



Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 03/11/2002

Reviewed on 04/15/1999

1 Identification of substance:

- **Product details:**
- **Trade name:** Lead bar
- **Stock number:** 00930
- **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 (CAS# 7439-92-1), 100%
- **Identification number(s):**
- **EINECS Number:** 231-100-4

3 Hazards identification

- **Hazard description:** T Toxic
- **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.

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.

◦ 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**

Product is not flammable. Use fire fighting measures that suit the surrounding fire.

◦ Special hazards caused by the material, its products of combustion or**resulting gases:**

In case of fire, the following can be released:
Toxic metal 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:

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:**
The product is not flammable
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
No special requirements.
- **Information about storage in one common storage facility:**
Do not store together with oxidizing and acidic materials.
- **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	0.05
Belgium TWA	0.15
Germany TWA	0.1
Netherlands TWA	0.15
Switzerland TWA	0.1
United Kingdom TWA	0.1
Denmark TWA	0.1
Finland TWA	0.1
France TWA	0.15
Hungary STEL	0.04
Poland TWA	0.05
Sweden 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:

◦ **Form:** Rod

◦ **Color:** Grey

◦ **Odor:** Odorless

◦

Value/Range Unit

Method

◦ **Change in condition**

◦ **Melting point/Melting range:** 327.43 ° C

◦ **Boiling point/Boiling range:** 1740 ° C

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

◦ **Flash point:** Not applicable

◦ **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:** at 793 ° C 1.33 hPa

◦ **Density:** at 20 ° C 11.34 g/cm³

◦ **Solubility in / Miscibility with**

◦ **Water:** Insoluble

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

Acids

Interhalogens

- **Dangerous reactions** Reacts with oxidizing agents
- **Dangerous products of decomposition:** Lead oxide fume

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Powder: irritant effect
- **on the eye:** Powder: irritant effect
- **Sensitization:** No sensitizing effects known.
- **Other information (about experimental toxicology):**

Mutagenic effects have been observed on tests with laboratory animals.

Reproductive effects have been observed on tests with laboratory animals.

Carcinogenic effects have been observed on tests with laboratory animals.
- **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-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-2: 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.

12 Ecological information:

- **General notes:**

Do not allow material to be released to the environment

without proper governmental permits.

13 Disposal considerations

- **Product:**
- **Recommendation**
Consult state, local or national regulations for proper disposal.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.

14 Transport information

Not a hazardous material for transportation.

- **DOT regulations:**
- **Hazard class:** None
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** None
- **Maritime transport IMDG:**
- **IMDG Class:** None
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** None
- **Transport/Additional information:**
Not dangerous according to the above specifications.

15 Regulations

- **Product related hazard informations:**
- **Hazard symbols:** T Toxic
- **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.
- **Safety phrases:**
 - 53 Avoid exposure - obtain special instructions before use.
 - 45 In case of accident or if you feel unwell, seek medical advice immediately.
- **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

