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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

SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

CATALOG #: 402982
NAME: LEAD(II) OXIDE, 99+%, A.C.S. REAGENT

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #: 1317-36-8
MF: OPB
EC NO: 215-267-0

SYNONYMS

C.I. 77577 * C.I. PIGMENT YELLOW 46 * LEAD MONOOXIDE * LEAD OXIDE *
LEAD OXIDE YELLOW * LEAD PROTOXIDE * LEAD(II) OXIDE * LITHARGE *
LITHARGE PURE * LITHARGE YELLOW L-28 * PLUMBOUS OXIDE * YELLOW LEAD
OCHER *

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

LABEL PRECAUTIONARY STATEMENTS

TOXIC
MAY IMPAIR FERTILITY.
POSSIBLE RISK OF HARM TO THE UNBORN CHILD.
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
POSSIBLE MUTAGEN.
TARGET ORGAN(S):
BLOOD, KIDNEYS
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.
DO NOT BREATHE DUST.

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

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 SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA
NONCOMBUSTIBLE.
USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.
AVOID RAISING DUST.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

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 INHALATION.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
WASH CONTAMINATED CLOTHING BEFORE REUSE.
IRRITATING DUST.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

PHYSICAL PROPERTIES

MELTING POINT: 886 C
VAPOR PRESSURE: 10 MMHG
SPECIFIC GRAVITY: 9.53

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

INCOMPATIBILITIES

REACTS VIOLENTLY WITH:
HYDROGEN PEROXIDE
STRONG OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

LEAD SALTS HAVE BEEN REPORTED TO CROSS THE PLACENTA AND TO INDUCE EMBRYO- AND FETO- MORTALITY. THEY ALSO HAVE 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. 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.
MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.
HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
CAUSES EYE AND SKIN IRRITATION.

CHRONIC EFFECTS

OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDER(S) BASED ON TESTS WITH LABORATORY ANIMALS.
TARGET ORGAN(S):
BLOOD, KIDNEYS
NERVES
FEMALE REPRODUCTIVE SYSTEM
MALE REPRODUCTIVE SYSTEM

RTECS #: OG1750000

LEAD MONOXIDE

IRRITATION DATA

SKN-RBT 100 MG/24H MLD AEHLAU 30,168,1975

TARGET ORGAN DATA

BLOOD (OTHER CHANGES)
PATERNAL EFFECTS (SPERMATOGENESIS)
PATERNAL EFFECTS (TESTES, EPIDIDYMIS, SPERM DUCT)
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -

BURY IN A LANDFILL SITE APPROVED FOR THE DISPOSAL OF CHEMICAL AND HAZARDOUS WASTES.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

EUROPEAN INFORMATION

EC INDEX NO: 082-001-00-6

TOXIC

R 60

MAY IMPAIR FERTILITY.

R 63

POSSIBLE RISK OF HARM TO THE UNBORN CHILD.

R 20/21/22

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

R 36/37/38

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

S 45

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

S 26

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

S 36/37/39

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

S 22

DO NOT BREATHE DUST.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-TWA 0.05 MG(PB)/M3; ANIMAL CARCINOGEN DTLVS* TLV/BEI,1999

IARC CANCER REVIEW:ANIMAL INADEQUATE EVIDENCE IMEMDT 23,325,1980

OEL-ARAB REPUBLIC OF EGYPT: TWA 0.05 MG(PB)/M3, JAN1993

OEL-AUSTRALIA: TWA 0.15 MG(PB)/M3, JAN1993

OEL-AUSTRIA: MAK 0.1 MG(PB)/M3, JAN1993

OEL-DENMARK: TWA 0.1 MG(PB)/M3, JAN1999

OEL-FINLAND: TWA 0.1 MG(PB)/M3, JAN1999

OEL-FRANCE: VME 0.15 MG(PB)/M3, JAN1999

OEL-GERMANY: MAK 0.1 MG(PB)/M3, JAN1999

OEL-HUNGARY: STEL 0.04 MG(PB)/M3, CARCINOGEN, JAN1993

OEL-JAPAN: OEL 0.1 MG(PB)/M3, JAN1999

OEL-THE NETHERLANDS: MAC-TGG 0.1 MG(PB)/M3,

OEL-NORWAY: TWA 0.05 MG(PB)/M3, JAN1999

OEL-THE PHILIPPINES: TWA 0.15 MG(PB)/M3, JAN1993

OEL-POLAND: MAC(TWA) 0.05 MG(PB)/M3, JAN1999

OEL-RUSSIA: STEL 0.005 PPM (0.01 MG(PB)/M3), JAN1993

OEL-SWEDEN: NGV 0.05 MG(PB)/M3 (RESP. DUST), JAN1999

OEL-SWEDEN: NGV 0.1 MG(PB)/M3 (TOTAL DUST), JAN1999

OEL-SWITZERLAND: MAK-W 0.1 MG(PB)/M3, JAN1999

OEL-THAILAND: TWA 0.2 MG(PB)/M3, JAN1993

OEL-TURKEY: TWA 0.2 MG(PB)/M3, JAN1993

OEL-UNITED KINGDOM: LTEL 0.15 MG(PB)/M3, JAN1993

OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO LEAD, INORGANIC-AIR:10H TWA <0.1 MG(PB)/M3

NIOSH* DHHS #92-100,1992

NOHS 1974: HZD M0125; NIS 35; TNF 1613; NOS 37; TNE 23488

NOES 1983: HZD M0125; NIS 40; TNF 2531; NOS 47; TNE 59832; TFE 19722

EPA GENETOX PROGRAM 1988, POSITIVE: CELL TRANSFORM.-SA7/SHE

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

NIOSH ANALYTICAL METHOD, 1994: LEAD, BY FLAME AAS, 7082; OR BY HGAAS, 7105

U.S. INFORMATION

THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

SECTION 16. - - - - - OTHER INFORMATION - - - - -

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH, FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

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