



>>Entry Name: Chromium(II) fluoride (CrF₂)

Synonym(s): Chromium difluoride. Chromous fluoride

CAS Registry Number: 10049-10-2

CrF₂

Molecular Formula: CrF₂

Molecular Weight: 89.993

Accurate Mass: 89.937315

Percentage Composition: Cr 57.78%; F 42.22%

General Statement: Distorted rutile struct.

Source/Synthesis: Several synths. reported e.g. from HF and CrCl₂ at 25°

Use/Importance: Used in chromising steels

Physical Description: Blue-green cryst.

Melting Point: Mp 894°

Solubility: Insol. H₂O

Other Data: $\mu_{\text{eff}} = 4.3\mu_{\text{B}}$ (298K). Chemically rather inert

Aldrich: 39989-2

Fluka: 27099

References:

Peacock, R.D., *Prog. Inorg. Chem.*, 1960, **2**, 195, (*synth, props*)

Gmelin Handbook Inorg. Chem., Syst. No. 52, 1962, 175, (*rev, bibl*)

Sturm, B.J., *Inorg. Chem.*, 1962, **1**, 665, (*rev, synths*)

Fergusson, J.E., *Halogen Chem.*, (Ed. Gutmann, V.), Academic Press, London, 1967, **3**, 228, (*rev, bibl*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **1**, 263, (*synth*)