



Chemistry for Safer, Sustainable Life

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## Potassium formate Data Sheet

<b>Catalog sizes</b>	<b>100g</b> , Listed as 100g Potassium formate, 100FO14 <b>500g</b> , Listed as 500g Potassium formate, 100FO14 <b>1kg</b> , Listed as 1kg Potassium formate, 100FO14
<b>Category</b>	Acetate and formate Salts
<b>Product specification</b>	Granular white powder <ul style="list-style-type: none"><li>• Product ID : FO14</li><li>• CAS : 590-29-4</li><li>• Molecular formula : KOOCH</li><li>• Molecular mass : 84.12g/mol</li><li>• Mp : 167-168°C</li><li>• Purity : 98%+</li><li>• Solubility : water soluble (3.3-3.5kg/L)</li></ul>
<b>Product description</b>	<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 H<sub>2</sub>O), 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"><li>• trimerization catalyst used for isocyanurate (polyurethane) production</li><li>• regenerant for cation exchange water softeners</li><li>• eco-friendly and cost-effective electrolyte (wide potential window of -2.5 to 1.5 V vs. Ag/AgCl)</li><li>• 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).</li></ul> <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>