

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. Crystals are acicular and elongated along [001] to 0.5 mm, and exhibiting dominant {100} with minor {010} and {001}; also as nest-like aggregates. Weak pale green to pale yellow fluorescence under medium-wave radiation.

Physical Properties: *Cleavage:* None. *Fracture:* Uneven. *Tenacity:* n.d. *Hardness:* = n.d. *D(meas.):* = n.d. *D(calc.):* = 3.106

Optical Properties: Transparent to translucent. *Color:* Colorless to pale pink. *Streak:* White. *Luster:* Vitreous.

Optical Class: Biaxial (n.d.). Positive elongation. $n = 1.636(2)$ to $1.656(2)$ *Pleochroism:* None.

Cell Data: *Space Group:* $P\bar{1}$. $a = 6.837(1)$ $b = 7.575(2)$ $c = 8.841(2)$ $\alpha = 99.91(3)^\circ$
 $\beta = 102.19^\circ$ $\gamma = 102.78(3)^\circ$ $Z = 2$

X-ray Powder Pattern: Poudrette quarry, Mont Saint-Hilaire, Québec, Canada.
8.454 (100), 3.331 (83), 2.823 (80), 2.859 (52), 7.234 (39), 3.081 (38), 2.169 (25)

Chemistry:	(1)	(2)
Na ₂ O	7.51	7.63
CaO	0.17	
MnO	31.02	34.95
FeO	0.86	
SiO ₂	46.34	44.40
S	0.39	
B ₂ O ₃	[8.73]	8.58
H ₂ O	[4.52]	4.44
Total	99.53	100.00

(1) Poudrette quarry, Mont Saint-Hilaire, Québec, Canada; average of 14 electron microprobe analyses, B and H₂O calculated and their presence confirmed by crystal structure refinement and Raman spectroscopy; corresponding to Na_{0.97}(Mn_{1.75}Fe_{0.05}Ca_{0.01})_{Σ=1.81}(Si_{3.07}S_{0.02})_{Σ=3.09}BO₉(OH)₂.

(2) NaMn₂[Si₃BO₉](OH)₂.

Occurrence: Precipitated in vugs in altered sodalite syenite by late-stage aqueous fluids, presumably highly alkaline due to the presence of natrite.

Association: Microcline, analcime, nepheline, aegirine, pyrrhotite, sodalite, eudialyte-group minerals, natron, catapleiite.

Distribution: From the Poudrette quarry, Mont Saint-Hilaire, La Vallée-du-Richelieu, Montérégie (formerly Rouville County), Québec, Canada.

Name: Honors Anthony Hosford Steede (b. 1940) in recognition of his contributions to the understanding of the mineralogy of Mont Saint-Hilaire.

Type Material: Department of Natural History, Royal Ontario Museum, Toronto, Ontario, Canada (M56489).

References: (1) Haring, M.M.M. and A.M. McDonald (2014) Steedeite, NaMn₂[Si₃BO₉](OH)₂: Characterization, crystal-structure determination, and origin. *Can. Mineral.*, 52, 47-60. (2) (2014) *Amer. Mineral.*, 99, 2442-2443 (abs. ref. 1).