



>>Entry Name: Magnesium chromate(VI) (MgCrO₄)

Synonym(s): Chromate(VI) magnesium salt (1:1)

CAS Registry Number: 13423-61-5

Related CAS Registry Numbers(s): 83636-53-7

MgCrO₄

Molecular Formula: CrMgO₄

Molecular Weight: 140.299

Accurate Mass: 139.905211

Percentage Composition: Cr 37.06%; Mg 17.32%; O 45.62%

Source/Synthesis: Formed from Cr₂O₃ + MgO + O at 12 atm.

Use/Importance: Commercially available

Other Data: Dec. at =1200-1250°. Hemihydrate known at 330-390°

>>Derivative: Monohydrate

CAS Registry Number: 38885-69-7

Solubility: Sol. H₂O

Other Data: Dehydrates at 160 to 170°

>>Derivative: Dihydrate

CAS Registry Number: 38885-68-6

Solubility: Sol. H₂O

Other Data: Loses 1 H₂O at 100-110°

>>Derivative: Pentahydrate

CAS Registry Number: 16569-85-0

Physical Description: Yellow triclinic cryst.

Solubility: Sol. H₂O

Other Data: Loses 3 H₂O at 50-60°

Aldrich: 41518-9

>>Derivative: Heptahydrate

CAS Registry Number: 13446-54-3

Physical Description: Orange-yellow rhombic cryst.

Solubility: Sol. H₂O

Other Data: Loses 2 H₂O at 17.2°

References:

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Courtine, P. *et al.*, *Bull. Soc. Chim. Fr.*, 1969, 57, (cryst struct)

Bertrand, G. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1971, **272**, 530, (cryst struct, pentahydrate)

Revzin, G.E. *et al.*, *Zh. Neorg. Khim.*, 1982, **27**, 2204; *Russ. J. Inorg. Chem. (Engl. Transl.)*, 1982, **27**, 1244, (thermal dec)