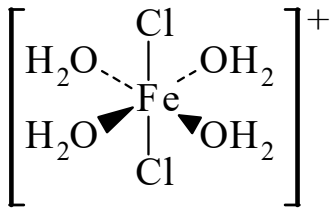
>>**Entry Name: Tetraaquadichloroiron(*III*)(1+)**



Molecular Formula: $Cl_2FeH_8O_4^{(+)}$
Molecular Weight: 198.813
Accurate Mass: 197.914903
Percentage Composition: Cl 35.66%; Fe 28.09%; H 4.06%; O 32.19%

Use/Importance: Has applications in photoengraving, etching, photography

>>**Variant:** *trans*-form

Molecular Formula: $Cl_2FeH_8O_4$
Molecular Weight: 198.813
Accurate Mass: 197.914903
Percentage Composition: Cl 35.66%; Fe 28.09%; H 4.06%; O 32.19%

>>**Derivative:** Chloride, dihydrate
Synonym(s): Ferric chloride hexahydrate. Iron(*III*) chloride hexahydrate

CAS Registry Number: 10025-77-1
Molecular Formula: $Cl_3FeH_{12}O_6$
Molecular Weight: 270.296
Accurate Mass: 268.904885
Percentage Composition: Cl 39.35%; Fe 20.66%; H 4.47%; O 35.52%
Source/Synthesis: Synth. from $FeCl_3 + H_2O$
Physical Description: Orange-brown v. hygroscopic cryst.
Melting Point: Mp 37°
Solubility: Sol. H_2O, EtOH, Me_2CO, Et_2O
Other Data: Acidic in aq. soln.
Hazard & Toxicity: Irritant

Aldrich: 23648-9
Fluka: 44945
Sigma: F1513

References:

Lind, J.*, J. Chem. Phys.*, 1967, **47**, 990, *(cryst struct)*
Lewis, R.J.*, Sax's Dangerous Properties of Industrial Materials, 8th edn., Van Nostrand Reinhold*, 1992, FAW000