

# 4282-065

**Key Words:** Aciclovir, Antiviral Drug, Industrial Produced Suspension  
**JRS Products:** VIVAPUR® MCG 591P

## Acyclovir Suspension

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### Summary

Acyclovir is an antiviral drug that is active against the herpes virus. The bioavailability is relatively low with only 15 – 30 %. Typical dosage is between 30 and 800 mg. It is poorly soluble in water and needs to be stabilized in a suspension.

**VIVAPUR® MCG 591P:** Due to its high final viscosity, **VIVAPUR® MCG 591P** is highly suitable for industrial-produced suspensions. The physical stability of the suspension is due to the 3D-network and the high yield point.

### Formulation

	Active content [mg]	g/batch	Contribution [%]
Acyclovir	50.0	5.0	5.0
<b>VIVAPUR MCG 591P</b>		2.0	2.0
Methylparaben		0.1	0.1
Propylparaben		0.2	0.2
Sorbitol		15	15
Flavor		q.s.	q.s.
Citric acid		0.1	0.1
Water		92.7	92.7
Total		100.0	100.0

### Procedure

#### Blending:

Add **VIVAPUR MCG 591P** to 2/3 of the water and stir it with low shear forces until no lumps are visible. Afterwards activate the MCG for minimum 15 minutes with high shear forces. Let the dispersion stay for at least 15 minutes again. Add Acyclovir (non-ionic) with low shear forces and afterwards add potassium sorbate and citric acid (ionic) also with low shear forces. Add the remaining water.

#### Equipment:

Impeller: Ultra Turrax