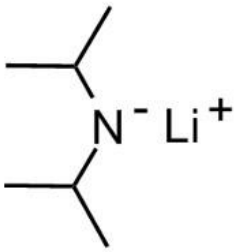
TECHNICAL DATA SHEET

Date of Issue: 2025/10/21

Lithium Diisopropylamide, typ. 25 % solution in Heptane / THF / Ethylbenzene (typ. 1.9 M)



CAS-No.	4111-54-0
EC-No.	223-893-0
REACH No.	01-2119917565-33-0001
Molecular formula	$LiC_6H_{14}N$
Product number	10001646, 10001647, 10001648, 10001649, 10001651

APPLICATION

Strong, low-nucleophilic base for e.g. enolisations.

SPECIFICATION

LDA (active base)	24 – 26 % (1.9 M)

METHOD OF ANALYSIS

Direct titration with benzoic acid against 4-phenyl-azo-diphenyl-amine for the determination of active base (modified Watson-Eastham). Detailed description available on request.

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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PHYSICAL PROPERTIES

Appearance	liquid
Colour	slight yellow to red brown
Crystallization temperature	< 0 °C
Flash point	-21.2 °C 1,013 hPa (Tetrahydrofuran)
Boiling point/boiling range	66 °C (Tetrahydrofuran)
Density	ca. 0.80 g/cm3 at 20 °C
Water solubility	(Not applicable)
Molecular weight	107.13 g/mol

HANDLING & STORAGE

Handling	Lithium Diisopropylamide should be handled under inert gas atmosphere. 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. Lithium Diisopropylamide decomposes in contact with humidity. In case of fire use dry extinguishers on basis of sodium chloride or limestone powder. Never use water or CO2-extinguishers. Pay also attention to the Safety Data Sheet.
Storage	Lithium Diisopropylamide should be stored in tightly closed containers under exclusion of humidity at gentle temperatures. The product tends to crystallize at temperatures below 0 °C. On prolonged storage at higher temperatures product is decomposing. Average decomposition rate: at 23 °C < 0.1 wt.% (of 25 %) per day at 40 °C < 0.3 wt.% (of 25 %) per day Recommended storage temperature: 0 - 15 °C. Keep away from heat, sparks and fire. Pay also attention to the Material Safety Data Sheet.

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TRANSPORT & PACKAGING

UN number 2924

ADR	Class: 3	PG: II	Label: 3 (8)
RID	Class: 3	PG: II	Label: 3 (8)
IMDG	Class: 3	PG: II	Label: 3 (8)
IATA_C	Class: 3	PG: II	Packing instruction (cargo aircraft): 363
IATA_P	Class: 3	PG: II	Packing instruction (passenger aircraft): 352

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 100, 250, 500 and 1,000 ml. Steel bottles with volumes of 7.4, 27, 127 or 450 l. For safety reasons these are filled to a maximum of 90 %. Steel drums up to 200 l net.

OTHER INFORMATION

Further Related Documents Safety Data Sheet

Our brochure(s) Lithium & Magnesium Amides

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