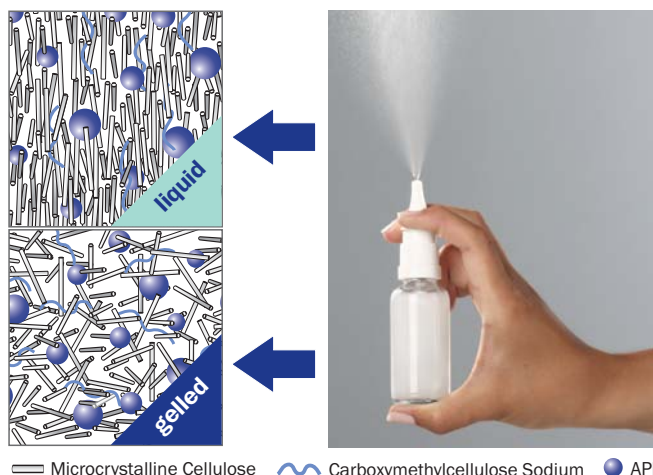


VIVAPUR® MCG – a Powerful Stabilizer for Nasal Sprays

Dispersible cellulose is a multifunctional and commonly used stabilizer for nasal sprays containing APIs such as Fluticasone, Budesonide, Beclometasone, Triamcinolone Acetonide or Oxymetazoline Hydrochloride.

The **VIVAPUR® MCG** gel network keeps drug particles suspended in the main reservoir of delivery device. During pumping, the gel becomes fluid in the delivery device and enables an eased spraying and efficient and standardized atomization. After agitation, the fluid regains its viscosity. Dripping from the nose or outflow into the throat area are prevented and the retention time of the API in the nasal cavity is prolonged.



— Microcrystalline Cellulose ~ Carboxymethylcellulose Sodium ● API

VIVAPUR® MCG forms a three-dimensional coherent network of insoluble cellulose fibrils. All particles are kept homogeneously within the gelled network. During agitation in the delivery device, the fibrils arrange themselves in the direction of the movement. The network loosens up and the viscosity decreases.

Characteristics

VIVAPUR® MCG is a synergistic, co-processed composite consisting of microcrystalline cellulose (MCC) and sodium carboxymethylcellulose (Na-CMC).

VIVAPUR® MCG is a free flowing powder. After activation in water, it forms a thixotropic and shear-thinning dispersion allowing an outstanding sprayability of nasal, oral, or topical sprays.

Benefits:

- Compatible with a wide range of ingredients commonly used for nasal sprays such as wetting agents, nonionic surfactants or preservatives.
- Withstands sterilization and long-term heating, can be dispersed in hot and cold water and is stable in a wide pH range (3.8 - 10).
- Halal; Kosher; GMO/TSE/BSE free; non-animal origin; cGMP production standard.
- Odorless and tasteless, smooth but not slimy.
- Conforms with Ph.Eur., NF.

Further Applications

Besides spray applications, **VIVAPUR® MCG** is used as a suspending agent, stabilizer, emulsifier, opacifier, and thickener for oral suspensions, veterinary drenches, reconstitutable powders, gels, creams, and lotions.

Available Grades

VIVAPUR® MCG 581, 591, 611 and 811 P.

Would you like to receive a sample or information?

Please visit www.jrspharma.com

Formulation – Mometasone Nasal Spray

Ingredients	[g/ 100 mL]
Mometasone Furoate Hydrate	0.05
VIVAPUR® MCG 811 P	1.80
Water (Deionized) for MCG Activation	80.0
Polysorbate 80	0.01
Benzalkonium Chloride	0.02
Citric Acid Monohydrate	0.20
Sodium Citrate	0.28
Glycerol	2.10
Water (Deionized) for Volume Adjustment	q.s.

Disclaimer:

The information provided in this brochure is based on thorough research and is believed to be completely reliable. Application suggestions are given to assist our customers, but are for guidance only. Circumstances in which our material is used vary and are beyond our control. Therefore, we cannot assume any responsibility for risks or liabilities, which may result from the use of this technical advice.