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Key Words: Ibuprofen, Waterinsoluble API, Industrial Produced Suspension
JRS Products: VIVAPUR® MCG 591P

Ibuprofen Suspension (100 mg/5 mL)

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Summary

Ibuprofen is a non-steroidal anti-inflammatory drug (NSAID), used as a pain-reliever and antipyretic (fever-reducing) agent. Its unpleasant taste can be masked by sugar and/or flavors. The oral suspension form of ibuprofen is ideally suited for children or older patients with difficulty swallowing.

Due to its high final viscosity **VIVAPUR® MCG 591P** is highly suitable for industrial manufacture of suspensions. As a suspending agent, MCG imparts high viscosity and improved physical stability to the suspension, helping to prevent sedimentation, aggregation, or caking of the API.

Formulation

	Active content [mg]	g/batch	Contribution [%]
Ibuprofen, micronized	100.0	20.0	2.0
VIVAPUR® MCG 591P		15.0	1.5
Sorbitol		260.0	26.0
Parabens		1.2	0.1
Flavor		q.s.	
Propylenglycol		25.0	2.5
Water		678.8	67.9
Total		1,000.0	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. Let the suspension stay for 10 min. Afterwards, stir the suspension for 15 minutes with high shear forces. Let the suspension stay for 10 min again. Add Ibuprofen, Sorbitol, flavors and Propylenglycole (non ionic) with low shear forces and afterwards add Parabenes (ionic) also with low shear forces. Add the remaining part of water.

Equipment:

Impeller: Ultra Turrax