



>>Entry Name: Sodium thioantimonate (Na₃SbS₄)

Synonym(s): Trisodium thioantimonate (SbS₄³⁽⁻⁾), 9Cl, 8Cl. Trisodium sulfoantimonate. Trisodium tetrathioxoantimonate(3-), 10Cl. Tetrathioantimonate(V), trisodium salt

CAS Registry Number: 13776-84-6

Na₃SbS₄

Molecular Formula: Na₃S₄Sb

Molecular Weight: 318.983

Accurate Mass: 317.761402

Percentage Composition: Na 21.62%; S 40.21%; Sb 38.17%

Source/Synthesis: Synth. from Sb₂S₃ + NaOH + C. Anhydrous salt from nonahydrate at 180°

>>Derivative: Nonahydrate

Synonym(s): Schlippe's salt

CAS Registry Number: 10101-91-4

Source/Synthesis: Synth. from Sb₂S₃ + S + NaOH aq.; or from Sb + Na₂S aq.; or from Sb₂S₅ + NaOH aq.

Physical Description: Large, bright yellow, tetrahedral cryst.

Other Data: Effloresces giving brown solid surfaces. Struct. has groups of SbS₄⁽⁻⁾ tetrahedra (Sb-S 233 pm mean) and Na-coordinated octahedra with [(H₂O)₃Na(H₂O)₃Na(H₂O)₃NaS₃] arrangement: mean Na-O 239, Na-S 300 pm. Begins to lose H₂O at 108°; loses 3H₂O between 108-113°, and further 3H₂O at 125-145°

References:

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