



>>Entry Name: Potassium acetate

ENTRY UNDER REVIEW

Synonym(s): Acetic acid, potassium salt, 8CI. Ethanoic acid, potassium salt. FEMA 2920

CAS Registry Number: 127-08-2

KOAc

Molecular Formula: $C_2H_3KO_2$

Molecular Weight: 98.143

Accurate Mass: 97.977012

Percentage Composition: C 24.48%; H 3.08%; K 39.84%; O 32.60%

Source/Synthesis: Synth. by neutralisation of aq. HOAc with KOH or K_2CO_3

Use/Importance: Commercially available. Catalyst, esp. for polym., esterification and gasification processes

Physical Description: White monoclinic powder; deliquescent. Converts to a second monoclinic modification at 76° and undergoes a monoclinic to orthorhombic transition at 140°. Dec. on heating forming $K_2C_2O_4$ as intermed. and K_2CO_3 as final prod.

Melting Point: Mp 292°

Solubility: V. sol. H_2O (253 g per 100 cm³ at 20°; 492 g per 100 cm³ at 62°), MeOH (24 g per 100 cm³ at 15°), EtOH; insol. Et_2O , Me_2CO

Other Data: $\Delta H_f -725 \text{ kJ mol}^{-1}$

Aldrich: 25578-5

Fluka: 60033

Sigma: P5708

References:

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Hatibarua, J. *et al.*, *Acta Cryst. B*, 1972, **28**, 3100, (*struct, polymorphs*)

Bloor, E.G. *et al.*, *Can. J. Chem.*, 1972, **50**, 3926, (*K-39 nmr*)

Baraldi, P., *Spectrochim. Acta A*, 1982, **38**, 51, (*ir, thermal dec*)

Jenkins, J.E. *et al.*, *J. Phys. Chem. Solids*, 1983, **44**, 565, (*polymorphs, Raman*)

Hofman, A. *et al.*, *Makromol. Chem.*, 1984, **185**, 91, (*use*)

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