



Chemistry for Safer, Sustainable Life

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Potassium formate Data Sheet

Catalog sizes	100g , Listed as 100g Potassium formate, 100FO14 500g , Listed as 500g Potassium formate, 100FO14 1kg , Listed as 1kg Potassium formate, 100FO14
Category	Acetate and formate Salts
Product specification	Granular white powder <ul style="list-style-type: none">• Product ID : FO14• CAS : 590-29-4• Molecular formula : KOOCH• Molecular mass : 84.12g/mol• Mp : 167-168°C• Purity : 98%+• Solubility : water soluble (3.3-3.5kg/L)
Product description	<p>Potassium formate (HCOOK) is a white, hygroscopic, readily biodegradable, and environmentally safe salt. When compared with traditional fluoride, chloride, bromide, sulfate and nitrate salts, HCOOK offers high solubility (3.3g/mL water), high density, alkaline pH (7.0-8.5 @ 25°C, 1 M in H₂O), lower crystallization temperature, viscosity lower than LiBr, low latent heat of absorption, less corrosive than chloride-based salts, and negligible vapor pressure. Because of such versatile properties, HCOOK is useful as a</p> <ul style="list-style-type: none">• trimerization catalyst used for isocyanurate (polyurethane) production• regenerant for cation exchange water softeners• eco-friendly and cost-effective electrolyte (wide potential window of -2.5 to 1.5 V vs. Ag/AgCl)• deicing agent (lowers the freezing point of water to -51°C at a concentration of 50% brine which achieves an ice melting speed of about 30-50 sec vs. 3-10 min for rock salt). <p>Potassium formate is also useful in molten state because of its relatively low melting point of 333°F (168°C) and excellent thermal stability around the melting point. In heat transfer or storage applications, HCOOK is less corrosive to the metals and materials used in heat transfer- and heat-storage equipment.</p>