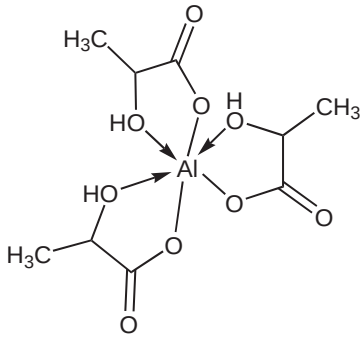
348. Aluminum Lactate. [18917-91-4] Tris[2-(hydroxy-κO)propanoato-κO]aluminum; $Al(lact)_3$. $C_9H_{15}AlO_9$; mol wt 294.19. C 36.74%, H 5.14%, Al 9.17%, O 48.95%. Prepn from lactic acid and aluminum isopropoxide or aluminum chloride: A. K. Rai *et al., J. Prakt. Chem.* **20,** 105 (1963); from lactic acid and aluminum foil: R. W. Jones, J. E. Cluskey, *Cereal Chem.* **40,** 589 (1963). Partition coefficients: A. Tapparo, M. Perazzolo, *Int. J. Environ. Anal. Chem.* **36,** 13 (1989). Molecular structure: G. G. Bombi *et al., Inorg. Chim. Acta* **171,** 79 (1990). Stability and NMR spectra: B. Corain *et al., J. Chem. Soc. Dalton Trans.* **1992,** 169. Optical rotation isotherms: I. G. Bratu *et al., COFrRoCA 2002, Actes Colloq. Fr.-Roum. Chim Appl.* **2,** 157 (2002). Reactant in sol-gel synthesis of aluminophosphate glass: L. Zhang *et al., Chem. Mater.* **15,** 2702 (2003). Inhibition of the biological effects of silica quartz: R. Bégin *et al., Exp. Lung Res.* **10,** 385 (1986); R. Duffin *et al., Toxicol. Appl. Pharmacol.* **176,** 10 (2001). Clinical evaluation as antiseptic throat spray: W. Klingbeil, *Fortschr. Med.* **100,** 146 (1982); in dental hypersensitivity: Y. Higuchi *et al., J. Clin. Dent.* **7,** 9 (1996).



White powder. $[\alpha]_{366}^{20}$ +48.31°; $[\alpha]_{436}^{20}$ +33.37°; $[\alpha]_{578}^{20}$ +10.20° (c= 0.1 M). $[\alpha]_{366}^{25}$ +48.40°; $[\alpha]_{436}^{25}$ +31.36°; $[\alpha]_{578}^{25}$ +10.22° (c = 0.1 M). Partition coefficient (*n*-octanol/water): 0.0037-0.0127. Soly in water (25°): 0.70 ±0.01 mol dm^{-3}. pH of saturated soln: 2.9.

USE: As a reagent in biological activity studies of aluminum; in sol-gel processing.

THERAP CAT: Antiseptic.