

Sulfate of Potash (SOP) Solubility Table

Water Temperature	10°C/50° F	20°C/68°F	25°C/77°F
Grams of SOP / litre water	92	111	120
Lb. of SOP / gal water	0.7	0.9	1.0
Lb. of K ₂ O / gal of water	0.35	0.45	0.50

Note: For best results GSL recommends using no more than 0.7 lbs / gallon water (92 grams / litre water)

Factors Affecting Solubility:

Water Temperature – The higher the water temperature, the higher the solubility of SOP. Solutions will tend to salt out as water temperature decreases.

Water pH– Solubility increases as pH decreases. Solution pH is primarily influenced by pH of the water. Adjust water pH prior to dissolving solids. SOP solutions can have a pH as high as 8.5 when dissolved in pH-neutral water. Solubility will be substantially enhanced if water pH is decreased to a pH of 4.0.

Agitation– Speed of dissolution increases with agitation. SOP should be slowly mixed into turbulent water and not allowed to collect on the bottom of the mixing tank. Mechanical agitation at 100 rpm results in dissolution in about 7 minutes; at 500 rpm, time of dissolution is reduced to 3 minutes. Dissolution is incomplete with no agitation.

Insolubles– This product contains inert clay and silica particles, which makes a solution cloudy in appearance. Insoluble particles will settle after several hours, resulting in a clear solution.

Incompatibility– SOP solutions are incompatible with calcium; calcium sulfate precipitates will form. Certain forms of some micro-nutrients may also form solids in solutions.



**Great Salt Lake
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