

Franklinite - $\text{Zn}^{2+}\text{Fe}^{3+}_2\text{O}_4$

Hardness: 5.5 - 6. Cleavage: None observed. Variable sensitivity towards acids, including HCl which is commonly used to remove enclosing calcite. Inert to cold concentrated citric acid; use this acid to remove calcite. Insoluble in alkalis. Tolerates dithionite for derusting. Remove black coatings with H_2O_2 /vinegar, H_2NOH or NaHSO_3 .

References

Mindat: <https://www.mindat.org/min-1598.html>

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

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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.

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Cleveland (call this mineral ferrite).