



>>Entry Name: Cobalt(II) sulfate (CoSO₄), 8Cl

ENTRY UNDER REVIEW

Synonym(s): Cobaltous sulfate

CAS Registry Number: 10124-43-3

Related CAS Registry Numbers(s): 15136-97-7 60459-08-7

Extra CAS Registry Numbers(s): 10393-49-4

CoSO₄

Molecular Formula: CoO₄S

Molecular Weight: 154.997

Accurate Mass: 154.884928

Percentage Composition: Co 38.02%; O 41.29%; S 20.69%

Source/Synthesis: Crystallisation from H₂O gives heptahydrate, which at 41.5° gives hexahydrate, which in turn at 71° gives monohydrate

Use/Importance: Commercially available as mono- and hexahydrates

Physical Description: Dark bluish solid

Solubility: Sol. H₂O

Other Data: Anhydrous compd. dec. at 735°

>>Derivative: Monohydrate

Physical Description: Red cryst.

Solubility: Sol. H₂O

>>Derivative: Hexahydrate

Synonym(s): Hexaaquacobalt(2+) sulfate. Cobalt(II) sulfate hexahydrate

CAS Registry Number: 16591-12-1

Molecular Formula: CoH₁₂O₁₀S

Molecular Weight: 263.088

Accurate Mass: 262.948318

Percentage Composition: Co 22.40%; H 4.60%; O 60.81%; S 12.19%

Source/Synthesis: Obt. on cryst. below 30°

Physical Description: Orange-pink cryst.

Solubility: Sol. H₂O

Other Data: Hygroscopic; contains [Co(OH₂)₆]²⁽⁺⁾ cations. Dec. at 95° (-2H₂O)

>>Derivative: Heptahydrate

Synonym(s): Cobalt vitriol. Bieberite

CAS Registry Number: 10026-24-1

Source/Synthesis: Mineral found in stalactites

Use/Importance: Pigment

Physical Description: Red cryst.

Melting Point: Mp 96.8°

Solubility: Sol. H₂O, MeOH, EtOH

Other Data: Formulated as [Co(OH₂)₆]SO₄.H₂O

Fluka: 60860

>>Derivative: Double salt with ammonium sulfate, hexahydrate

CAS Registry Number: 13586-38-4

Physical Description: Red cryst.

Solubility: Sol. H₂O

References:

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