

**Meixnerite****Mg<sub>6</sub>Al<sub>2</sub>(OH)<sub>18</sub>•4H<sub>2</sub>O**

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**Crystal Data:** Hexagonal. *Point Group:*  $\bar{3} 2/m$ . Tabular crystals, to 1 mm.**Physical Properties:** *Cleavage:* {0001}, perfect. Hardness = ~2 D(meas.) = 1.9(1)  
D(calc.) = 1.95**Optical Properties:** Transparent. *Color:* Colorless.  
*Optical Class:* Uniaxial (-).  $\omega = 1.517$   $\epsilon = \text{n.d.}$ **Cell Data:** *Space Group:*  $R\bar{3}m$ .  $a = 3.0463(15)$   $c = 22.93(2)$   $Z = 3/8$ **X-ray Powder Pattern:** Ybbs-Persenberg, Austria; d's calculated. (ICDD 34-478).  
1.94 (100), 1.52 (75), 3.82 (72), 2.287 (70), 2.57 (64), 1.494 (57), 7.64 (55)**Chemistry:**

	(1)	(2)
Al <sub>2</sub> O <sub>3</sub>	15.0	17.64
Fe <sub>2</sub> O <sub>3</sub>	0.55	
MgO	36.5	41.84
H <sub>2</sub> O	[47.95]	40.52
Total	[100.00]	100.00

(1) Ybbs-Persenberg, Austria; by electron microprobe, total Fe as Fe<sub>2</sub>O<sub>3</sub>, H<sub>2</sub>O by difference.(2) Mg<sub>6</sub>Al<sub>2</sub>(OH)<sub>18</sub>•4H<sub>2</sub>O.**Occurrence:** A secondary mineral in serpentinite.**Association:** Talc, aragonite.**Distribution:** From Ybbs-Persenberg, Ispertal, Austria.**Name:** To honor Professor Heinrich Hermann Meixner (1908–1981), Austrian mineralogist, University of Salzburg, Salzburg, Austria.**Type Material:** University of Salzburg, Salzburg, Austria; University of Göttingen, Göttingen, Germany; The Natural History Museum, London, England, 1980,687; Harvard University, Cambridge, Massachusetts, USA, 117008.**References:** (1) Koritnig, S. and P. Süsse (1975) Meixnerite, Mg<sub>6</sub>Al<sub>2</sub>(OH)<sub>18</sub>•4H<sub>2</sub>O, ein neues Magnesium-Aluminium-Hydroxid-Mineral. *Tschermaks Mineral. Petrog. Mitt.*, 22, 79–87 (in German with English abs.). (2) (1976) *Amer. Mineral.*, 61, 176 (abs. ref. 1).