

TECHNICAL DATA SHEET

Date of Issue: 2026/07/13

Lithium Sulfide, pure grade, free flowing

CAS-No.	12136-58-2
EC-No.	235-228-1
REACH No.	01-2120119137-63-0000
Molecular formula	Li ₂ S
Product number	10007703, 10007712, 10008331

APPLICATION

Li₂S is a product specially designed for the use in high performance batteries which can be either applied as electrode material or as precursor for solid electrolytes.
Patent list: - patent: DE 10 2012 208 982 A1

SPECIFICATION

Assay Li ₂ S	min. 99.9 %
OH	max. 0.1 mmol/g
Ca	max. 20 mg/kg
Fe	max. 10 mg/kg
Al	max. 5 mg/kg
Cr	max. 5 mg/kg
Pb	max. 5 mg/kg
Na	max. 40 mg/kg

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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K max. 20 mg/kg

Typical Particle Size: 99 % between 150µm - 1300µm.
These values are typical. If you have any specific need, please give us a call.

PHYSICAL PROPERTIES

Appearance	powder granules
Color	colorless to white
Melting point/ range	> 1,000 °C
Density	1.64 g/cm ³
Water solubility	(Not applicable)
Molecular weight	45.95 g/mol

HANDLING & STORAGE

Handling	The product must be handled in dry, inert atmosphere. Use of personal protective equipment.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Recommended storage temperature: -10 to 40 °C

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TRANSPORT & PACKAGING

UN number 3134

ADR	Class: 4.3	PG: I	Label: 4.3 (6.1)
RID	Class: 4.3	PG: I	Label: 4.3 (6.1)
IMDG	Class: 4.3	PG: I	Label: 4.3 (6.1)
IATA_C	Class: 4.3	PG: I	Packing instruction (cargo aircraft): 488
IATA_P	Class: 4.3	PG: I	Not permitted for transport

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

2.3 kg in 4 L aluminum bottles. Other packaging options available upon request.

OTHER INFORMATION

Further Related Safety Data Sheet
Documents

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