



>>Entry Name: Magnesium borides

CAS Registry Number: 12795-15-2

Related CAS Registry Numbers(s): 62852-63-5

Molecular Formula: [BMg]

>>Variant: Magnesium boride (MgB₂), 9Cl, 8Cl

CAS Registry Number: 12007-25-9

Molecular Formula: B₂Mg

Molecular Weight: 45.927

Accurate Mass: 46.003652

Percentage Composition: B 47.08%; Mg 52.92%

Source/Synthesis: Synth. from elements at 1200-1400°

Other Data: Highly reactive to HNO₃, H₃PO₄, HCl and H₂SO₄. At 1150°→MgB₄

>>Variant: Magnesium boride (MgB₆)

Synonym(s): Magnesium hexaboride

CAS Registry Number: 12008-22-9

Molecular Formula: B₆Mg

Molecular Weight: 89.171

Accurate Mass: 90.040872

Percentage Composition: B 72.74%; Mg 27.26%

Source/Synthesis: Synth. from B + Mg at 1100°

Melting Point: Mp 1100 dec.°

Other Data: Resistant to boiling 6M HCl. Slowly attacked by boiling HClO₄ or conc. HNO₃, or aqua regia

>>Variant: Magnesium boride (MgB₁₂), 9Cl, 8Cl

Synonym(s): Magnesium dodecaboride

CAS Registry Number: 12230-32-9

Molecular Formula: B₁₂Mg

Molecular Weight: 154.037

Accurate Mass: 156.096702

Percentage Composition: B 84.22%; Mg 15.78%

Source/Synthesis: Synth. from Mg + B + MgB₂ at 1250°

Melting Point: Mp 1300 dec.°

Other Data: Resistant to boiling 6M HCl

References:

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