

**EMERGENCY NUMBERS:**

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(CAN) CANUTEC : 1(613) 996-6666 (24hrs)

(USA) Anachemia : 1(518) 297-4444

(CAN) Anachemia : 1(514) 489-5711

WHMIS	Protective Clothing	TDG Road/Rail
WHMIS CLASS: D-1B D-2A		CLASE TDG: 6.1 PIN: UN2291 PG: III
 	   	

## Section I. Product Identification and Uses

<b>Product name</b>	<b>LEAD MONOXIDE</b>	<b>CI#</b>	Not available.
<b>Chemical formula</b>	PbO	<b>CAS#</b>	1317-36-8
<b>Synonyms</b>	C.I. 77577, C.I. Pigment yellow 46, Lead (II) oxide, Lead monoxide, Lead protoxide, Litharge, Plumbous oxide, AC-5398, AC-5399, AC-5399T, MR-111, MR-112, MR-112A, MRGF 111, 51152, 51164, 029-930-01, 029-930-03, 029-930-05, 029-930-06, 029-930-05, 029-930-07, 029-930-08, 029-930-09, 029-930-10, 029-930-11, 029-930-12, 029-930-16, 029-930-17, 029-930-21	<b>Code</b>	AC-5398
<b>Supplier</b>	Anachemia Canada. 255 Norman. Lachine (Montreal), Que H8R 1A3	<b>Formula weight</b>	223.21
		<b>Supersedes</b>	
<b>Material uses</b>	For laboratory use only.		

## Section II. Ingredients

Name	CAS #	%	TLV
1) LEAD OXIDE, MONO	1317-36-8	99-100	Exposure limits: ACGIH (Lead, elemental and inorganic compounds (as Pb)) TWA 0.05 mg(Pb)/m <sup>3</sup>

**Toxicity values of the hazardous ingredients**

 LEAD OXIDE, MONO:  
 INTRAPERITONEAL (LD50): Acute: 217 mg/kg (Mouse).

**Section III. Physical Data**

<b>Physical state and appearance / Odor</b>	Orange powder or crystals, odorless.
<b>pH (1% soln/water)</b>	Not applicable.
<b>Odor threshold</b>	Not applicable.
<b>Percent volatile</b>	Not applicable.
<b>Freezing point</b>	886°C
<b>Boiling point</b>	Not applicable.
<b>Specific gravity</b>	9.4-10 (Water = 1)
<b>Vapor density</b>	Not applicable.
<b>Vapor pressure</b>	0 mm of Hg (@ 20°C)
<b>Water/oil dist. coeff.</b>	Not available.
<b>Evaporation rate</b>	Not applicable.
<b>Solubility</b>	Insoluble in cold water.

**Section IV. Fire and Explosion Data**

<b>Flash point</b>	Not available.
<b>Flammable limits</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Fire degradation products</b>	Toxic fumes of lead and lead oxide.
<b>Fire extinguishing procedures</b>	Use water spray or fog. Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. Cool containing vessels with flooding quantities of water until well after fire is out. Move containing vessels from fire if without risk.
<b>Fire and Explosion Hazards</b>	The sensitivity to impact is not applicable. The sensitivity to static discharge is not applicable. Emits toxic fumes under fire conditions.

**Section V. Toxicological Properties**

<b>Routes of entry</b>	Inhalation and ingestion. Eye contact. Skin contact. Skin absorption.
<b>Effects of Acute Exposure</b>	May be fatal by ingestion, inhalation or skin absorption. Neurotoxin. May impair the reproductive systems of both men and women. Damage may also be caused to the unborn fetus. Lead is a cumulative poison and even exposures to small amounts can raise the body's content to toxic levels. Target organs: blood, central nervous system, liver, kidneys, gastrointestinal system, male and female reproductive system, peripheral nervous system, skeletal muscle, brain, thyroid, testis.
<b>Eye</b>	Causes irritation.
<b>Skin</b>	Causes skin irritation. Symptoms of lead poisoning (see ingestion) may occur. May be absorbed through the skin. IRRITATION: SKIN-RABBIT 100 mg/24H MILD.
<b>Inhalation</b>	Material is irritating to mucous membranes and upper respiratory tract. Local irritation of the bronchia and lungs can occur. Prolonged exposure or repeated exposure can lead to lead poisoning and death (see ingestion).
<b>Ingestion</b>	Poison! Lead salts may cause fatigue, disturbance of sleep, abdominal pain, nausea, headache, anorexia, metallic taste in mouth, muscle and joint pain, dizziness, colic, paralysis, hypertension, thirst, vomiting, constipation or diarrhea, muscle weakness, irritability, encephalopathy, parasthesia, convulsions, coma and death. Prolonged overexposure can severely damage red blood cell formation, central and peripheral nervous system, lung, liver and kidney damage with oliguria, hematuria, albuminuria, hemoglobinuria, See chronic overexposure. Estimated lethal dose is 0.5 g lead.

