Mopungite $NaSb^{5+}(OH)_6$

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Crystal Data: Tetragonal. *Point Group:* $4/m$. Pseudocubic crystals, to 0.3 mm, showing {001}, {110}, and {101}; rarely acicular; as incrustations.

Physical Properties: Hardness = 3 D(meas.) = 3.21 D(calc.) = 3.264 Soluble in hot H_2O.

Optical Properties: Transparent to translucent. *Color:* Colorless to milky white.
Luster: Vitreous.
Optical Class: Uniaxial (–). $\omega = 1.614$ $\epsilon = 1.605$

Cell Data: *Space Group:* $P4_2/n$. $a = 7.994$ $c = 7.859$ Z = [4]

X-ray Powder Pattern: Mopung Hills, Nevada, USA.
4.581 (10), 3.985 (8), 1.205 (7), 1.629 (5), 1.325 (5), 1.265 (5), 1.192 (5)

Chemistry:

	(1)	(2)
Sb_2O_5	65.2	65.54
Na_2O	12.8	12.56
H_2O	[22.0]	21.90
Total	[100.0]	100.00

(1) Mopung Hills, Nevada, USA; by X-ray fluorescence, H_2O from analysis of synthetic material; recalculated to 100% after deduction of sulfur 11.1%. (2) $NaSb(OH)_6$.

Mineral Group: Stottite group.

Occurrence: An oxidation product of stibnite.

Association: Selenium, sulfur, stibiconite, sénarmontite, roméite, tripuhyite (Mopung Hills, Nevada, USA); cetineite, sénarmontite, brizziite, other antimony oxides (Cetine mine, Italy).

Distribution: At the Green prospect, Mopung Hills, Lake district, Churchill Co., Nevada, USA. From the Cetine mine, 20 km southwest of Siena, Tuscany, Italy.

Name: For the Mopung Hills, Nevada, USA, where it was first found.

Type Material: The Natural History Museum, London, England, 1984,477; National Museum of Natural History, Washington, D.C., USA, 161224.

References: (1) Williams, S.A. (1985) Mopungite, a new mineral from Nevada. Mineral. Record, 16, 73–74. (2) (1985) Amer. Mineral., 70, 1330 (abs. ref. 1).

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