL NITRATES AND PHOSPHINATES EXPLODE ON HEATING. MIXTURES CONTAINING NITRATES, NITRITES, AND ORGANIC MATERIALS ARE POTENTIALLY DANGEROUS, ESPECIALLY IN THE PRESENCE OF ACIDIC MATERIALS AND HEAVY METALS. INCOMPATIBLE WITH: CYANIDES, THIOCYANATES, ISOTHIOCYANATES, HYPOPHOSPHITES.

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PAGE: 3

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RETRACTED FROM 2096