## Section V. Toxicological Properties

**Effects of Chronic Overexposure** Symptoms of chronic exposure are like those for ingestion. Lead is a cumulative poison and even exposure to small amounts can raise the body's content to toxic levels. Tiredness, loss of weight, insomnia, blue line on gums, gastrointestinal disorder (constipation and colic), muscle weakness, hypertension with bradycardia, polyneuropathy, nephropathy, anemia, nephritis, encephalopathy, eye, lung, central nervous system, liver, kidney, blood, thyroid damage. Reproductive toxin, teratogen and carcinogen. Lead compounds may cause testicular damage, sterility, sperm abnormalities, menstrual disorders, adverse effects on general reproductive performance in human. Passes through the placental barrier (can cause birth defects, postnatal development injury, increased foetal lethality and delayed foetal development.). Medical conditions which may be aggravated: Individuals with preexisting nerve or circulatory disorders or with skin or eye problems may be more susceptible to the effects of this product. To the best of our knowledge, the chemical, physical, and toxicity of this substance has not been fully investigated.

## Section VI. First Aid Measures

**Eye contact** Immediately flush eyes with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Seek immediate medical attention.

**Skin contact** Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash contaminated clothing before reusing.

**Inhalation** Remove patient to fresh air. Administer approved oxygen supply if breathing is difficult. Administer artificial respiration or CPR if breathing has ceased. Get immediate medical attention.

**Ingestion** If conscious, wash out mouth with water. Have conscious person drink several glasses of water to dilute. Induce vomiting. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

## Section VII. Reactivity Data

**Stability** Stable. Conditions to avoid: High temperatures, sparks, open flames and all other sources of ignition, contamination.

**Hazardous decomp. products** Not available.

**Incompatibility** May react violently with acids, chlorinated rubber, halogens, dichloromethylsilane, hydrogen trisulfide, linseed oil, metal acetylides, non metals (boron, silicon, etc.), metals (aluminum, zinc, sodium, titanium, zirconium, etc...), seleninyl chloride, carbides, oxidizing agents, glycerol, silver oxide, peroxyformic acid, hydrogen peroxide, ethylene, sulfides, lithium carbide, aluminum carbide, fluoroelastomers, reducing agents, combustible materials, perchloric acid, sulfur trioxide, ammonium nitrate.

**Reaction Products** Not available. Hazardous polymerization will not occur.

## Section VIII. Preventive Measures

LEAD MONOXIDE

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**Protective Clothing in case of spill and leak** Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.

**Spill and leak** Evacuate the area. Sweep up and place in container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pick up is complete. DO NOT empty into drains. DO NOT touch spilled material.

**Waste disposal** According to all applicable regulations. May be harmful to aquatic life. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

**Storage and Handling** Store in a cool place away from heated areas, sparks, and flame. Store in a well ventilated area. Store away from incompatible materials. Do not add any other material to the container. Do not wash down the drain. Do not breathe dust. Keep container tightly closed and dry. Manipulate under an adequate fume hood. Avoid raising dust. Empty containers may contain a hazardous residue. Handle and open container with care. Minimize dust generation and exposure - use dust mask or appropriate protection. Take off immediately all contaminated clothing. This product must be manipulated by qualified personnel. Do not get in eyes, on skin, or on clothing. Wash well after use. In accordance with good storage and handling practices. Do not allow smoking and food consumption while handling. Wash thoroughly after handling. Wear clean work-clothing daily. After handling, always wash hands thoroughly with soap and water. In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible.).

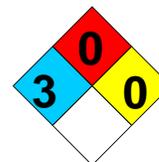
## Section IX. Protective Measures

**Protective clothing** Splash goggles. Impervious gloves, apron, coveralls, and/or other resistant protective clothing. Sufficient to protect skin. Wear appropriate MSHA/NIOSH approved chemical cartridge respirator. If more than TLV, do not breathe vapor. Wear self-contained breathing apparatus. Do not wear contact lenses. Make eye bath and emergency shower available. Ensure that eyewash station and safety shower is proximal to the work-station location.

**Engineering controls** Use in a chemical fume hood to keep airborne levels below recommended exposure limits. Do not use in unventilated spaces.

## Section X. Other Information

**Special Precautions or comments** Toxic! Carcinogen! Teratogen! Embryotoxic and/or foetotoxic! Reproductive toxin! Irritant! Possible risks of irreversible effects. Danger of cumulative effects. Do not breathe dust. Avoid all contact with the product. Avoid prolonged or repeated exposure. Use in a chemical fume hood. Handle and open container with care. Container should be opened only by a technically qualified person. Danger of serious damage to health by prolonged exposure to lead dust; May affect blood, kidney, liver, heart, nervous, digestive and reproductive systems.  
RTECS NO: OG1750000 (Lead monoxide).



NFPA

Prepared by MSDS Department/Département de F.S..

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Telephone # 514) 489-5711

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