

Maghagendorfite**NaMn²⁺(Mg, Fe³⁺, Fe²⁺)₂(PO₄)₃**

©2001-2005 Mineral Data Publishing, version 1

Crystal Data: Monoclinic. *Point Group:* 2/m. Granular, massive; as laths in hagendorfite.**Physical Properties:** *Cleavage:* [Good on {001}; poor on {110}] (by analogy to hagendorfite).
Hardness = [~4.5] D(meas.) = n.d. D(calc.) = n.d.**Optical Properties:** [Translucent.] *Color:* [Greenish black.]
Optical Class: [Biaxial.] α = n.d. β = n.d. γ = n.d. 2V(meas.) = n.d.**Cell Data:** *Space Group:* n.d. Z = n.d.**X-ray Powder Pattern:** n.d.

Chemistry:	(1)	(2)		(1)	(2)
P ₂ O ₅	44.32	42.14	Na ₂ O	6.12	7.44
Al ₂ O ₃	0.01	0.07	K ₂ O	0.00	
Fe ₂ O ₃	9.89	6.77	Li ₂ O	0.06	
FeO	8.75	22.12	F		0.57
MnO	20.42	7.46	H ₂ O ⁺	3.06	n.d.
ZnO	0.23		-O = F ₂		0.24
MgO	5.06	6.88	insol.	1.05	
CaO	0.86	2.38	Total	99.83	95.59

(1) Dyke Lode, Custer, South Dakota, USA; corresponding to Na_{0.10}(Na_{0.83}Mn_{0.10}Ca_{0.07})_{Σ=1.00}Mn_{1.00}(Mg_{0.60}Fe_{0.58}³⁺Fe_{0.57}²⁺Mn_{0.24}Li_{0.01})_{Σ=2.00}(PO₄)₃. (2) Rapid Creek, Canada; by electron microprobe, Fe³⁺:Fe²⁺ from stoichiometry; corresponding to Na_{0.82}(Na_{0.40}Fe_{0.38}²⁺Ca_{0.22})_{Σ=1.00}(Mn_{0.53}Fe_{0.47}²⁺)_{Σ=1.00}(Mg_{0.87}Fe_{0.70}²⁺Fe_{0.43}³⁺)_{Σ=2.00}(PO₄)₃.

Mineral Group: Alluaudite group.**Occurrence:** In a complex zoned granite pegmatite.**Association:** Hagendorfite (Rapid Creek, Canada).**Distribution:** From the Dyke Lode, near Custer, Custer Co., South Dakota, USA. At Rapid Creek, Yukon Territory, Canada.**Name:** As the *magnesium* analog of *hagendorfite*.**Type Material:** n.d.**References:** (1) Moore, P.B. and J. Ito (1979) Alluaudites, wyllieites, arrojadites: crystal chemistry and nomenclature. *Mineral. Mag.*, 43, 227–235. (2) (1980) *Amer. Mineral.*, 65, 810–811 (abs. ref. 1). (3) Robinson, G.W., J. Van Velthuizen, H.G. Ansell, and B.D. Sturman (1992) Mineralogy of the Rapid Creek and Big Fish River area, Yukon Territory. *Mineral. Record*, 23(4), 1–47, esp. 34–36.