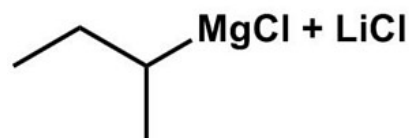


TECHNICAL DATA SHEET

Date of Issue: 2017/09/06

sec-Butylmagnesium Chloride / Lithium Chloride (TurboGrignard), typ. 15 % solution in THF (typ. 1.2 M)



CAS-No.	1032768-06-1
Molecular Formula	C ₄ H ₉ ClMg / LiCl
Product Number	408525

APPLICATION Reagent for halogen/magnesium exchange reactions.

FURTHER INGREDIENTS

Tetrahydrofuran

CAS-No.	109-99-9
EC-No.	203-726-8

sec-Butylmagnesium chloride

CAS-No.	15366-08-2
EC-No.	239-403-3

Lithium chloride

CAS-No.	7447-41-8
EC-No.	231-212-3

SPECIFICATION

sec-Butylmagnesium Chloride: 14.0 - 16.0 %

METHOD OF ANALYSIS

Determination of assay as total base by acidimetric titration after hydrolysis; detailed description available on request.

PHYSICAL PROPERTIES

Appearance	liquid
Color	brown cloudy

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.

Technical data sheets may change frequently. You can download the latest version from our website www.albemarle-lithium.com. Please contact us at www.albemarle-lithium.com/contact with questions.

% solution in THF (typ. 1.2 M)

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Crystallization temperature	ca. -5 °C
Flash point	-21.2 °C (Tetrahydrofuran)
Boiling point/boiling range	66 °C (Tetrahydrofuran)
Density	0.95 g/cm ³ at 20 °C
Water solubility	(Not applicable)
Molecular weight	159.27 g/mol
Thermal Stability	Crystallization below around -5 °C
Additional Physical Properties	Molecular weight: 116.88 g/mol for sec-Butylmagnesium Chloride 42.40 g/mol for Lithium Chloride

HANDLING & STORAGE

Handling	Organomagnesium compounds should only be handled under inert gas (nitrogen or argon). 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 official safety regulations (see also: 'Transport regulations' and 'GHS Hazard Pictograms').
Storage	Under exclusion of air and humidity stable over practically unlimited periods. As material tends to crystallize at lower temperatures, it should be stored above -5 °C. Precipitates can be redissolved by warming and appropriate homogenization. Keep container dry and tightly closed.

TRANSPORT & PACKAGING

UN number 3399

ADR	Class: 4.3	PG: I	Label: 4.3 (3)
RID	Class: 4.3	PG: I	Label: 4.3 (3)
IMDG	Class: 4.3	PG: I	Label: 4.3 (3)
IATA_C	Class: 4.3	PG: I	Packing instruction (cargo aircraft): 494
IATA_P	Class: 4.3	PG: I	

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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.

OTHER INFORMATION

Further Related Safety Data Sheet
Documents

Our brochure(s) Organolithium Compounds, Turbo Grignards - Li powered metalation

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