

Rutile - TiO₂

Hardness: 6 - 6.5. Cleavage: Distinct/good. Broad tolerance to sonication unless cracked. Insoluble in water. Superb chemical resistance. The powdered mineral is very slightly attacked by H₂SO₄. Tolerates oxalic acid, all dithionite recipes and hot alkali/TKPP. (Weast reports soluble in alkalis but this likely refers to fused NaOH or KOH.) Insoluble in ethanol or acetone.

Varieties/related species (treat same as rutile): Sagenite

References

Mindat: <https://www.mindat.org/min-3486.html>

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

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

King, R. (1983) The care of minerals section 2: The development of minerals. Journal of the Russell Society, 1 (2), 54–77.

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

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

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

Weast, R., Ed. (1982) CRC Handbook of Chemistry and Physics, 2380 p., CRC Press, Inc., Cleveland.