

# MAGALA BEM

n-Butylethylmagnesium, heptane solutions

MAGALA® BEM is a magnesium alkyl used for deprotonation in organic synthesis.

CAS number  
62202-86-2

EINECS/ELINCS No.  
263-454-0

TSCA status  
listed on inventory

## Characteristics

Appearance	Clear, colorless to slightly hazy liquid
Density, 30°C	0.726 g/cm <sup>3</sup>
Melting point	-42 °C
Solubility	Soluble in aromatic and saturated aliphatic and cycloaliphatic hydrocarbons
Stability to air	May ignite upon exposure
Stability to water	Reacts violently, may ignite upon contact
Viscosity, 30°C	37.2 mPa.s

## Composition

Aluminum	<sup>a c</sup> max. 0.16 wt%
Chloride	<sup>a c</sup> max. 0.30 wt%
Ethane	<sup>a b</sup> 40-60 molar%
Magnesium	<sup>a c</sup> 4.20-4.60 wt%
n-Butane	<sup>a b</sup> 40-60 molar%

### Notes:

<sup>a</sup> Data for 20wt% solution in heptane; product is also available in lower concentrations. <sup>b</sup> Calculated from gas chromatographic analysis of hydrocarbons obtained by hydrolysis; may contain small amounts of hydrogen and other hydrocarbons. <sup>c</sup> Determined by titration of aqueous hydrolyzate.

## Applications

MAGALA® BEM is used in the manufacture of Ziegler-Natta catalysts for polymerization of olefins.

## Storage

MAGALA® BEM heptane solutions are stable when stored under a dry, inert atmosphere and away from heat. MAGALA® BEM decomposes slowly above 150°C.

## Packaging and transport

MAGALA® BEM heptane solutions are available worldwide in cylinders and portable tanks. In North America only, MAGALA® BEM heptane solutions are also available in tank trailers and rail cars. Containers are fabricated from carbon steel and are equipped with dip tubes for top discharge and all connections are located in the vapor space. Both packaging and transport meet the international regulations.

## Safety and handling

MAGALA® BEM heptane solutions must be handled under a dry, inert atmosphere, e.g. nitrogen or argon. Water must be scrupulously removed from process equipment prior to putting it into metal alkyls service. Failure to do so may result in an explosion. MAGALA® BEM solutions may ignite upon exposure to air or upon contact with water. Products of complete combustion of MAGALA® BEM are magnesium oxide, carbon dioxide and water. Please refer to the Safety Data Sheet (SDS) for further information on the safe storage, use and handling of heptane solution of MAGALA® BEM. This information should be thoroughly reviewed prior to acceptance of this product. The SDS is available at [nouryon.com/sds-search](http://nouryon.com/sds-search).

## Additional information

Availability: MAGALA® BEM is a commercial product available as solutions in heptane. The product is not available neat. Consult your Nouryon representative for further information.

All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Nouryon, however, makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nouryon does not accept any liability whatsoever arising out of the use of or reliance on this information, or out of the use or the performance of the product. Nothing contained herein shall be construed as granting or extending any license under any patent. Customer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes. The information contained herein supersedes all previously issued information on the subject matter covered. The customer may forward, distribute, and/or photocopy this document only if unaltered and complete, including all of its headers and footers, and should refrain from any unauthorized use. Don't copy this document to a website.

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The logo for Nouryon, featuring a stylized blue 'N' followed by the word 'ouryon' in a blue sans-serif font.