



chemists helping chemists in research & industry

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DATE: 07/21/92
CUST#: 946188
PO#: P0071984

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

IDENTIFICATION

PRODUCT #: 22862-1
CAS #: 10099-74-8
MF: N206PB

NAME: LEAD(II) NITRATE, 99+%, A.C.S. REAGENT

SYNONYMS

LEAD DINITRATE * LEAD NITRATE * LEAD(2+) NITRATE * LEAD(II) NITRATE *
LEAD NITRATE (DOT) * NITRIC ACID, LEAD(2+) SALT * NITRATE DE PLOMB
(FRENCH) * PLUMBOUS NITRATE * UN 1469 (DOT) *

TOXICITY HAZARDS

RTECS NO: OG2100000

LEAD(II) NITRATE (1:2)

TOXICITY DATA

IVN-RAT LD50:93 MG/KG
UNR-RAT LD50:3613 MG/KG
TPR-MUS LD50:74 MG/KG

PSEBAA 92,331,56
GISAAA 50(3),57,85
BECTA6 9,80,73

REGULATIONS, STANDARDS, AND REGULATIONS

ACGIH TLV-TWA 0.15 MG(PB)/M3 85INAB 5,343,86
IARC CANCER REVIEW:ANIMAL INADEQUATE EVIDENCE IMEMDT 23,325,80
NIOSH REL TO LEAD, INORGANIC-AIR:10H TWA 0.10 MG(PB)/M3 MMWR** 37(S-7)
,18,88

NOHS 1974: HZD 84473; NIS 4; TNF 112; NOS 5; TNE 420
NOES 1983: HZD 84473; NIS 18; TNF 450; NOS 20; TNE 11440; TFE 4246
EPA TSCA CHEMICAL INVENTORY, JUNE 1990

TARGET ORGAN DATA

BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
BLOOD (PIGMENTED OR NUCLEATED RBC)
PATERAL EFFECTS (TESTES, EPIDIDYMIS, SPERM DUCT)
MATERNAL EFFECTS (PARTURITION)
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)
EFFECTS ON FERTILITY (OTHER MEASURES OF FERTILITY)
EFFECTS ON EMBRYO OR FETUS (EXTRA EMBRYONIC STRUCTURES)
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)
EFFECTS ON EMBRYO OR FETUS (FETAL DEATH)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CENTRAL NERVOUS SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (BODY WALL)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CARDIOVASCULAR SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (UROGENITAL SYSTEM)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (HOMEOSTASIS)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (OTHER DEVELOPMENTAL
ABNORMALITIES)

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M A T E R I A L S A F E T Y D A T A S H E E T P A G E 2

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----- TOXICITY HAZARDS -----

EFFECTS ON NEWBORN (WEANING OR LACTATION INDEX)
EFFECTS ON NEWBORN (GROWTH STATISTICS)
EFFECTS ON NEWBORN (BEHAVIORAL)
NUTRITIONAL AND GROSS METABOLIC (BODY TEMPERATURE DECREASE)

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.
ABSORPTION INTO THE BODY LEADS TO THE FORMATION OF METHEMOGLOBIN
WHICH IN SUFFICIENT CONCENTRATION CAUSES CYANOSIS. ONSET MAY BE
DELAYED 2 TO 4 HOURS OR LONGER.
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

CHRONIC EFFECTS

MAY CAUSE REPRODUCTIVE DISORDERS.
TARGET ORGAN(S):
BLOOD, KIDNEYS
NERVES
FEMALE REPRODUCTIVE SYSTEM
MALE REPRODUCTIVE SYSTEM

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. 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.

ADDITIONAL INFORMATION

LEAD SALTS HAVE BEEN REPORTED TO CROSS THE PLACENTA AND TO INDUCE
EMBRYO- AND FETO- MORTALITY. THEY ALSO HAVE TERATOGENIC EFFECT IN

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----- HEALTH HAZARD DATA -----

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. EXCESSIVE EXPOSURE CAN AFFECT BLOOD, NERVOUS AND DIGESTIVE SYSTEMS. THE SYNTHESIS OF HEMOGLOBIN IS INHIBITED AND RESULTS IN ANEMIA. IF LEFT UNTREATED, NEUROMUSCULAR DYSFUNCTION, POSSIBLE PARALYSIS AND ENCEPHALOPATHY CAN RESULT. ADDITIONAL SYMPTOMS OF OVEREXPOSURE INCLUDE: JOINT AND MUSCLE PAIN, WEAKNESS OF THE EXTENSOR MUSCLES (FREQUENTLY THE HAND AND WRIST), HEADACHE, DIZZINESS, ABDOMINAL PAIN, DIARRHEA, CONSTIPATION, NAUSEA, VOMITING, BLUE LINE ON THE GUMS, INSOMNIA AND METALLIC TASTE. HIGH BODY LEVELS PRODUCE INCREASED CEREBROSPINAL PRESSURE, BRAIN DAMAGE, STUPOR LEADING TO COMA AND OFTEN DEATH.

----- PHYSICAL DATA -----

SPECIFIC GRAVITY: 4.530
APPEARANCE AND ODOR
WHITE CRYSTALLINE POWDER

----- 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.
STRONG OXIDIZER.

UNUSUAL FIRE AND EXPLOSIONS 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

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REACTIVITY DATA

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.

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.

HARMFUL DUST.

REPRODUCTIVE HAZARD.

KEEP TIGHTLY CLOSED.

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

STORE IN A COOL DRY PLACE.

LABEL PRECAUTIONARY STATEMENTS

OXIDIZING

HARMFUL

CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.

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

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
DANGER OF CUMULATIVE EFFECTS.

REPRODUCTIVE HAZARD.

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.

REGULATORY INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

----- 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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