

Material Safety Data Sheet

Lead Stearate

Section 1 - Chemical Product and Company Identification

Synonyms : Stearic acid, lead salt; Octadecanoic acid, lead salt; Lead(II) n-octadecanoate;
Lead (II) stearate;

Molecular Weight : 774.152 g/mol

Chemical Formula : $Pb(C_{18}H_{35}O_2)_2$

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Section 2 - Composition and Information on Ingredients

Composition:

| Chemical Name | CAS No |
|--------------------|-----------|
| Lead (II) Stearate | 1072-35-1 |

Section 3 – Hazards Identification

3.1 Classification of the substance according to GHS

Respiratory sensitization (Category 1)

H360: May damage fertility or the unborn child.

Acute toxicity (Category 4)

H302: Harmful if swallowed.

H332: Harmful if inhaled.

Specific target organ toxicity – repeat exposure (Category 2)

H373 May cause damage to the reproductive system, the blood, the brain and the endocrine system through prolonged or repeated exposure. Route of exposure: Oral, Inhalative.

3.2. GHS Label elements, including precautionary statements



Warning
GHS07: Harmful



GHS08: Health Hazard

Precautionary statements

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P281: Use personal protective equipment as required.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

3.3. Other hazards which do not result in classification

Not applicable.

Section 4 – First-Aid Measures

4.1. Description of first aid measures

Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing

Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5 – Fire Fighting Measures

5.1. Suitable Extinguishing media

Use carbon dioxide, extinguishing powder or foam. Water may be ineffective but may be used for cooling exposed containers.

5.2. Specific hazards arising from the chemical

Carbon oxides, lead oxide fume.

5.3. Special protective actions for fire-fighters

Wear a self-contained breathing apparatus for firefighting and fully protective impervious suit.

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

6.2. Environmental precautions

Do not allow material to be released to the environment without proper government permits.

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

6.4. Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7 – Handling and Storage

7.1. Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Open and handle container with care.

7.2. Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

7.3. Specific end use(s)

No further relevant information available.

Section 8 – Exposure Controls/Personal Protection

8.1. Control parameters

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with workplace control parameters

Lead, elemental, and inorganic compounds (as Pb)

mg(Pb)/m³

| | |
|--------------------|---------------------------------------|
| ACGIH TLV | 0.05; Confirmed animal carcinogen |
| Austria MAK | 0.1 |
| Belgium TWA | 0.15 |
| Denmark TWA | 0.1 |
| Germany MAK | 0.1 |
| Japan OEL | 0.1 |
| Korea TLV | 0.05; Confirmed animal carcinogen |
| Netherlands TWA | 0.15 |
| Norway TWA | 0.05 |
| Poland TWA | 0.05 |
| Sweden TWA | 0.05 (resp. dust) 0.1 (total dust) |
| Switzerland MAK-W | 0.1 |
| United Kingdom TWA | 0.1 |
| USA PEL | 0.05 |

Lead (II) stearate (100%)

PEL (USA)

Long-term value: 0.05 mg/m³ as Pb; See 29 CFR 1910.1025

EV (Canada)

Long-term value: 0.05 mg/m³ as Pb, Skin (organic compounds)

8.2. Appropriate engineering controls

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Maintain an ergonomically appropriate working environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Body Protection

Protective work clothing.

Respiratory protection

Use suitable respirator when high concentrations are present.

Refer to 29CFR1910.1025 for regulations on respiratory protection required during exposure to lead and lead compounds.

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance : Form: White Powder

Odour : Odourless.

Odour threshold : N.A.

pH @ 20°C : N.A.

Melting point : 115.7°C

Boiling point : N.A.

Flash point : N.A.

Evaporation rate : N.A.

Flammability : N.A.

Upper/lower flammability or explosive limits : N.A.

Vapour pressure : N.A.

Vapour density : N.A.

Relative density : 1.4 g/cm³ at 20°C

Solubility in water : Slightly soluble.

Partition coefficient: n-octanol/water : N.A

Auto-ignition temperature : N.A.

Decomposition temperature : N.A.

Viscosity : N.A.

9.2. Other information

N.A.

Section 10 – Stability and Reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid:

Decomposition will not occur if used and stored according to specifications.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Section 11 – Toxicological Information

Information on toxicological effects

Acute toxicity:

Harmful if inhaled.

Harmful if swallowed.

LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: Irritant to skin and mucous membranes.

Eye irritation or corrosion: Irritating effect.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

Carcinogenicity:

EPA-B2: Probable human carcinogen, sufficient evidence from animal studies; inadequate evidence or no data from epidemiologic studies.

IARC-2B: Possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals.

NTP-R: Reasonably anticipated to be a carcinogen: limited evidence from studies in humans or sufficient evidence from studies in experimental animals.

ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) not considered relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans.

Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

Reproductive toxicity: May damage fertility or the unborn child.

Specific target organ system toxicity - repeated exposure: May cause damage to the reproductive system, the blood, the brain and the endocrine system through prolonged or repeated exposure. Route of exposure: Oral, Inhalative.

Specific target organ system toxicity - single exposure: No effects known.

Aspiration hazard: No effects known.

Subacute to chronic toxicity: Lead and lead compounds may cause abdominal pain, diarrhea, loss of appetite, metallic taste, nausea, vomiting, lassitude, insomnia, muscle weakness, joint and muscle pain, irritability, headache and dizziness. Red blood cells may be damaged resulting in anemia. Gastritis and injury to the kidneys, liver, male gonads, and central nervous system may also occur.

Subacute to chronic toxicity: No effects known.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Section 12 – Ecological Information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Ecotoxicological effects: Remark: Very toxic for aquatic organisms

Additional ecological information:

General notes:

Do not allow material to be released to the environment without proper governmental permits.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

May cause long lasting harmful effects to aquatic life.

Avoid transfer into the environment.

Very toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects

No further relevant information available.

Section 13 – Disposal Considerations

13.1. Waste treatment methods

Recommendation: Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Section 14 – Transport Information

14.1. UN number : UN3467

14.2. UN proper shipping name : Organometallic compound, solid, toxic, n.o.s. (lead (II) stearate)

14.3. Transport of hazard classes : 6.1 Toxic substances

14.4. Packing group : III

14.5. Environmental Hazards: Environmentally hazardous substance, solid

14.6. Incompatible materials: -

14.7. Emergency Response Guide Number : -

Section 15 – Regulatory Information

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

1072-35-1 Lead (II) stearate

California Proposition 65

Prop 65 - Chemicals known to cause cancer

1072-35-1 Lead (II) stearate

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

This product contains lead and is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

Other regulations, limitations and prohibitive regulations

Refer to 29CFR1910.1025 for regulations concerning lead and lead compounds.

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

Section 16 : Additional Information

References: Not available.

Other Special Considerations: Not available.

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