

Safety Data Sheet per OSHA HazCom 2012

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1 Identification

Product identifier

Product name: Lead(II) tartrate

Stock number: A12388

CAS Number: 815-84-9 EC number: 212-426-6 Index number: 082-001-00-6

Relevant identified uses of the substance or mixture and uses advised against.

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: Alfa Aesar

Alla Aesai Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech@alfa.com www.alfa.com

Information Department: Health, Safety and Environmental Department Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



GHS08 Health hazard

Repr. 1A H360 May damage fertility or the unborn child.

STOT RE 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.



Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H332 Harmful if inhaled.

Hazards not otherwise classified No information known.

Label elements

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms





GHS07 GHS08

Signal word Danger Hazard statements

H302+H332 Harmful if swallowed or if inhaled.
H360 May damage fertility or the unborn child.
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.

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

P304 P340 P INTRICED. Remove person to tresh all and keep communation breathing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
WHMIS classification

D1B - Toxic material causing immediate and serious toxic effects D2A - Very toxic material causing other toxic effects



Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)

HEALTH 2 Health (acute effects) = 2
Flammability = 1
Flammability = 1
Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

CAS# Description: 815-84-9 Lead(II) tartrate

(Contd. on page 2)

Product name: Lead(II) tartrate

Identification number(s): EC number: 212-426-6 Index number: 082-001-00-6

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4 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.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Lead oxide fume

Lead oxide tume
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away Ensure adequate ventilation

Ensure adequate ventilation:
Environmental precautions: Do not allow material to be released to the environment without proper governmental permits.

Methods and material for containment and cleaning up:
Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Ensure adequate ventilation.

Prevention of secondary hazards: No special measures required.

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.

7 Handling and storage

Handling
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.

Information about protection against explosions and fires: No information known.

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.

Specific end use(s) No further relevant information available.

8 Exposure controls/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.

Control parameters

Components with limit values that require monitoring at the workplace:

815-84-9 Lead(II) tartrate (100.0%)

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

Additional information: No data

Exposure controls

Exposure controls
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.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Protection of hands:
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.
Penetration time of glove material (in minutes) Not determined
Eye protection: Safety glasses

(Contd. on page 3)

Product name: Lead(II) tartrate

Body protection: Protective work clothing.

(Contd. of page 2)

9 Physical and chemical properties

Information on basic physical and chemical properties General Information

Appearance: Form: Crystalline powder White Not determined Color:

Odor: Odor threshold: Not determined

pH-value: Not applicable.

Change in condition
Melting point/Melting range:
Boiling point/Boiling range:
Sublimation temperature / start:
Flammability (solid, gaseous)
Ignition temperature:
Decomposition temperature:
Auto igniting: Not determined Not determined Not determined Not determined. Not determined Not determined Auto igniting: Not determined.

Danger of explosion: Explosion limits: Lower: Not determined. Not determined Upper: Not determined

Vapor pressure: Density at 20 °C (68 °F): Relative density Vapor density Not applicable. 2.53 g/cm³ (21.113 lbs/gal) Not determined. Not applicable. Not applicable.

Evaporation rate Solubility in / Miscibility with Water: Not determined Partition coefficient (n-octanol/water): Not determined.

Viscosity: dynamic: Not applicable. kinematic:

Not applicable. Not applicable. No further relevant information available. Other information

10 Stability and reactivity

Reactivity No information known.
Chemical stability Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions Reacts with strong oxidizing agents
Conditions to avoid No further relevant information available.
Incompatible materials: Oxidizing agents
Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Lead oxide fume

11 Toxicological information

Information on toxicological effects

Acute toxicity: Harmful if inhaled.

Harmful if swallowed.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

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

Skin irritation or corrosion: May cause irritation

Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known. Germ cell multagenicity: No 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.
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 epidemologic 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.
IARC-2A: Probably carcinogenic to humans: limited human evidence; sufficient evidence in experimental animals
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.

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

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.
Ecotoxical effects:

Ecotoxical 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.

(Contd. on page 4)

(Contd. of page 3)

Product name: Lead(II) tartrate

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.

13 Disposal considerations

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.

4 Transport informat	ior
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UN-Number DOT, IMDG, IATA

UN2291

UN proper shipping name DOT

Lead compounds, soluble, n.o.s. (Lead(II) tartrate) LEAD COMPOUND, SOLUBLE, N.O.S. (Lead(II) tartrate) IMDG, IATA

Transport hazard class(es)

DOT



Class Label Class

6.1 Toxic substances. (T5) Toxic substances

IMDG, IATA

Class 6.1 Toxic substances

Packing group DOT, IMDG, IATA

Environmental hazards:

Environmentally hazardous substance, solid

Special precautions for user

Segregation groups

Warning: Toxic substances Heavy metals and their salts (including their organometallic compounds), lead and

its compounds

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

DOT

Marine Pollutant (DOT):

No

UN "Model Regulation": UN2291, Lead compounds, soluble, n.o.s. (Lead(II) tartrate), 6.1, III

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms







Signal word Danger Hazard statements

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

P405 P501

Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used for commercial purposes or in formulations for commercial purposes.

This product is not listed on the Canadian Domestic Substances List (NDSL).

SARA Section 313 (specific toxic chemical listings)

815-84-9 Lead(II) tartrate California Proposition 65

Prop 65 - Chemicals known to cause cancer

815-84-9 Lead(II) tartrate

Prop 65 - Developmental toxicity Substance is not listed.
Prop 65 - Developmental toxicity, female Substance is not listed.

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Product name: Lead(II) tartrate

Prop 65 - Developmental toxicity, male Substance is not listed.
Information about limitation of use:
For use only by technically qualified individuals.
This product 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
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.

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. conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the use Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement conceming the International Carriage of Dangerous Goods by Road) IMDG: International Martime Code for Dangerous Goods by Road) IMDG: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances CAs: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Information System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PVPUS: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)