

GHS Material Safety Data Sheet

MSDS No. :LAI01PAEG

Date Issued: 2011/06/01

Section 1. Identification of the substance or mixture and of the supplier

1.1 Product Information

Product name: LaH_x Lanthanum hydride

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|----------------|-----------|-----------|-----------|
| Product number | LAI10PB | LAI11PB | LAI12GB |
| Purity | 99%(2N)up | 99.9%(3N) | 99%(2N)up |
| Form | powder | powder | grains |

1.2 Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd.

1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284

Phone: +81-49-284-1511 Fax: +81-49-284-1351

Emergency Phone : +81-49-284-1511

Section 2. Hazards identification

GHS Classification

| Health Hazards | Environmental Hazards | Physical Hazards |
|-------------------|-----------------------|-------------------|
| No data available | No data available | No data available |

GHS Label: Not applicable**Pictograms or symbols :** Not applicable**Warning word:** Not applicable**Hazard information:** Not applicable**Description of precaution:** Not applicable

Additional hazard information :

May release extremely flammable gases on contact with water.

May ignite spontaneously in moist air.

Section 3. Composition / information on ingredients

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| Chemical or common name: | Lanthanum(III) hydride |
| Single Substance or Compound: | Single substance |
| Chemical formula: | LaH _x |
| Composition: | 100% |
| CAS #: | 13598-35-1 (LaH ₃) |
| TSCA inventory : | listed (LaH ₃) |
| EINECS: | 2376077 (LaH ₃) |
| RTECS#: | not listed |

(See Section 8 for **Exposure Limits**)

Section 4. First aid measures

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| Eye contact: | Promptly rinse eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. |
| Skin contact: | Remove immediately all contaminated clothing. Wipe off the product immediately by tissue or soft cloth, etc. Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues. |
| Ingestion: | Rinse mouth and throat with water. Get medical attention immediately. |
| Inhalation: | Remove the exposed person immediately and provide fresh air. Get medical attention. |

Section 5. Fire fighting measures

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| Extinguishing agents: | Dry chemical powder,soda ash,lime or dry sand. DO NOT use water or foam. |
| Fire fighting: | Flammable material.Burning material releases toxic fumes. May release flammable gases on contact with water. Remove containers to safe place if possible. Use water spray to Cool down nearby structures and containers. Self-contained breathing apparatus and full protective clothing should be used, if the material is involved in fire. |

Section 6. Accidental release measures

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| Personal Precaution: | Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its dusts / fume / gases. |
| Environmental hazard precaution: | Shut off leak if without risk. Prevent flow out to river, etc. so as not to badly affect. |
| Methods for containment and cleaning up: | Wear respirator,chemical safety goggles,rubber boots and impervious gloves. Wear disposable coveralls and discard them after use. Remove all sources of ignition. Avoid unnecessary contacts with spills. Indoor leakage: Ventilate as much as possible until the cleaning is completed. Outdoor leakage: Work from the windward and evacuate the leeward crowd. Cover with dry sand or other non-combustible material,and dispose of DOT-approved waste containers as much as possible. Carefully wash spill site with plenty of water after material pick up. |

Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Handle the material in a dry inert gas atmosphere utilizing glove bag or glove box.
 Keep away from water and sources of ignition.
 Handling worker wears suitable protective clothing.
 Avoid prolonged or repeated exposure.
 Take precautionary measures against static discharges.
 Keep container or bottle tightly closed when not in use.

Precautions to be taken in storage:

General Store the material in a sealed container.
 precautions: Store in a cool, dry, well ventilated place away from incompatible materials.
 Keep away from water and sources of ignition.

Section 8. Exposure controls / personal protection

Exposure guideline: ACGIH(2008)TLV :No data available
 OSHA(2006)PEL :No data available
 Facility measures: Local ventilation of closed work room or total proper ventilation to prevent inhalation.
 Protective ware: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, impervious gloves, protective wear, protective boots.

Section 9. Physical and chemical properties

Color and Form: Black solid
 Chemical formula: LaH_x
 Formula weigh 141.9 (LaH₃)
 Melting point: No data available.
 Boiling point: No data available.
 Solubility: Water: Hydrolyzes in water
 Flammable: flammable substance
 May release extremely flammable gases on contact with water.
 May ignite spontaneously in moist air.
 Oxidation: None

Section 10. Stability and reactivity

Stability: • Stable in an inert gas under room temperature.
 Reactivity: Incompatibility: • Water, acids and oxidizing agents.
 Conditions to avoid: • Heat, sparks and flames. • Moisture
 Hazard decomposition products: • Hydrogen

Section 11. Toxicological information

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| Acute toxicity: | GHS ; No data available |
| Skin corrosive / irritation: | GHS ; No data available |
| Serious eye damage / irritation: | GHS ; No data available |
| Respiratory sensitization: | GHS ; No data available |
| Skin sensitization: | GHS ; No data available |
| Germ cell mutagenicity: | GHS ; No data available |
| Carcinogenicity: | GHS ; No data available |
| Reproductive toxicity: | GHS ; No data available |
| Specific target organ toxicity | |
| — single exposure: | GHS ; No data available |
| — repeated exposure: | GHS ; No data available |
| Aspiration hazard: | GHS ; No data available |

Section 12. Ecological information

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| Ecotoxicity: | |
| Hazards to the aquatic environme | |
| — acute toxicity: | GHS ; No data available |
| — chronic toxicity: | GHS ; No data available |
| Degradability: | No data available |
| Bioaccumulative potential: | No data available |
| Ozone depletion potential: | No Freon or Halon |

Section 13. Disposal considerations

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| Disposal method: | User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste. |
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Section 14. Transport information

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| UN number: | 1409 |
| IATA shipping name: | Metal hydrides, water reactive, n.o.s. |
| IATA classification: | Hazardous Class 4.3 |
| IATA packing group: | II |
| HS code: | 2846.90 |
| Marine pollution: | None |

Section 15. Regulatory information

TSCA inventory : listed(LaH₃)

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.