

## TECHNICAL DATA SHEET

Date of Issue: 2026/05/12

# Lithium Deuteride

CAS-No. 13587-16-1

EC-No. 237-018-5

Molecular formula LiD

Product number 11005701

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**APPLICATION** Deuteriated reducing agent, high density deuterium source.

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**PURITY** Deuterium content >97%

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### SPECIFICATION

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LiD min. 97%

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### PHYSICAL PROPERTIES

Appearance solid

Melting point/ range 680 °C

Water solubility (Not applicable)

Molecular weight 8.94 g/mol

Thermal Stability Decomposition: abt. 800 °C

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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.

Technical data sheets may change frequently. You can download the latest version from our website [www.albemarle.com](http://www.albemarle.com).

Please contact us at [www.albemarle.com/contact](http://www.albemarle.com/contact) with questions.



## HANDLING & STORAGE

**Handling** Lithium Deuteride 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 Deuteride decomposes in contact with humidity. Pay also attention to the Safety Data Sheet.

**Storage** Lithium Deuteride 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	

Hazard pictograms



**Signal Word** Danger

**H&P Phrases** See Safety Data Sheet

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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 50 g to 1,000 g in cans. Outer Packing: Appropriate clamping ring

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## OTHER INFORMATION

Further Related              Safety Data Sheet  
Documents

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