

MSDS# 12510

Section 1 - Chemical Product and Company Identification

MSDS Name: Lead
Catalog Numbers: S71957, S719571, S75257, S80049, L18-500, L246-500, L27-1LB, L27-1RL
Synonyms: Lead metal.

Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 7439-92-1
Chemical Name: Lead
%: 99.8
EINECS#: 231-100-4

Hazard Symbols:



Risk Phrases:

T N



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Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! May cause central nervous system depression. May be absorbed through intact skin. May cause kidney damage. May cause adverse reproductive effects. Causes eye and skin irritation. May cause fetal effects. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible cancer hazard. May cause cancer based on animal data. Target Organs: Kidneys, central nervous system, blood forming organs.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be absorbed through the skin.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion of lead compounds can cause toxic effects in the blood-forming organs, kidneys and central nervous system. Symptoms of lead poisoning or plumbism include weakness, weight loss, lassitude, insomnia, and hypotension. It also includes constipation, anorexia, abdominal discomfort and colic.

Inhalation: May cause respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May cause effects similar to those described for ingestion.

Chronic: Possible cancer hazard based on tests with laboratory animals. Chronic exposure may cause reproductive disorders and teratogenic effects. Chronic exposure to lead may result in plumbism which is characterized by lead line in gum, headache, muscle weakness, mental changes.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get

medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.

Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Antidote: The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel. The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel. The use of Calcium disodium EDTA as a chelating agent should be determined by qualified medical personnel.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible. Dust can be an explosion hazard when exposed to heat or flame.

Extinguishing Media: For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature: Not available.

Flash Point: Not available

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wash clothing before reuse.

Storage: Store in a cool, dry place. Keep from contact with oxidizing materials. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lead	0.05 mg/m3	0.050 mg/m3 TWA 100 mg/m3 IDLH	50 æg/m3 TWA; 50 æg/m3 TWA (as Pb); 30 æg/m3 Action Level (as Pb, Poison - see 29 CFR 1910.102 5)

OSHA Vacated PELs: Lead: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure

limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: bluish white, silvery gray

Odor: none reported

pH: Not applicable

Vapor Pressure: 1.3 mm Hg @ 970C

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: 1740 deg C (3,164.00°F)

Freezing/Melting Point: 327.4 deg C (621.32°F)

Decomposition Temperature: Not available

Solubility in water: Insoluble in water.

Specific Gravity/Density: 11.3

Molecular Formula: Pb

Molecular Weight: 207.2

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation, excess heat.

Incompatibilities with Other Materials: Not available

Hazardous Decomposition Products: Lead/lead oxides.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7439-92-1: OF7525000

LD50/LC50: RTECS: Not available.

Carcinogenicity: Lead - ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans California: carcinogen, initial date 10/1/92 NTP: Suspect carcinogen IARC: Group 2B carcinogen

Epidemiology: Not available

Teratogenicity: Not available

Reproductive: Not available

Neurotoxicity: Not available

Mutagenicity: Mutagenic effects have occurred in humans.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Not available

For more information, see "HANDBOOK OF ENVIRONMENTAL FATE AND EXPOSURE DATA."

LC50 Japanese quail (*Coturnix japonica*), males or females, 14 days old, oral (5-day ad libitum in diet) >5,000 ppm;

Other: at 1000, 2236 & 5000 onset of toxic signs began at 7, 7 & 7 days and remitted at 11, 11 & 12 days, respectively, no mortality was observed; control references were dieldrin & dicrotophos; corn oil diluent was added to diet at ratio of 2:98 by wt; (extreme concentrations: 1,000-5,000 ppm) /Lead metal, 100%.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 7439-92-1: 10 lb final RQ (no reporting of releases of this hazardous substance)

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7439-92-1 is listed on the TSCA Inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 7439-92-1: 10 lb final RQ (no reporting of releases of this hazardous substance is required)

SARA Section 302

Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 7439-92-1: acute, chronic.

Section 313

This material contains Lead (CAS# 7439-92-1, 99.8%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. CAS# 7439-92-1 is listed as a Priority Pollutant under the Clean Water Act. CAS# 7439-92-1 is listed as a Toxic Pollutant under the Clean Water Act.

OSHA:

STATE

Lead can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act: WARNING: This product contains Lead, a chemical known to the state of California to cause cancer. WARNING: This product contains Lead, a chemical known to the state of California to cause birth defects or other reproductive harm.

California No Significant Risk Level:

CAS# 7439-92-1: 15 µg/day NSRL (oral)

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

R 61 May cause harm to the unborn child.

R 20/22 Harmful by inhalation and if swallowed.

R 33 Danger of cumulative effects.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 62 Possible risk of impaired fertility.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 7439-92-1: Not available

Canada

CAS# 7439-92-1 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2A

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7439-92-1 is listed on Canada's Ingredient Disclosure List

Section 16 - Other Information

MSDS Creation Date: 4/29/1999

Revision #5 Date 5/22/2007

Revisions were made in Sections: 2, 3

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