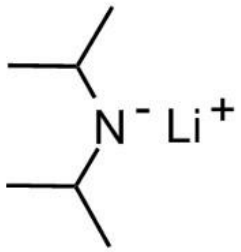
TECHNICAL DATA SHEET

Date of Issue: 2025/10/21

Lithium Diisopropylamide, typ. 28 % solution in Heptane / THF / Ethylbenzene (typ. 2.1 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	10000280, 10000281, 10001652, 10001653, 10001654, 10001655, 10001656, 10001657, 10001658, 10001659, 10001660

APPLICATION

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

FURTHER INGREDIENTS

tetrahydrofuran	
CAS-No.	109-99-9
EC-No.	203-726-8
ethylbenzene	
CAS-No.	100-41-4
EC-No.	202-849-4
heptane	
CAS-No.	142-82-5
EC-No.	205-563-8
diisopropylamine	
CAS-No.	108-18-9
EC-No.	203-558-5

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SPECIFICATION

LDA (active base)	27 – 29 % (2.1 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.

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.

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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 28 %) per day at 40 °C < 0.3 wt.% (of 28 %) per day Recommended storage temperature: 0 - 15 °C. Keep away from heat, sparks and fire. Pay also attention to the Material Safety Data Sheet.

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.

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Packaging

Glass bottles of 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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