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Crystal Data: Orthorhombic. Point Group:  $2/m \ 2/m \ 2/m$ . Crystals are elongated along [001] and flattened {100}, with {100}, {010}, {021} and rarely {001}, to 1.5 cm; prism faces are striated parallel to [100].

**Physical Properties:** Cleavage: Probable on  $\{100\}$  and  $\{010\}$ . Hardness =  $\sim 2.5$  D(meas.) = 2.066 D(calc.) = 1.972

Optical Properties: Semitransparent. Color: Colorless, white to pale gray. Optical Class: Biaxial (–). Orientation:  $X=a;\ Y=c;\ Z=b.$   $\alpha=1.473(1)$   $\beta=1.508(1)$   $\gamma=1.528(1)$   $2V(\text{meas.})=88^\circ$ 

Cell Data: Space Group: Pbca (synthetic). a=12.540(6) b=24.327(11) c=7.480(3) Z=8

**X-ray Powder Pattern:** Ak-saĭ, Kazakhstan. 6.36 (10), 4.68 (9), 3.54 (9), 3.19 (9), 6.00 (8), 2.78 (8), 3.09 (7)

## Chemistry:

	(1)	(2)	(3)
$B_2O_3$	61.4	61.13	61.57
$R_2O_3$		0.56	
MgO	13.8	13.44	11.88
$H_2O$	23.73	23.73	26.55
insol.		0.56	
Total	98.93	99.42	100.00

(1–2) Ak-saĭ, Kazakhstan; probably admixed with preobrazhenskite. (3) MgB<sub>6</sub>O<sub>7</sub>(OH)<sub>6</sub>•2H<sub>2</sub>O.

**Occurrence:** In fine-grained halite in a salt dome.

**Association:** Kieserite, anhydrite, preobrazhenskite, boracite, ginorite, halurgite, strontioborite, metaborite, halite.

**Distribution:** From the Chelkar salt dome, Ak-saĭ Valley, Uralsk district, Kazakhstan.

Name: From the locality, Ak-saĭ ("White Glen"), Kazakhstan.

Type Material: National Museum of Natural History, Washington, D.C., USA, 160056.

References: (1) Blazko, L.P., V.V. Kondrat'eva, and Y.Y. Yarzhemskii (1962) Aksaite – a new hydrous magnesium borate. Zap. Vses. Mineral. Obshch., 91, 447–454 (in Russian). (2) (1963) Amer. Mineral., 48, 209–210 (abs. ref. 1). (3) (1963) Mineral. Abs., 16, 65–66 (abs. ref. 1). (4) Clark, J.R. and R.C. Erd (1963) The probable chemical formula of aksaite. Amer. Mineral., 48, 930–935. (5) Dal Negro, A. and L. Ungaretti (1971) The crystal structure of aksaite. Amer. Mineral., 56, 1553–1566. (6) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union. Ocean Pictures, Moscow, 22.