Mallinckrodt®

LEAD ACETATE

Material Safety Data Sheet

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Emergency Telephone Number
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Effective Date: 08-20-85

PRODUCT IDENTIFICATION:

Synonyms: Lead acetate (II) trihydrate; acetic acid lead (II) salt, trihydrate

Formula CAS No.: 6080-56-4
TSCA CAS No.: 301-04-2

Molecular Weight: 379.33

Hazardous Ingredients:
None.

Chemical Formula: $Pb(C_2H_3O_2)\ 3H_2O$

PRECAUTIONARY MEASURES

DANGER! MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. NEUROTOXIN. POSSIBLE CANCER HAZARD BASED ON TESTS WITH LABORATORY ANIMALS. EXPOSURE MAY CREATE A CANCER RISK.

Avoid breathing dust.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

EMERGENCY/FIRST AID

In all cases call a physician.
If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. SEE SECTION 5.

DOT Hazard Class: ORM-E

This substance is OSHA Regulated.
See section 6.

Physical Data — SECTION 1

Appearance:
White crystalline granules.

Odor:
Slightly acetic.

Solubility: 60 gm in 100 gm water.

Boiling Point: Decomposes ca 100°C (212°F)

Melting Point: 75°C (167°F)

Specific Gravity: 2.55

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

Fire and Explosion Information — SECTION 2

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Lead acetate can produce acetic acid, carbon monoxide, and toxic fumes of lead oxide in fire situations.

Reactivity Data — SECTION 3

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Toxic fumes of lead or lead oxide and carbon monoxide may be released when heated to decomposition.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: Bromates, Phenol chloral hydrate, sulfides, and acids.

Leak/Spill Disposal Information — SECTION 4

Evacuate unprotected personnel. Clean-up personnel should wear protective clothing and approved respirators for protection from dust. Carefully sweep or vacuum up the spill, avoiding the formation of air-borne particles, and place in a closed container for disposal. Damp or wet cleaning maybe useful in suppressing dust and for the removal of the last traces of spilled material. Recommendations for chemically treating the collected spill are given below. Do not send lead residues to the sewer. Whatever cannot be saved for reclamation may be sent to an RCRC-approved disposal facility.
If the lead must be made insoluble before disposal, dissolve the residue in water, neutralize if necessary and precipitate the lead as sulfide. Filter and package for discarding. Excess sulfide in the filtrate may be destroyed with hypo-chlorite, and the final solution sent to a waste disposal facility or sewer if local ordinances allow.

Reportable Quantity (RQ)(CWA/CERCLA) : 5000 lbs.

Ensure compliance with local, state and federal regulations.

Lead Acetate

Health Hazard Information — SECTION 5

A. Exposure/Health Effects

Inhalation: Lead can be absorbed through the respiratory system. Local irritation of bronchia and lungs can occur and, in cases of acute exposure, symptoms such as metallic taste, chest and abdominal pain, and increased lead blood levels may follow. See also Ingestion.

Ingestion: POISON! The symptoms of lead poisoning include abdominal pain and spasms, nausea, vomiting, headache. Acute poisoning can lead to muscle weakness, "lead line" on the gums, metallic taste, definite loss of appetite, insomnia, dizziness, high lead levels in blood and urine with shock, coma and death in extreme cases. Soluble lead compounds, e.g., the acetate or nitrate, are the most dangerous.

Skin Contact: Lead and lead compounds may be absorbed through the skin on prolonged exposure; the symptoms of lead poisoning described for ingestion exposure may occur. Contact over short periods may cause severe local irritation or burns.

Eye Contact: Absorption can occur through eye tissues but the more common hazards are local irritation or abrasion.

Chronic Exposure: Lead is a cumulative poison and exposure even to small amounts can raise the body's content to toxic levels. The symptoms of chronic exposure are like those of ingestion poisoning; restlessness and irritability may also be noted.

Aggravation of Pre-existing Conditions: Persons with pre-existing nerve or circulatory disorders or with skin or eye problems may be more susceptible to the effects of this substance.

B. FIRST AID

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. CALL A PHYSICIAN IMMEDIATELY. Never give anything by mouth to an unconscious person.

Skin Exposure: Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY DATA (RTECS, 1982)

No LD50/LC50 information found relating to normal routes of occupational exposure.
Mutation references cited. Tumorigenic effects cited.
Carcinogenic determination:
Lead acetate trihydrate: animal positive (IARC, 1,40,72)
Lead acetate: Listed as a carcinogen by The National Toxicology Program (NTP)
Lead and other smelter emissions are human reproductive hazards. (Chemical Council on Enviromental Quality; Chemical Hazards to Human Reproduction, 1981)

Occupational Control Measures — SECTION 6

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL):
0.05 mg(Pb)/m^3 (TWA)

-ACGIH Threshold Limit Value (TLV):
0.15 mg(Pb)/m^3 (TWA); 0.45 mg(Pb)/m^3 (STEL)

Ventilation System: A system of local exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the dust or vapor at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Pesonal Respirators (NIOSH Approved): If the PEL is exceeded, a half-mask air-purifying respirator equipped with a high-efficiency filter, or any half-mask supplied air respirator may be worn up to concetrations of 50 mg per cubic meter (1000X PEL). See OSHA Standard for additional information.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material.

Maintain eye wash fountain and quick-drench facilities in work area. Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing soluble lead compounds are handled, processed, or stored.

See OSHA Standard for more information on personal protective equipment, engineering and work practice controls, medical surveillance, record keeping, and reporting requirements. (29 CFR 1910.1025)

Storage and Special Information — SECTION 7

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Areas in which exposure to lead metal or lead compounds may occur should be identified by signs or appropriate means, and access to the area should be limited to authorized persons.