



MaxxGel S[®]

Thickener for Hand Sanitizer – INCI: Ammonium Polyacryloyldimethyl Taurate

MaxxGel S is a cross-linked Polyacryloyldimethyl Taurate powder used to provide thickening, stabilization properties for clear hand sanitizing gels. This polymer is obtained by precipitation polymerization in t-butanol. **MaxxGel S** provides excellent clarity in the final product containing up to 70% alcohol. Average usage will be between 0.5 – 0.7% depending on the viscosity target and the water concentration of the formula.

Typical Properties

Appearance	White Powder
Total Solids, %	92-100
Viscosity, 1% (RVT - 20 rpm)	6000 – 14000 cps
pH, 1% Solution	4-6
Gel Clarity, %	≥ 90
Powder Shelf life	24 months

Sanitizing gels contains alcohol, water and rheology modifier as major ingredients. The effectiveness of these types of formulation depends on the amount and the type of alcohol used. The most common alcohols used are Ethanol and Isopropanol. These alcohols kill organisms by denaturing their proteins and dissolving their lipids; they are effective against most bacteria, fungi and many virus. *Sample formulations are shown on the following page. The ultimate performance/effectiveness of these types of formulations depends on the amount, quality and the types of alcohols/additives used.*

Let MCTRON Technologies raise your expectations.

MCTRON Technologies, LLC Technical Support Team is available to provide assistance with the formulation of all our products to optimally suit your specific needs.

MCTRON Technologies LLC Guarantee

If any product is defective in workmanship or materials, MCTRON Technologies, LLC will replace the product, or refund the full purchase price. This warranty is in place of all other warrants, expressed or implied, and all implied warrants of a product for an intended use shall be solely up to the user. MCTRON Technologies, LLC assumes no liability for consequential damages. Its liability shall in no event exceed the purchase price of materials supplied by it.



Ethanol Formula

Ingredient	% (wt./wt.)
Water Deionized Water	34.00 - 24.30
Absolute Ethanol Alcohol	60.00 - 70.00
MaxxGel S	1.00 - 0.70
Glycerin	5.00 - 5.00

Properties

Appearance	Crystal Clear Gel
pH	5.7 - 6.2/6.0 - 6.5
Viscosity (cP)*	10000 – 13500/7500 - 11000
Transmittance (@ 420nm, %)	>95/>95
<i>*Brookfield RVT sp.5, 20rpm</i>	

Isopropanol Formula

Ingredient	% (wt./wt.)
Water Deionized Water	32.80
Propan – 2 –ol Isopropyl Alcohol	65.00
MaxxGel S	0.70
Glycerin	1.5

Properties

Appearance	Crystal Clear Gel
pH	5.8 – 6.3
Viscosity (cP)*	5000 - 7000
Transmittance (@ 420nm, %)	>95
<i>*Brookfield RVT sp.4, 20rpm</i>	

Procedure

Disperse **MaxxGel S** in water or in the mix (water + alcohol) and mix 20 minutes until the mixture is a clear homogeneous gel.

Add glycerin and mix until uniform.

Note: The order of addition (water + polymer + alcohol + glycerin or water + alcohol + polymer + glycerin) does not impact the properties of the formula