



>>Entry Name: **Iron(III) perchlorate**

Synonym(s): Ferric perchlorate

CAS Registry Number: 13537-24-1

Related CAS Registry Numbers(s): 55144-08-6 55144-09-7

$\text{Fe}(\text{ClO}_4)_3$

Molecular Formula: $\text{Cl}_3\text{FeO}_{12}$

Molecular Weight: 354.198

Accurate Mass: 352.780475

Percentage Composition: Cl 30.03%; Fe 15.77%; O 54.20%

Source/Synthesis: Prepd. from " $\text{Fe}(\text{OH})_3$ " + aq. HClO_4

Physical Description: Yellow solid (anhyd.)

Fluka: 44960

>>Derivative: Hydrate

CAS Registry Number: 15201-61-3

Use/Importance: Commercially available

Other Data: Variable H_2O content

Aldrich: 30928-1

>>Derivative: Hexahydrate

Synonym(s): Iron(III) perchlorate hexahydrate. Ferric perchlorate hexahydrate. Hexaaquairon(III) perchlorate

CAS Registry Number: 32963-81-8

Physical Description: Violet cryst.

>>Derivative: Decahydrate

Physical Description: Pale pink cryst. (H_2O)

Other Data: Other hydrates also known

References:

Lindstrand, F., *Z. Anorg. Allg. Chem.*, 1936, **230**, 187, (*synth*)

Sutin, N., *J. Phys. Chem.*, 1960, **64**, 1766, (*uv*)

Wayland, B.B. *et al.*, *Inorg. Chem.*, 1966, **5**, 54, (*pmr, hydrate*)

Chatbouni, N. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1978, **287**, 419, (*synth, anhyd form*)