

Crystal Data: Cubic. *Point Group:* $4/m\bar{3}2/m$. As crusts of interpenetrating tabular crystals, to 1 mm; in aggregates, which may be mammillary, columnar, globular, or arborescent.

Physical Properties: *Cleavage:* Perfect on {111}. *Hardness* = 2.5 *D(meas.)* = 2.004 *D(calc.)* = 2.029 Soluble in H_2O , saline taste.

Optical Properties: Transparent. *Color:* Colorless, white to gray; colorless in transmitted light. *Luster:* Vitreous.

Optical Class: Isotropic. $n = 1.369(1)$

Cell Data: *Space Group:* $Fm\bar{3}m$. $a = 8.392$ $Z = 4$

X-ray Powder Pattern: Synthetic.

4.844 (100), 2.422 (45), 2.098 (35), 4.195 (25), 2.967 (18), 1.615 (18), 2.531 (8)

Chemistry:	(1)	(2)
Si	15.58	15.77
NH_4	20.43	20.25
F	63.36	63.98
H_2O	0.30	
SO_4	0.06	
insol.	0.15	
Total	99.88	100.00

(1) Barari, India. (2) $(\text{NH}_4)_2\text{SiF}_6$.

Polymorphism & Series: Dimorphous with bararite, the lower-temperature form.

Occurrence: A volcanic sublimate, or formed from fires in burning coal seams.

Association: Sal ammoniac, bararite, sulfur, selenium.

Distribution: From Vesuvius, Campania, Italy. In the Clara mine, near Wolfach, Black Forest, Germany. At Libusín, Kladno basin, Czech Republic. In the Bararee mine, Barari, Jharia district, West Bengal, India. From Kehley's Run mine, near Shenandoah, Schuylkill Co., and at Glen Lyon, Luzerne Co., Pennsylvania, USA.

Name: From the Greek for *concealed* and *salt*, for being admixed with sal ammoniac.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 104–105. (2) Vainshtein, B.K. and M.M. Stasova (1956) Electron-diffraction investigation of cryptohalite. *Kristallografiya (Sov. Phys. Crystal.)*, 1, 311–320 (in Russian). (3) Lapham, D.M., J.H. Barnes, W.F. Downey, Jr., and R.B. Finkelman (1980) Mineralogy associated with burning anthracite deposits of eastern Pennsylvania. *Pennsylvania Geol. Surv. Min. Res. Report*, 78, 44–45. (4) (1955) *NBS Circ.* 539, 5, 5.