

Kenyaite**Na₂Si₂₂O₄₁(OH)₈•6H₂O**

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Crystal Data: Monoclinic, probable. *Point Group:* n.d. As nodular concretions, commonly with chert cores.

Physical Properties: Hardness = n.d. D(meas.) = n.d. D(calc.) = [2.33]

Optical Properties: Transparent to translucent. *Color:* [White.]

Optical Class: n.d. *n* = ~1.48

Cell Data: *Space Group:* n.d. *a* = 7.79(5) *b* = 19.72(5) *c* = 7.30(5) *β* = 95°54(5)'
Z = 1

X-ray Powder Pattern: Lake Magadi, Kenya; pattern varies with interlayer Na:H₂O.
19.68 (100), 3.428 (85), 3.198 (55), 9.925 (50), 3.320 (45), 4.965 (35), 4.689 (28)

Chemistry:

	(1)	(2)
SiO ₂	83.50	84.52
TiO ₂	0.02	
Al ₂ O ₃	0.22	
Fe ₂ O ₃	0.09	
MnO	trace	
MgO	0.04	
CaO	0.11	
Na ₂ O	3.96	3.96
K ₂ O	0.04	
H ₂ O ⁺	4.90	
H ₂ O ⁻	7.10	
H ₂ O		11.52
Total	99.98	100.00

(1) Lake Magadi, Kenya. (2) Na₂Si₂₂O₄₁(OH)₈•6H₂O.

Occurrence: As concretions, with chert cores, embedded in magadiite; perhaps as a reaction product between the two (Lake Magadi, Kenya); in altered volcanic rocks (Trinity Co., California, USA).

Association: Magadiite, quartz.

Distribution: From Lake Magadi, Rift Valley, Kenya. In Niger, at Kafra. In the USA, from five km north of Trinity Lake, Trinity Co., California.

Name: For the locality in Kenya.

Type Material: National School of Mines, Paris, France; National Museum of Natural History, Washington, D.C., USA, 121336, 121337.

References: (1) Eugster, H.P. (1967) Hydrous sodium silicates from Lake Magadi, Kenya: precursors of bedded chert. *Science*, 157, 1177–1180. (2) (1968) *Amer. Mineral.*, 53, 510 (abs. ref. 1). (3) McAtee, J.L., Jr., R. House, and H.P. Eugster (1968) Magadiite from Trinity County, California. *Amer. Mineral.*, 53, 2061–2069. (4) Beneke, K. and G. Lagley (1983) Kenyaite – synthesis and properties. *Amer. Mineral.*, 68, 818–826.