

Crystal Data: Hexagonal. *Point Group:* $3m$. As tabular to barrel-shaped crystals composed of {0001}, {11 $\bar{2}$ 0}, {11 $\bar{2}$ 1}, to 1 mm; typically as nodular aggregates. May form syntactic overgrowths and intergrowths with schairerite.

Physical Properties: Hardness = n.d. D(meas.) = 2.605 D(calc.) = 2.596

Optical Properties: Transparent. *Color:* Colorless.

Optical Class: Uniaxial (+). $\omega = 1.447(2)$ $\epsilon = 1.449(2)$

Cell Data: *Space Group:* $P31m$. $a = 12.197(4)$ $c = 13.955(10)$ $Z = 3$

X-ray Powder Pattern: Searles Lake, California, USA.

2.79 (10), 3.52 (8), 3.68 (7), 2.55 (7), 2.97 (6), 1.758 (6), 3.04 (4)

Chemistry:

	(1)	(2)
SO ₄	51.2	51.28
Na	36.4	36.82
F	8.1	8.11
Cl	3.79	3.79
Total	99.49	100.00

(1) Searles Lake, California, USA; by electron microprobe. (2) Na₁₅(SO₄)₅F₄Cl.

Occurrence: In a playa lake deposit.

Association: Schairerite, gaylussite, northupite, pirssonite, tychite, trona, hanksite, calcite.

Distribution: From Searles Lake, San Bernardino Co., California, USA.

Name: Honors Dr. William Alexander Gale (1898–1985), Director of Research of the American Potash and Chemical Corporation.

Type Material: National Museum of Natural History, Washington, D.C., USA, 107385.

References: (1) Pabst, A., D.L. Sawyer, and G. Switzer (1963) Galeite and related phases in the system Na₂SO₄–NaF–NaCl. *Amer. Mineral.*, 48, 485–510. (2) Brown, F.H. and A. Pabst (1971) New data of galeite and schairerite. *Amer. Mineral.*, 56, 174–178. (3) Fanfani, L., A. Nunzi, P.F. Zanazzi, and A.R. Zanzari (1975) The crystal structure of galeite, Na₁₅(SO₄)₅F₄Cl. *Mineral. Mag.*, 40, 357–361.