

## TECHNICAL DATA SHEET

Date of Issue: 2025/01/24

# Dibutylmagnesium, typ. 15 % solution in Hexane (typ. 0.7 M)

CAS-No.	39881-32-8
EC-No.	254-671-1
REACH No.	01-2120102493-68-0000
Molecular formula	C <sub>8</sub> -H <sub>18</sub> -Mg
Product number	10001056, 10001759, 10001760, 10001761, 10001762, 10001763

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**APPLICATION** Metalating agent for amines, alcohols and carboxylic acids. Reagent for synthesis of Ziegler-Natta catalyst system. Modifier for anionic polymerization initiation.

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### SPECIFICATION

Dibutylmagnesium:	15.0 – 16.0 %
Lithium:	max. 0,015 %
Chloride:	max. 0,25 %
Magnesium:	min. 2,0 %

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### METHOD OF ANALYSIS

Determination of assay as total base by acidimetric titration after hydrolysis, Lithium by FES, Chloride by argentometric titration and Magnesium by komplexometric titration. Detailed description available on request.

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## PHYSICAL PROPERTIES

Appearance	liquid
Color	clear to cloudy light yellow
Crystallization temperature	< -20 °C
Flash point	< -30 °C
Boiling point/boiling range	56.1 °C at 900.4 hPa Method: OECD Test Guideline 103 (Mixture)  65 - 70 °C at 1,013 hPa Method: ISO 3405 (Hexane)
Density	0.70 g/cm <sup>3</sup> at 20 °C Method: OECD Test Guideline 109
Water solubility	(Not applicable)
Molecular weight	144 g/mol
Grain Size	Crystallization below -20 °C

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## HANDLING & STORAGE

Handling	Dibutylmagnesium solutions are non-pyrophoric. Increase in concentration due to evaporation of solvent results in rising danger of self-ignition. The material should only be handled under inert gas atmosphere. 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. Protect from frost, heat and sunlight. Never add water, acids or oxidizing materials. In case of fire use dry extinguishers based on sodium chloride or limestone powder, never use water or CO <sub>2</sub> . Pay attention to the Safety Data Sheet - Section 7.
Storage	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. As material tends to crystallize at lower temperatures, it should be stored above -10 °C.

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## TRANSPORT &amp; 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&amp;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 bottle 1,000 mL. Steel bottles/container with volumes of 27, 125, 127, 450, 2500L and ISO tank. For safety reasons these are filled to a maximum of 90 %.

## OTHER INFORMATION

Further Related Documents Safety Data Sheet

Our brochure(s) Organomagnesium Compounds

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