

## Starting point formulation – Hypochlorous acid spray – HOCl soothing spray

A gentle hypochlorous acid formula that adapts to your routine – used as a refreshing mist or a calming gel for sensitive skin – formulated with **PURABYK-R 5500** to create a soft gel structure that prevents the sprayed gel from running off the skin. It helps reduce visible redness, relieves dry and itchy skin, calms scalp discomfort, and provides soothing refreshment after sun exposure. It supports a clearer-looking complexion – alcohol-free and gentle enough for daily use.

### Formulation

Position	Component	INCI	Supplier	Function	Dosage (%)
A	Hypochlorous Acid Solution	Aqua, Hypochlorous Acid (0,03%)	Various	Carrier/active	96.00
	PURABYK-R 5500	Sodium Magnesium Fluorosilicate (Nano), Tetrasodium Pyrophosphate	BYK	Rheology modifier	3.50
B	Ortho-phosphoric acid (21 % PA)	Phosphoric Acid (21 % PA)	Various	pH adjuster	0.50
<b>Total</b>					<b>100.00</b>

**Note:** When handling HOCl, contact with metal including stainless steel needs to be avoided, for stirring non-metal (PTFE or glas) stirrer are recommended.

#### Instructions (manufacturing procedure)

- Add PURABYK-R 5500 to the hypochlorous acid solution while mixing at high agitation (create a vortex) and continue stirring until a homogeneous, lump-free solution is obtained.
- Adjust the pH-value to 5.0 using phosphoric acid – note that gel formation will initiate as the pH decreases.
- Fill into spray bottles or gel dispenser.

#### Characteristic data

- Appearance: translucent, viscous gel.
- Storage stability: 3 months at 40 °C.

**PURABYK-R 5500** is a rheology additive based on synthetic phyllosilicate for aqueous systems to provide thixotropic stabilization in personal care applications.



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