Mopungite

\( \text{NaSb}^{5+}(\text{OH})_6 \)

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 \( \text{H}_2\text{O} \).

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: \( P4_2/n \). \( a = 7.994 \) \( c = 7.859 \) \( Z = [4] \)


Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{Sb}_2\text{O}_5 )</td>
<td>65.2</td>
<td>65.54</td>
</tr>
<tr>
<td>( \text{Na}_2\text{O} )</td>
<td>12.8</td>
<td>12.56</td>
</tr>
<tr>
<td>( \text{H}_2\text{O} )</td>
<td>[22.0]</td>
<td>21.90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>[100.0]</td>
<td>100.00</td>
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</tbody>
</table>

(1) Mopung Hills, Nevada, USA; by X-ray fluorescence, \( \text{H}_2\text{O} \) from analysis of synthetic material; recalculated to 100% after deduction of sulfur 11.1%. (2) \( \text{NaSb(OH)}_6 \).

Mineral Group: Stottite group.

Occurrence: An oxidation product of stibnite.

Association: Selenium, sulfur, stibiconite, sénarmontite, roméite, tripuyhyite (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.
