

Lead (Native Lead) - Pb

Hardness: 1.5. Cleavage: None observed. Very soft (avoid metal tools; use wooden toothpick, bamboo splinter or plastic tools with great care). Bends easily. Often easily peeled away from matrix. Poisonous. Native lead is usually tarnished. Some cleaning protocols result in an unnaturally bright luster, but the specimen often regains a natural patina. Insoluble in water, ethanol or acetone. Readily soluble in HNO_3 and with difficulty in hot concentrated H_2SO_4 . Inert to water and other acids. Tolerates sonication (useful to remove gray coatings). Remove carbonate crust by soaking in 10% acetic acid then 1% NaOH. The EDTA procedure used to clean galena may also work for lead. Atmospheric CO_2 causes some carbonate formation on the surface so for simple rinsing use only freshly boiled distilled water or organic solvents (acetone or alcohol). Store in a sealed container over desiccant.

References

Mindat: <https://www.mindat.org/min-2358.html>

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

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

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