



CAS Registry Number: 12137-12-1

Molecular Formula: Ni₃S₄

Molecular Weight: 304.334

Accurate Mass: 301.694318

Percentage Composition: Ni 57.85%; S 42.15%

Source/Synthesis: Mineral, occurs in Germany

Physical Description: Grey-black cryst.

Solubility: Sol. HNO₃

>>Variant: Nickel sulfide (NiS₂)

CAS Registry Number: 12035-51-7

Molecular Formula: NiS₂

Molecular Weight: 122.822

Accurate Mass: 121.879486

Percentage Composition: Ni 47.78%; S 52.22%

Source/Synthesis: Synth. from Nickel(II) carbonate (NiCO₃) JCB86-P + K₂CO₃ + S

Physical Description: Dark iron grey solid

Other Data: Antiferromagnetic

Aldrich: 34247-5

References:

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Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **3**, 1692, (*synth*)

Kirk-Othmer Encycl. Chem. Technol., 3rd edn., Wiley, 1978, **15**, 805

Pasquariello, D.M. *et al.*, *Inorg. Chem.*, 1984, **23**, 872, (*Ni₃S₂*)

Wells, A.F., *Structural Inorg. Chem.*, 5th Ed., Oxford, 1984, 752, (*struct*)

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