

TECHNICAL DATA SHEET

Date of Issue: 2025/02/24

n-Butylmagnesium Chloride, typ. 20 % solution in THF (typ. 1.7 M)



CAS-No.	693-04-9
EC-No.	211-739-5
REACH No.	01-2120065579-42-0000
Molecular formula	C ₄ H ₉ ClMg
Product number	10001661, 10001662, 10001663

APPLICATION Grignard-reactions: reagent for the introduction of the n-butyl group.

SPECIFICATION

n-Butylmagnesium Chloride: 18.0 – 22.0 %

METHOD OF ANALYSIS

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

PHYSICAL PROPERTIES

Appearance	liquid
Color	yellow to brown

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.com.

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

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Crystallization temperature	<= 10 °C
Flash point	-21.2 °C 1,013 hPa (Tetrahydrofuran)
Boiling point/boiling range	66 °C (Tetrahydrofuran)
Density	ca. 0.98 g/cm ³ at 20 °C
Water solubility	(Reacts violently with water.)
Molecular weight	116.87 g/mol
Thermal Stability	Crystallization below around 10 °C

HANDLING & STORAGE

Handling	n-Butylmagnesium Chloride should only be handled under inert gas atmosphere. Avoid contact with eyes, skin and clothes as well as inhalation. Never add water, acids or oxidizing materials. Protect from frost, heat and sunlight. In case of fire use dry extinguishers based on sodium chloride or limestone powder, never use water or CO ₂ . Pay attention to the Safety Data Sheet.
Storage	n-Butylmagnesium Chloride should be stored in tightly closed containers under exclusion of air and humidity. As material tends to crystallize at lower temperatures, it should be stored above 15 °C. When stored according to SDS the material is fairly stable. We still 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.

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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	

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 500 and 1,000 mL. Steel bottles with volume of 450 L. For safety reasons these are filled to a maximum of 90 %. Steel drums 200 L.

OTHER INFORMATION

Further Related Documents Safety Data Sheet

Our brochure(s) Organomagnesium Compounds

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