



>>Entry Name: **Iron(III) hydroxide (Fe(OH)₃)**

Synonym(s): Ferric hydroxide. Ferric hydrate. Hydrated iron oxide. Hydrated ferric oxide. Hydroxohaematite

CAS Registry Number: 1309-33-7

Fe(OH)₃

Molecular Formula: FeH₃O₃

Molecular Weight: 106.869

Accurate Mass: 106.943159

Source/Synthesis: Synth by oxidation of Fe(II) or precipitation of Fe(III) with base

Use/Importance: Has applications in water purif., pigments, catalysis. Synthetic precursor to Fe(III) compds.

Physical Description: In basic soln., flocculent brown ppt. drying to give Fe₂O₃

Melting Point: Mp 500° (loses H₂O)

Solubility: Sol. acids; insol. H₂O, EtOH, Et₂O

Other Data: See also Iron(III) oxide (Fe₂O₃) [HQL79-L](#). [Fe(OH)₃]/Fe(OH)₂, OH⁽⁻⁾. E° -0.56V

References:

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Wolska, E., *Z. Kristallogr.*, 1981, **154**, 69, (struct)

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