

Product Bulletin

Product Name	ZELEC[®] NK								
Chemical Description	Neutralized alcohol phosphate								
Applications	<p>ZELEC NK is an effective non-durable antistatic agent for use in textiles, plastics and films. It is dispersible in aqueous systems, but is preferred in solvent systems.</p> <p>ZELEC NK can be formulated with a variety of organic solvents and oils and surfactants to make useful water emulsifiable concentrates.</p>								
Typical Properties	<p>Appearance Viscous Yellow Paste</p> <p>Density, g/ml (lbs/U.S. gal) at 25°C..... 1.05 (8.8)</p> <p>Actives, %..... 100</p> <p>Flash Point (PMCC), °C (°F)>94 (>201)</p> <p>pH, 10% aqueous at 25°C..... 7.0 - 7.5</p> <p>Melting Point, °C (°F)..... 50 (122)</p> <p>Solubility at 25°C (77°F):</p> <table> <tr> <td>Isopropanol</td><td>Soluble to 20%</td></tr> <tr> <td>Hydrocarbons.....</td><td>Soluble to 20%</td></tr> <tr> <td>Water</td><td>Dispersible to 5%</td></tr> <tr> <td>Mineral Oil.....</td><td>Soluble</td></tr> </table>	Isopropanol	Soluble to 20%	Hydrocarbons.....	Soluble to 20%	Water	Dispersible to 5%	Mineral Oil.....	Soluble
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Usage rates	<p>ZELEC NK is dispersible at pH 4 - 10. Higher pH's have poor dispersability and lower pH dispersions are unstable and will separate. Dispersions are milky white at all temperatures up to the boil. Dispersions are easily prepared by dissolving the product in a small quantity of water at 60 - 80°C (140 - 180°F) then extending it to the proper concentration with warm or cold water using mechanical or manual stirring.</p>								
Toxicity	<p>ZELEC NK is practically non-toxic orally (LD₅₀, rat> 6000 mg/kg). The product causes severe skin irritation and is corrosive to eyes.</p>								
Storage & Handling	<p>Normal safety precautions (i.e. gloves and safety goggles) should be employed when handling. ZELEC NK. Contact with the eyes and skin should be avoided. ZELEC agents should be stored in a cool, dry place in closed containers. Heating to 50°C (122°F) will fluidize the product.</p> <p>Standard Packaging: ZELEC NK is available in bulk and 55 gallon drums (net weight 204 kg/450 lbs).</p>								
Clearances	<p>All components of ZELEC NK are listed in the following countries: United States (TSCA), Canada (DSL), Australia (AICS) Korea (ECL) and China (IECSC). Composition is a trade secret.</p> <p>ZELEC[®] is a registered trademark of Stepan Company.</p>								



Surface Tensions of Aqueous ZELEC NK Solutions

Surface Tension, Dynes/cm
Deionized water, at 25°C (77°F)

<u>Weight %</u>	<u>ZELEC NK</u>
1.0	24.0
0.5	24.0
0.1	25.2
0.05	26.5
0.01	35.0
0.005	35.5
0.001	51.9
Control	72.0

Stable Organic Solutions of ZELEC NK

Formulations

<u>Ingredients</u>	<u>Formulation 1</u>	<u>Formulation 2</u>
ZELEC NK	28	8
Oleyl Alcohol	7	6
Mineral Oil	65	43
Lard Oil	--	43

Additional Safety Information

A Material Safety Data Sheet is available upon request.

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