

Crystal Data: Tetragonal. *Point Group:* 4/m 2/m 2/m. As plates, to 50 μm, typically in clusters to 200 μm.

Physical Properties: *Cleavage:* Perfect on {001}. *Fracture:* n.d. *Tenacity:* Brittle. Hardness = n.d. D(meas.) = 3.2(1) D(calc.) = 3.32

Optical Properties: Translucent. *Color:* Blue. *Streak:* White to light blue. *Luster:* n.d. *Optical Class:* Uniaxial (-). $\omega = 1.630(2)$ $\varepsilon = 1.590(5)$ *Pleochroism:* Strong, blue to pale blue to pink.

Cell Data: *Space Group:* P4/ncc. $a = 7.374(1)$ $c = 15.636(2)$ $Z = 4$

X-ray Powder Pattern: Wessels mine, Northern Cape Province, South Africa. 3.33 (100), 3.12 (55), 3.03 (50), 3.44 (40), 7.79 (35), 2.61 (30), 2.32 (30)

Chemistry:	(1)	(2)
SrO	24.0	24.47
CuO	18.8	18.78
SiO ₂	56.9	56.75
Total	99.7	100.00

(1) Wessels mine, Northern Cape Province, South Africa; electron microprobe analysis, corresponds to Sr_{0.98}Cu_{1.00}Si_{4.01}O₁₀. (2) SrCuSi₄O₁₀. (3) Wessels mine, Northern Cape Province, South Africa; electron microprobe analysis of crystal used for structure determination, no analysis given; corresponds to Sr_{0.90}Ba_{0.10}Cu_{1.00}Si_{4.00}O₁₀.

Polymorphism & Series: Forms a solid solution series with effenbergerite.

Mineral Group: Gillespite group.

Occurrence: In a hydrothermally-altered sedimentary manganese deposit.

Association: Hennomartinite, sugulite, pectolite, xonotlite, quartz.

Distribution: From the central-eastern ore body of the Wessels mine, Kalahari Manganese Field, Northern Cape Province, South Africa.

Name: Named for the Wessels mine, South Africa, where the first specimens were collected.

Type Material: Institute for Mineralogy and Crystallography, University of Vienna, Austria (8H/01.055#1).

References: (1) Giester, G. and B. Rieck (1996) Wesselsite, SrCu[Si₄O₁₀], a further new gillespite-group mineral from the Kalahari Manganese Field, South Africa. *Mineral. Mag.*, 60(5), 795-798. (2) Rieck, B., H. Pristacz, and G. Giester (2015) Colinowensite, BaCuSi₂O₆, a new mineral from the Kalahari Manganese Field, South Africa and new data on wesselsite, SrCuSi₄O₁₀. *Mineral. Mag.*, 79(7), 1769-1778. (3) (2016) *Amer. Mineral.*, 101, 2356 (abs. ref. 2).