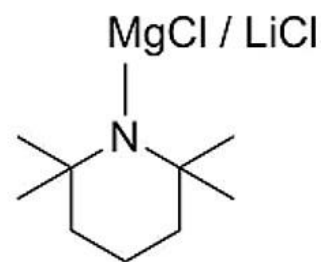


TECHNICAL DATA SHEET

Date of Issue: 2026/02/18

2,2,6,6-Tetramethylpiperidide magnesium chloride / lithium chloride, typ. 22% in THF



CAS-No.	215863-85-7
REACH No.	01-2120763164-56-0000
Molecular formula	C ₉ H ₁₈ ClMgN
Product number	10004672, 10006851, 10008384

APPLICATION

Selective deprotonation of arenes and heteroarenes. Arenes and heteroarenes are typically deprotonated by a directed lithiation using organolithium compounds or organolithiumamides (e.g. LDA). The high reactivity and nucleophilicity of these reagents often result in unwanted side reactions and precludes the presence of sensitive functional groups like esters or ketones. Additionally, such deprotonation reactions often require low temperatures leading to higher production costs on larger scale. Due to their low kinetic basicity magnesiumamides tolerate a lot of functional groups.

SPECIFICATION

Active base as TMPMgCl	21,0 - 23,0 %
w/o LiCl	
LiCl	4,9 - 5,9 %
molar ratio LiCl/active base	1,0 - 1.3

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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METHOD OF ANALYSIS

Determination of active base by thermometric titration. Lithiumchloride content is calculated by Lithium content which is measured by FES. Detailed description is available on request.

PHYSICAL PROPERTIES

Appearance	liquid
Colour	brown
Melting point/freezing point	-108.44 °C at 1,013 hPa (Tetrahydrofuran)
Flash point	-21.2 °C 1,013 hPa (Tetrahydrofuran)
Boiling point/boiling range	66 °C at 1,013 hPa (Tetrahydrofuran)
Density	0.97 g/cm ³ at 25 °C
Molecular weight	200.01 g/mol
Thermal Stability	slow decomposition above 20°C

HANDLING & STORAGE

Handling	Organomagnesium compounds should only be handled under inert gas. 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 SDS.
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Storage Store in well ventilated areas in tightly closed containers. As material decomposes slowly above room temperature recommended storage temperature is -10°C - +20°C.
When stored according to SDS the material has limited stability due to decomposition over time. We therefore recommend to retest the material 6 month after date of analysis if included on CoA. If not included, use the date of manufacturing for the calculation.

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 bottle of 500 mL. Steel drums with 200 L net volume.

OTHER INFORMATION

Further Related Documents Safety Data Sheet

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