



>>Entry Name: Potassium formate

Synonym(s): Formic acid, potassium salt, 8Cl. Methanoic acid, potassium salt

CAS Registry Number: 590-29-4
K(OOCH)

Molecular Formula: CHKO_2

Molecular Weight: 84.116

Accurate Mass: 83.961362

Percentage Composition: C 14.28%; H 1.20%; K 46.48%; O 38.04%

Source/Synthesis: Synth. by dissolving K_2CO_3 in aq. formic acid

Use/Importance: Commercially available

Physical Description: Deliquescent colourless orthorhombic cryst. Dec. on heating forming $\text{K}_2\text{C}_2\text{O}_4$ as intermed. and K_2CO_3 as final product

Melting Point: Mp 165-168°

Solubility: V. sol. H_2O (331 g per 100 cm^3 at 18°; 657 g per 100 cm^3 at 80°); sol. EtOH; insol. Et_2O

Hazard & Toxicity: Irritant

Aldrich: 29445-4

Fluka: 60246

Sigma: F0760

References:

Harvey, K.B. *et al.*, *Can. J. Chem.*, 1963, **41**, 1181, (*ir*)

Braghetti, M. *et al.*, *Ric. Sci.*, 1969, **39**, 576, (*thermodyn*)

Baraldi, P., *Spectrochim. Acta A*, 1979, **35**, 1003, (*ir, thermal dec*)

Bats, J.W. *et al.*, *Acta Cryst. B*, 1980, **36**, 1940, (*cryst struct*)

Mentzen, B.F. *et al.*, *Inorg. Chim. Acta*, 1980, **43**, 237, (*cryst struct*)

Sigma-Aldrich Library of Chemical Safety Data, 1988, **2**, 1736A, (*haz*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PLG750