

Crystal Data: Monoclinic. *Point Group:* 2/m. Crystals are fibrous, to 1 cm, elongated along [001], in felted masses and irregular aggregates.

Physical Properties: *Tenacity:* Flexible. Hardness = "Soft". D(meas.) = n.d. D(calc.) = 5.23

Optical Properties: Translucent. *Color:* White. *Streak:* White. *Luster:* Silky.
Optical Class: [Biaxial.] $n = [2.13]$ (by the rule of Gladstone and Dale). $\alpha = \text{n.d.}$ $\beta = \text{n.d.}$ $\gamma = \text{n.d.}$
2V(meas.) = n.d.

Cell Data: *Space Group:* C2/c. $a = 18.076(5)$ $b = 5.920(5)$ $c = 5.083(5)$ $\beta = 96.97(1)^\circ$ $Z = 4$

X-ray Powder Pattern: Tsumeb, Namibia; shows strong preferred orientation.
2.990 (100), 2.960 (100), 5.622 (65), 3.104 (61), 2.104 (42), 3.376 (39), 1.962 (32)

Chemistry:	(1)
MoO ₃	33.76
Sb ₂ O ₃	60.99
<u>As₂O₃</u>	<u>4.95</u>
Total	99.70

(1) Tsumeb, Namibia; by electron microprobe, average of five analyses; corresponds to (Sb_{1.79}As_{0.21})_{Σ=2.00}Mo_{1.00}O₆.

Occurrence: A rare secondary mineral from an oxidized zone in a dolostone-hosted hydrothermal polymetallic ore deposit.

Association: Anglesite, wulfenite.

Distribution: From Tsumeb, Namibia.

Name: To honor Dr. Friedrich Karl *Biehl* (1887–?), mineralogist, Westfälische-Wilhelms University, Münster, Germany, who authored an early dissertation on Tsumeb minerals.

Type Material: Hamburg University, Hamburg, Germany.

References: (1) Schlüter, J., K.-H. Klaska, G. Adiwidjaja, K. Friese, and G. Gebhard (2000) Biehlite, (Sb, As)₂MoO₆, a new mineral from Tsumeb, Namibia. *Neues Jahrb. Mineral., Monatsh.*, 234-240. (2) (2001) *Amer. Mineral.*, 86, 197 (abs. ref. 1). (3) Adiwidjaja, G., K. Friese, K.-H. Klaska, J. Schlüter, and M. Czank (2000) Crystal structure and crystal chemistry of biehlite, Sb_{1.79}As_{0.21}MoO₆. *Zeitschrift für Kristall.*, 215, 529-535.