TECHNICAL DATA SHEET

Date of Issue: 2025/11/03

# Lithium Hydride, powder < 100 µm

| | |
|---|---|
| CAS-No. | 7580-67-8 |
| EC-No. | 231-484-3 |
| REACH No. | 01-2119918290-45-0000 |
| Molecular formula | H-Li |
| Product number | 10000103 |

## APPLICATION

Reducing agent, high density hydrogen source, production of high purity monosilanes.

## SPECIFICATION

| | |
|---|---|
| LiH | min. 97 % |
| Na | max. 0.9 % |
| K | max. 0.05 % |

## PHYSICAL PROPERTIES

| | |
|---|---|
| Appearance | powder |
| Colour | white to grey |
| Melting point/ range | 688 °C |
| Density | 0.78 g/cm3 at 20 °C |
| Bulk density | 290 - 400 kg/m3 |

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

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| | |
|---|---|
| Water solubility | (Substance hydrolyses rapidly.) |
| Molecular weight | 7.95 g/mol |
| Thermal Stability | Decomposition: abt. 800 °C |
| Additional Physical Properties | Theoretical hydrogen content: 12.7 %, equivalent to 2.82 litres of hydrogen per g evolved in hydrolysis Heat of fusion: approx. 2.5 kJ/g H2 equilibrium pressure: 500 °C: 0.09 mbar 850 °C: approx. 1,010 mbar |

## HANDLING & STORAGE

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|---|---|
| Handling | Lithium Hydride should be handled under inert gas atmosphere. Avoid contact with eyes, skin and clothes as well as inhalation. In use may form flammable/explosive dust-air mixtures. Lithium Hydride decomposes in contact with humidity. Pay also attention to the Safety Data Sheet. |
| Storage | Lithium Hydride should be stored in tightly closed containers under exclusion of humidity at gentle temperatures. Keep away from heat, sparks and fire. When stored according to SDS and under exclusion of air and humidity, the material is fairly stable. We still recommend to retest the material 6 months after date of analysis if included on CoA. If not included, use the date of manufacturing for the calculation. Pay also attention to the Safety Data Sheet |

## TRANSPORT & PACKAGING

UN number 1414

| | | | |
|---|---|---|---|
| ADR | Class: 4.3 | PG: I | Label: 4.3 |
| RID | Class: 4.3 | PG: I | Label: 4.3 |
| IMDG | Class: 4.3 | PG: I | Label: 4.3 |
| IATA_C | Class: 4.3 | PG: I | Packing instruction (cargo aircraft): 487 |
| IATA_P | Class: 4.3 | PG: I | |

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Hazard pictograms

| | |
|---|---|
| Signal word | Danger |
| H&P Phrases | See Safety Data Sheet |
| Labelling | The labelling is according to EU-GHS classification ((EG) 1272/2008) and may vary in other countries. Please refer to the respective Safety Data Sheet for your country. |

Packaging

Inner Packing: Solvent soluble SecuBags® from 500 g to 2,000 g in cans and 5 kg SecuBags®. Outer Packing: Appropriate clamping ring steel drums.

## OTHER INFORMATION

| | |
|---|---|
| Further Related Documents | Safety Data Sheet |
| Our brochure(s) | Metal Hydrides |

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