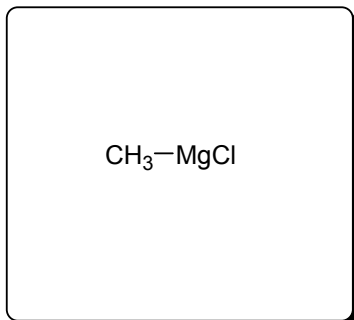


METHYL MAGNESIUM CHLORIDE (in Tetrahydrofuran)

PRODUCT INFORMATION

DESCRIPTION

Arkema Inc. Methyl Magnesium Chloride [CAS# 676-58-4] is a translucent liquid with the following properties:



TYPICAL PROPERTIES

Formula	CH ₃ MgCl
Molecular Weight	74.8
EINECS No.	2116297

Titer* (moles/kg solution)	2.0	3.0
Weight Percent Active	15.0	22.4
Specific Gravity at 25°C	0.98	0.98
Flash Point (tag closed cup)	-14.5°C (6°F)	-14.5°C (6°F)
Auto-ignition temperature	321°C (610°F)	321°C (610°F)
Form	Liquid	Liquid
Color**	Variable	Variable

* Determined by titration (See Reference #1)

** Although this product may vary from light to dark, the color has no effect on its reactivity

Arkema Inc. Grignard reagents, such as Methyl Magnesium Chloride, are used as building blocks for synthesis in various applications.

BENEFITS

Methyl Magnesium Chloride has a lower reactivity than Methyl Magnesium Bromide allowing for milder reaction conditions especially when there is base competition.

RECOMMENDED USES

Methyl Magnesium Chloride is used as a synthetic building block such as nucleophilic substitution.

Methyl Magnesium Chloride can be used as a strong base especially when accompanied by an amine.

STORAGE

Methyl Magnesium Chloride in THF is manufactured and packaged under

a blanket of dry nitrogen. Under such conditions, it is stable indefinitely. At low temperatures (0°C, 32°F), this compound may crystallize out of solution as a THF complex. When held at normal room temperature (20 to 25°C, 65 to 75°F), this complex slowly goes back into solution.

Grignard reagents in THF are extremely flammable. Proper precautions should be exercised in handling all flammable materials. For details on handling and storage, please consult the MSDS.

PACKAGING

Methyl Magnesium Chloride is available in 5 gallon pails and 55 gallon drums both sealed under a blanket of dry nitrogen to retain full reactivity during storage.

In addition, we can develop a returnable cylinder program to suit your needs.

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ARKEMA GRIGNARD REAGENTS

Butyl Magnesium Chloride
Ethyl Magnesium Bromide
Methyl Magnesium Bromide
Methyl Magnesium Chloride
Phenyl Magnesium Chloride



REFERENCES

For an excellent review of Grignard chemistry, the following publications are recommended:

1. "Handbook of Grignard Reagents," Silverman, G.S. and Rakita, P.E., Eds., Marcel Dekker, Inc., New York (1996).
2. Nesmeyanov, A.N. and Kocheshkov, K.A., Methods of Elemento-Organic Chemistry. Vol. 2, Ioff, S.T. and Nesmeyanov, AX, The Organic Compounds of Magnesium, Beryllium, Calcium, Strontium, and Barium, The World Publishing Co., Cleveland (1967).
3. Kharasch, M.S. and Reinmuth, O., Grignard Reactions of Non-Metallic Substances, Prentice Hall Inc., N.Y. (1954).

CUSTOM SYNTHESIS AND OUTSOURCING

We also provide custom synthesis and outsourcing options for Grignard-derived materials. Arkema's capabilities include producing and coupling Grignard reagents on a full commercial scale with solvent and hazardous waste recovery.

Our experts in Grignard technology welcome the opportunity to discuss your custom synthesis needs.

NOTE: Please consult MSDS for updated and detailed safety and health information.

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See MSDS for Health & Safety Considerations
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