

TECHNICAL DATA SHEET

Date of Issue: 2025/02/24

Methylithium, typ. 6 % solution in Diethyl Ether with Lithium Bromide (typ. 2.2 M)

CAS-No.	917-54-4
EC-No.	213-026-4
REACH No.	01-2120065574-52-0000 01-2120065574-52-0001
Molecular formula	CH ₃ Li
Product number	10000124, 10000125, 10001469, 10001470, 10001471

APPLICATION

Methylating agent. Lithiation of organic compounds. The solution contains lithium bromide as a complexing agent. This increases selectivity and reduces reactivity of Methylithium.

SPECIFICATION

Total base	6,0 - 7,0 %
Active base	6,0 - 6,3 %
LiBr	9,0 - 11,0 %

METHOD OF ANALYSIS

Determination of assay as total base by potentiometric titration after hydrolysis. Determination of assay as active base by thermometric titration. LiBr analyzed by argentometric / potentiometric titration.

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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Please contact us at www.albemarle.com/contact with questions.



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PHYSICAL PROPERTIES

Appearance	liquid
Color	colorless to light yellow
Crystallization temperature	ca. -4 °C
Flash point	-45 °C (Diethyl ether)
Boiling point/boiling range	ca. 34.7 °C at 1,013 hPa (Diethyl ether)
Density	ca. 0.81 g/cm ³ at 20 °C
Water solubility	(Reacts violently with water.)
Molecular weight	21.98 g/mol

HANDLING & STORAGE

Handling	Methylithium should only be handled under inert gas atmosphere. Catches fire spontaneously if exposed to air. Avoid contact with eyes, skin and clothes as well as inhalation. Vapors may form explosive mixtures with air. Vapors are heavier than air and may spread along floors. Flash-back possible over considerable distance. Use only explosion-proof equipment. Take measures against electrostatic discharges. Protect from frost, heat and sunlight. Never add water, acids or oxidizing materials to the product. In case of fire use dry extinguishers on basis of sodium chloride or limestone powder. Never use water or CO ₂ -extinguishers. Pay attention to the safety data sheet.
Storage	Recommended storage temperature: 5-15 °C. Keep container tightly closed. When stored according to SDS the material has limited stability due to decomposition over time. We therefore 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.

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TRANSPORT & PACKAGING

UN number 3394

ADR	Class: 4.2	PG: I	Label: 4.2 (4.3)
RID	Class: 4.2	PG: I	Label: 4.2 (4.3)
IMDG	Class: 4.2	PG: I	Label: 4.2 (4.3)
IATA_C	Class: 4.2		
IATA_P	Class: 4.2		

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

Glass bottles of 1,000 mL. Steel bottles and containers with nominal volumes of 7.4, 27 and 450 L. For safety reasons these are filled to a maximum of 90 %.

OTHER INFORMATION

Further Related Safety Data Sheet
Documents

Our brochure(s) Organolithium Compounds

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