

Lukechangite-(Ce) - $\text{Na}_3\text{Ce}_2(\text{CO}_3)_4\text{F}$

Hardness: 4.5. Cleavage: Perfect. Brittle. Likely sensitive to all acids to some extent, producing effervescence with dilute HCl. May be sensitive to alkalis.

References

Mindat: <https://www.mindat.org/min-7159.html>

Handbook of Mineralogy: www.handbookofmineralogy.org/pdfs/lukechangite-Ce.pdf

Duthaler, R. and Weiß, S. (2024) Mineral Cleaning for Collectors, 3rd Edition, 190 p. Duthaler, Switzerland.