

Manganese hydroxides/oxides - Various formulas

Hardness: Variable. Cleavage: Variable. Often appear as black, sooty and sometimes powdery material. Soluble in HCl or oxalic acid. Usually effervesce (oxygen gas) when treated with H₂O₂ (with or without added acid). CAUTION: Manganite reacts with HCl to form toxic chlorine gas; avoid treating manganese hydroxide/oxides with HCl. See individual species (when known) for more detail.

Varieties/related species (treat same as above): Psilomelane, wad

References

Hardinger, S. (2025) Mineral Specimen Cleaning and Development for the Amateur, 339 p.
Sinkankas, J. (1972) Gemstone & Mineral Data Book, 346 p. Winchester Press, New York.