

Torbernite - $\text{Cu}(\text{UO}_2)_2(\text{PO}_4)_2 \cdot 12\text{H}_2\text{O}$

Hardness: 2 - 2.5. Cleavage: Perfect. Fragile; micaceous; readily cleaved. Radioactive. Rapidly attacked by acids. Stable to dithionite (Sinkankas says 'dithionate' but this is quite likely a typo). Sinkankas recommends against sonication as some crystals may be dislodged but some specimens tolerate this treatment well. Readily dehydrates to metatorbernite; these two species are visually indistinguishable and can be treated the same way.

Varieties/related species (treat same as torbernite): Metatorbernite.

References

Mindat: <https://www.mindat.org/min-3997.html>

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

DeMouthe, J. (2017) Care and Documentation of Mineral Collections, 94 p. Mineralogical Society of America, Chantilly, Virginia.

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.