

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/14/2004

Reviewed on 06/02/2004

- **1 Identification of substance:**

- **Product details:**

- **Product name:** Lead (II) 2-ethylhexanoate

- **Stock number:** 36711

- **Manufacturer/Supplier:**

Alfa Aesar, A Johnson Matthey Company
Johnson Matthey Catalog Company, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Emergency Phone: (978) 521-6300
CHEMTREC: (800) 424-9300
Web Site: www.alfa.com

- **Information Department:** Health, Safety and Environmental Department

- **Emergency information:**

During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

- **2 Composition/Data on components:**

- **Chemical characterization:**

Description: (CAS#)

Lead (II) 2-ethylhexanoate (CAS# 301-08-6), 100%

- **Identification number(s):**

- **EU Number:** 082-001-00-6

- **3 Hazards identification**

- **Hazard description:**

T Toxic

N Dangerous for the environment

- **Information pertaining to particular dangers for man and environment**

R 61 May cause harm to the unborn child

R 62 Possible risk of impaired fertility

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

- **Classification system**

- **HMIS ratings (scale 0-4)**

(Hazardous Materials Identification System)

Health (acute effects) = 2

Flammability = 1

Reactivity = 1

- **4 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 immediate medical advice.

- **5 Fire fighting measures**

- **Suitable extinguishing agents**

CO₂, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents**

Water

- **Special hazards caused by the material, its products of combustion or**

- **resulting gases:**

- In case of fire, the following can be released:

- Carbon monoxide (CO)

- Lead oxide fume

- **Protective equipment:**

Wear self-contained respirator.
Wear fully protective impervious suit.

- **6 Accidental release measures**

- **Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

- **Measures for environmental protection:**

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

- **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

- **Additional information:**

See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

- **7 Handling and storage**

- **Handling**

- **Information 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.

- **Information about protection against explosions and fires:**

No special measures required.

- **Storage**

- **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.
Store under lock and key and with access restricted to technical experts or their assistants only.

- **8 Exposure controls and personal protection**

- **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 limit values that require monitoring at the workplace:

Lead, elemental, and inorganic compounds (as Pb)	mg(Pb)/m ³
ACGIH TLV carcinogen	0.05; Confirmed animal
Austria MAK	0.1
Belgium TWA	0.15
Denmark TWA	0.1
Germany MAK	0.1
Japan OEL	0.1
Korea TLV carcinogen	0.05; Confirmed animal
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

- **Additional information:** No data
- **Personal protective equipment**
- **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.

- **Breathing equipment:**

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.

- **Protection of hands:** Impervious gloves

- **Eye protection:** Safety glasses

- **Body protection:** Protective work clothing.

- **9 Physical and chemical properties:**

- **General Information**

- **Form:**

Viscous
Liquid

- **Odor:** Not determined

- | <u>Method</u> | <u>Value/Range</u> | <u>Unit</u> |
|---------------|--------------------|-------------|
|---------------|--------------------|-------------|

- **Change in condition**

• **Melting point/Melting range:** Not determined

• **Boiling point/Boiling range:** Not determined

• **Sublimation temperature / start:** Not determined

• **Flash point:** Not applicable

Not determined

• **Ignition temperature:** Not determined

• **Decomposition temperature:** Not determined

• **Danger of explosion:**

Product does not present an explosion hazard.

• **Explosion limits:**

• **Lower:** Not determined

• **Upper:** Not determined

• **Vapor pressure:** Not determined

- **Density:** at 20 ° C 1.56
g/cm³

- **Solubility in / Miscibility with**

- **Water:** Not miscible or
difficult to mix

- **10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**

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

- **Materials to be avoided:** Oxidizing agents

- **Dangerous reactions** No dangerous reactions known

- **Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide
Lead oxide fume

- **11 Toxicological information**

- **Acute toxicity:**

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing 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.

- **Additional toxicological information:**

May cause harm to the unborn child.

Possible risk of impaired fertility.

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

EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a causal association between exposure and cancer.

IARC-1: Carcinogenic to humans: sufficient evidence of carcinogenicity.

NTP-2: Reasonably anticipated to be a carcinogen: limited evidence from studies in humans or sufficient evidence from studies in experimental animals.

Carcinogen as defined by OSHA.

- **12 Ecological information:**

- **Ecotoxicological effects:**

- **Remark:** Very toxic for fish

- **General notes:**

Also poisonous for fish and plankton in water bodies.
Do not allow material to be released to the environment without proper governmental permits.
Very toxic for aquatic organisms

- **13 Disposal considerations**

- **Product:**

- **Recommendation**

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

- **Uncleaned packagings:**

- **Recommendation:**

Disposal must be made according to official regulations.

- **14 Transport information**

- **DOT regulations:**

- **Hazard class:** 6.1

- **Identification number:** UN3282

- **Packing group:** III

- **Proper shipping name (technical name):**

toxic, n.o.s. (lead ethylhexanoate)

Organometallic compound,
(II) 2-

- **Land transport ADR/RID (cross-border)**

- **ADR/RID class:** 6.1 Toxic substances

- **Item:** 35c

- **Danger code (Kemler):** 60

- **UN-Number:** 3282

- **Description of goods:** Organometallic compound,
toxic, n.o.s. (lead

(II) 2-ethylhexanoate)

- **Maritime transport IMDG:**

- **IMDG Class:** 6.1

- **UN Number:** 3282

- **Packaging group:** III

- **Proper shipping name:** Organometallic compound,
toxic, n.o.s. (lead

(II) 2-ethylhexanoate)

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** 6.1

- **UN/ID Number:** 3282

- **Packaging group:** III

- **Proper shipping name:** Organometallic compound,
toxic, n.o.s., liquid

(lead (II) 2-ethylhexanoate)

- **15 Regulations**

- **Product related hazard informations:**

- **Hazard symbols:**

T Toxic N Dangerous for the environment

- **Risk phrases:**

61 May cause harm to the unborn child
62 Possible risk of impaired fertility
20/22 Harmful by inhalation and if swallowed.
33 Danger of cumulative effects.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- **Safety phrases:**

53 Avoid exposure - obtain special instructions before use.
45 In case of accident or if you feel unwell, seek medical advice immediately.
60 This material and its container must be disposed of as hazardous waste.
61 Avoid release to the environment. Refer to special instructions/Safety data sheets

- **National regulations**

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. This product contains a chemical known to the state of California to cause cancer or reproductive toxicity.

- **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.

- **16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

- **Department issuing MSDS:** Health, Safety and Environmental Department.
- **Contact:** Darrell R. Sanders