

Polybasite - $[\text{Ag}_6\text{Sb}_2\text{S}_7][\text{Ag}_9\text{CuS}_4]$

Hardness: 2.5 - 3. Cleavage: Imperfect/fair. Soft; easily damaged. Attacked by HNO_3 which produces a sooty surface coating removable by sonication. Resists other acids. Photosensitive; may alter in strong light. Rohner reports polybasite is water soluble, but this is clearly an error. Rohmer also reports NH_3 sensitivity but (like the report of water solubility in the same reference) this is questionable.

References

Mindat: <https://www.mindat.org/min-3256.html>

Handbook of Mineralogy: <https://www.handbookofmineralogy.org/pdfs/polybasite.pdf>

Hardinger, S. (2025) Mineral Specimen Cleaning and Development for the Amateur, 339 p.

Rohner, T. (2000) Properly clean minerals online cleaning book.

www.strahlen.org/stepbystep/mineralien-reinigung2.pdf. In German.

Sinkankas, J. (1972) Gemstone & Mineral Data Book, 346 p. Winchester Press, New York.