

PERFORMANCE  
CHEMICALS  
DIVISION



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Phone: 886-2-2383-0515

PQ Corporation is a leading producer of silicate, zeolite, and other performance materials serving the detergent, pulp and paper, chemical, petroleum, catalyst, water treatment, construction, and beverage markets. It is a global enterprise, operating in 19 countries on five continents, and along with its chemical businesses, includes Potters Industries, a wholly owned subsidiary, which is a leading producer of engineered glass materials serving the highway safety, polymer additive, metal finishing, and conductive particle markets.

Report 24

# AgSil® Potassium Silicate: Soluble Silicate for Agriculture

**AgSil® potassium silicate offers growers these performance benefits in many agricultural applications:**

- Provides resistance to mineral stress.
- Decreases climate stress.
- Improves strength.
- Increases growth and yield.

AgSil® potassium silicate helps plants to resist toxicity from phosphorous, manganese, aluminum, and iron, and increases tolerance to salt<sup>1</sup>. AgSil® potassium silicate also aids in resistance to drought by reducing water loss, and in some cases it may increase growth and yield<sup>1-5</sup>.

Application of AgSil® potassium silicate improves leaf erectness, reduces susceptibility to lodging in grasses, and improves photosynthesis efficiency<sup>1</sup>. For turf this can result in faster, healthier greens and athletic fields. Row crops, vine crops, ornamentals, and hydroponically grown plants can all benefit from potassium silicate supplementation.

### AgSil® potassium silicate provides a soluble source of silicate and supplementary potassium for plants.

Product	%K <sub>2</sub> O	%SiO <sub>2</sub>	%H <sub>2</sub> O	Description
AgSil 21	12.7	26.5	60.9	liquid, pH 11.7
AgSil 25	8.3	20.8	70.9	liquid, pH 11.3
AgSil 16H	32.4	52.8	14.8	hydrous powder

Hydrous AgSil® potassium silicate powders can be used in dry mix applications for land spreading. They may also be dissolved in other formulations (subject to compatibility) where additional water is not desired.

AgSil® is a trademark of PQ Corporation

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Information herein is accurate to the best of our knowledge. Suggestions are made without warranty or guarantee of results. Before using, user should determine the suitability of the product for his intended use and user assumes the risk and liability in connection therewith. We do not suggest violation of any existing patents or give permission to practice any patented invention without a license.

**Approximate AgSil® potassium silicate applications levels**

Nutrient Solution — 100 ppm SiO<sub>2</sub> (w/w)

	AgSil 21	AgSil 25
lb. (fl. oz.) in 100 gal. H <sub>2</sub> O	0.32 lb. (3.5 oz.)	0.40 lb. (4.9 oz.)
ppm K <sub>2</sub> O	48	40

Foliar Spray — 1,000 ppm SiO<sub>2</sub> (w/w)

	AgSil 21	AgSil 25
lb. (fl. oz.) in 100 gal. H <sub>2</sub> O	3.2 lbs. (35 oz.)	4.0 lbs. (49 oz.)
ppm K <sub>2</sub> O	485	400

Warning: Call for information on tank-mixing compatibility.

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For more information on PQ Corporation and our complete line of agricultural products, visit us at [www.pqcorp.com](http://www.pqcorp.com).

Or contact us at:

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