



>>Entry Name: Magnesium chlorate(V) (Mg(ClO₃)₂)

ENTRY UNDER REVIEW

Synonym(s): Chloric acid, magnesium salt, 8Cl

CAS Registry Number: 10326-21-3

Mg(ClO₃)₂

Molecular Formula: Cl₂MgO₆

Molecular Weight: 191.207

Accurate Mass: 189.892236

Percentage Composition: Cl 37.08%; Mg 12.71%; O 50.21%

Source/Synthesis: Prepd. by metathesis of MgCl₂ and NaClO₃ in Me₂CO. Also obt. by thermal dehydration of the hexahydrate at 100° *in vacuo*. Manuf. for agricultural use by reaction of NaClO₃ with MgCl₂, MgCl₂·6H₂O or MgSO₄·7H₂O at elevated temps.

Use/Importance: Constit. of composite explosives. Powerful desiccant and defoliant (esp. for cotton, soft fruit, potato, rice and wheat)

Physical Description: Extremely hygroscopic colourless cryst.

Solubility: V. sol. H₂O

>>Derivative: Hexahydrate

CAS Registry Number: 7791-19-7

Molecular Formula: Cl₂H₁₂MgO₁₂

Molecular Weight: 299.298

Accurate Mass: 297.955626

Percentage Composition: Cl 23.69%; H 4.04%; Mg 8.12%; O 64.15%

Source/Synthesis: Commercially available. Cryst. from aq. solns. of Mg(ClO₃)₂

Physical Description: Colourless cubic cryst.

Melting Point: Mp 40°

Solubility: V. sol H₂O (129 g per 100 cm³ at 18°); sol. EtOH

References:

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