

# ZACLON LLC

## ZACSIL® MS--POTASSIUM METASILICATE

### *A Highly Soluble, Highly Concentrated Silica Solution*

**Zaclon LLC Zacsil MS, Potassium Metasilicate Solution** is a highly soluble form of silica, in the form of an alkaline “water glass” or silicate solution. The potassium counter-ion provides much higher levels of silica solubility than the analogous sodium salt, and has other benefits for high clarity or high solids formulations.

**Potassium Metasilicate Solution** is a very high solids liquid product, with the same level of solids as Sodium Metasilicate Pentahydrate powder.

**Potassium Metasilicate Solution** will dissolve more rapidly in water than Sodium Metasilicate Pentahydrate, giving formulations easier rinsing properties as well as simplifying manufacture--this solution can be metered into a formulation directly from bulk or drum storage.

**Potassium Metasilicate Solution** will allow formulation of clearer solutions than the sodium analogue, especially when combined with other potassium builders. Many surfactant systems tolerate potassium systems better, possibly reducing the need for hydrotropes and coupling agents. This clarity, along with the high solubility of this form of silicate, allows formulators to increase the solids loading in a product without sacrificing appearance or stability. Finally, potassium salts do not effloresce, allowing formulations to leave some residue without appearance of “bloom”, particularly on masonry surfaces.

**Potassium Metasilicate Solution** will provide a less expensive form of soluble silica than the Sodium Metasilicate Pentahydrate due to the high level of active ingredient. For example, at an approximate selling price of \$0.45/lb., the anhydrous silica cost is essentially the same per pound of silica as a Sodium Metasilicate Pentahydrate, at \$0.22/lb. selling price.

PHYSICAL PROPERTIES*	POTASSIUM METASILICATE SOLUTION
Weight % SiO <sub>2</sub>	30%
Weight % K <sub>2</sub> O (alkalinity)	30%
Weight Ratio (SiO <sub>2</sub> /K <sub>2</sub> O)	1.0
Density	1.706 g/cc
Viscosity (cPs) at 65 °F	350 cPs

\*These properties reflect typical expected values, and do not represent guaranteed specifications.

**For more information, please contact ZACLON LLC Customer Service at (800)356-7327 or [krosati@zaclon.com](mailto:krosati@zaclon.com) OR our website, [www.zaclon.com](http://www.zaclon.com)**

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