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Crystal Data: Monoclinic. Point Group: 2/m. Crystals short prismatic along [001]; commonly foliated, fibrous, crystalline granular. Twinning: May twin polysynthetically under pressure.

**Physical Properties:** Fracture: Conchoidal to uneven. Hardness = 1–2 D(meas.) = 1.591-1.604 D(calc.) = 1.5895 (synthetic). Soluble in H<sub>2</sub>O; deliquescent; taste astringent, bitter.

**Optical Properties:** Semitransparent. Color: Colorless to white; colorless in transmitted light. Luster: Vitreous to dull.

Optical Class: Biaxial (+). Orientation:  $X = b; Y \land c = 9.5^{\circ}$ . Dispersion: r > v, weak.  $\alpha = 1.495$   $\beta = 1.507$   $\gamma = 1.528$   $2V(meas.) = 79^{\circ}24'$ 

Cell Data: Space Group: C2/m (synthetic). a = 9.8607(2) b = 7.1071(2) c = 6.0737(2)  $\beta = 93.758(2)^{\circ}$  Z = 2

X-ray Powder Pattern: Synthetic.

4.095 (100), 2.646 (69), 2.880 (58), 2.732 (39), 2.305 (39), 2.228 (27), 3.553 (26)

## Chemistry:

|        | (1)      | (2)     | (3)    |
|--------|----------|---------|--------|
| Mg     | 11.86    | 11.5    | 11.95  |
| Ca     |          | 0.9     |        |
| Cl     | 35.04    | 34.2    | 34.88  |
| $H_2O$ | [53.10]  | [51.4]  | 53.17  |
| $SO_3$ |          | 2.0     |        |
| Total  | [100.00] | [100.0] | 100.00 |

(1) Leopoldshall, Germany;  $H_2O$  by difference. (2) Stassfurt, Germany; by electron microprobe,  $H_2O$  by difference. (3)  $MgCl_2 \cdot 6H_2O$ .

**Occurrence:** In saline deposits; probably in part secondary, formed from carnallite.

**Association:** Carnallite, halite, kieserite.

**Distribution:** In Germany, from Stassfurt-Leopoldshall, 34 km south of Magdeburg, Saxony-Anhalt; at Vienenburg and Aschersleben, Lower Saxony. From Lake Inder, Kazakhstan.

**Name:** For Karl Gustav Bischof (1792–1870), German geologist and mineral chemist, University of Bonn, Bonn, Germany.

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