$Mg_2Cl(OH)_3 \cdot 3.5–4.0H_2O$ Korshunovskite

Crystal Data: Triclinic. *Point Group:* n.d. As prismatic grains, elongated, to 2 mm, in thin veinlets.

Physical Properties: Hardness = ~2 D(meas.) = 1.798(2) D(calc.) = 1.787 Slowly soluble in H_2O.

Optical Properties: Transparent. *Color:* Colorless.
Optical Class: Biaxial (-). *Orientation:* Extinction 6°–8° to elongation. $\alpha = 1.516(1)$ $\beta = 1.538(1)$ $\gamma = 1.547(1)$ 2V(meas.) = −62°

Cell Data: *Space Group:* n.d. $a = 8.64(3)$ $b = 6.25(1)$ $c = 7.42(1)$ $\alpha = 101.4(3)°$ $\beta = 103.9(1)°$ $\gamma = 72.7(6)°$ Z = 2

X-ray Powder Pattern: Korshunov deposit, Russia.
8.04 (100), 2.439 (95), 3.843 (75), 4.032 (70), 1.857 (70), 2.873 (60b), 2.703 (60)

Chemistry:

	(1)
SiO_2	0.09
Fe_2O_3	0.10
MgO	37.62
CaO	4.69
Cl	14.84
H_2O^+	27.06
H_2O^-	9.36
CO_2	8.78
$-O = Cl_2$	3.35
Total	99.19

(1) Korshunov deposit, Russia; (OH) and H_2O confirmed by IR; after deduction of magnesite and dolomite ~16%, minor magnetite, and antigorite, corresponds to $Mg_{2.00}Cl_{1.03}(OH)_3 \cdot 3.5H_2O$.

Occurrence: From a drill core taken at 770 m in an iron ore deposit, in low-temperature hydrothermal veinlets in dolomitic marble.

Association: Ekaterinite, shabynite, magnetite, antigorite, dolomite, magnesite.

Distribution: From the Korshunov iron deposit, Irkutsk region, Siberia, Russia.

Name: For the Korshunov deposit, Russia, where it was first discovered.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia.

References: (1) Malinko, S.V., A.E. Lisitsyn, S.P. Purusova, B.P. Fitsev, and T.A. Khruleva (1982) Korshunovskite $Mg_2Cl(OH)_3 \cdot nH_2O$, – a new hydrous magnesium chloride. Zap. Vses. Mineral. Obshch., 111, 324–329 (in Russian). (2) (1983) Amer. Mineral., 68, 643 (abs. ref. 1). (3) (1983) Mineral. Abs., 34, 184 (abs. ref. 1). (4) de Wolff, P.M. and L. Walter-Lévy (1953) The crystal structure of $Mg_2(OH)_3(Cl, Br) \cdot 4H_2O$. Acta Cryst., 6, 40–44.