

Starting point formulation – Sprayable emulsion – skinergy

A sprayable, high-performance O/W emulsion that delivers immediate and long-lasting hydration while strengthening the skin barrier. **LAPONITE-XLG** ensures a stable formulation with a pleasantly light texture and excellent sprayability.

Formulation

Position	Component	INCI	Supplier	Function	Dosage (%)
A	Demineralized water	Aqua		Carrier	80.58
	Ectoin natural	Ectoin	Bitop AG	Active ingredient	0.30
	Genecare OSMS BA	Betain	Danisco	Active ingredient	1.00
	Pentavitin	Saccharide Isomerate	DSM-firmenich	Moisturizing agent	0.50
	Ethylene Diamine Tetraacetic Acid	Tetrasodium EDTA	Carl Roth	Chelating agent	0.05
	Sensocel stab.026	Microcrystalline Cellulose, Cellulose Gum	CFF	Thickener/stabilizer	0.60
	LAPONITE-XLG	Lithium Magnesium Sodium Silicate (nano)	BYK	Rheological additive	0.50
B	TegoCare PBS-6	Polyglyceryl-6 Stearate, Polyglyceryl-6 Behenate	Evonik	Emulsifier O/W	1.50
	TegoCare 450	Polyglyceryl-3 Methylglucose Distearate	Evonik	Emulsifier O/W	3.00
	Sea Buckthorn Fruit Oil	Hippophae Rhamnoides (Sea Buckthorn) Fruit Oil, Rosmarinus Officinalis Leaf Extract	Gustav Heess	Natural oil/emollient	1.50
	Cetiol 868	Ethylhexyl Stearate	BASF	Emollient	3.00
	Cetiol OE	Dicaprylyl Ether	BASF	Emollient	5.00
C	SymSave 5E	Pentylene Glycol, Ethylhexylglycerin, Hydroxyacetophenone, Aqua	Symrise	Multifunctional	0.80
	Aqua Vibes (SY114462)	Fragrance	Symrise	Parfum	0.20
	Citric Acid Solution 10 %	Aqua, Citric Acid	Speiko	pH-adjuster	0.47
D	Phosphat pH-buffer (1 mol/L) pH:5.91	Disodium Phosphate, Sodium Dihydrogen Phosphate, Aqua	selfmade (Carl Roth/VWR)	pH-buffer	1.00
Total					100.00

Instructions (manufacturing procedure)

- **Phase A:** Add water into an beaker. Add the required amount of Tetrasodium EDTA to the water and stir until it is completely dissolved.
- While stirring add LAPONITE-XLG and Sensocel. Dissolve it as clearly as possible (30 min).
- Add Ectoin while stirring and dissolve it completely.
- Add Genecare while stirring and dissolve it completely.
- Add Pentavitin while stirring and dissolve it completely.
- Heat up to 70 °C with moderate stirring.
- Add all ingredients off **phase B** into another beaker and heat up to 75–80 °C.
- Transfer **phase B** slowly into **phase A** while stirring (wingstirrer 500 rpm) and stir for 2 min longer to built up an homogenous pre-emulsion.
- Homogenize with ultra turrax (7000 rpm/1.5 min).
- Cool down to < 40 °C while sirring (wingstirrer 500 rpm).
- Add the materials off phase C one after the other while stirring and stir until you get a homogenous emulsion (wingstirrer 500 rpm).
- Adjust the pH-value to 6.0.
- Add the Phosphat pH-buffer sytem to stabilize the pH-value and stir well.

Characteristic data

- Appearance: sprayable pale yellow O/W emulsion.
- Storage stability: 3 months at 40 °C.

LAPONITE-XLG delivers unique thixotropic properties, enhances the skin feel of personal care products, and creates a light, non-sticky texture. In addition, the additive increases the stability of emulsions and prevents the settling of particles, pigments, and solid active ingredients



Your local
contact

BYK-Chemie GmbH
Abelstraße 45
46483 Wesel
Germany
Tel +49 281 670-0

info@byk.com
www.byk.com

ANTI-TERRA®, AQUACER®, AQUAMAT®, AQUATIX®, BENTOLITE®, BYK®, BYK-AQUAGEL®, BYK-DYNWET®, BYK-MAX®, BYK-SILCLEAN®, BYKANOL®, BYKCARE®, BYKETOL®, BYKIET®, BYKONITE®, BYKOPLAST®, BYKUMEN®, CARBOBYK®, CERACOL®, CERAFAK®, CERAFLOUR®, CERAMAT®, CERATIX®, CLAYTONE®, CLOISITE®, DISPERBYK®, DISPERPLAST®, FULACOLOR®, FULCAT®, GARAMITE®, GELWHITE®, HORDAMER®, LACTIMON®, LAPONITE®, NANOBYYK®, OPTIBENT®, OPTIGEL®, PURABYK®, RECYCLOBYK®, RHEOBYK®, SCONA®, SILBYK®, TIXOGEL® and VISCOBYK® are registered trademarks of the BYK group.

The information contained herein is based on our current knowledge and experience. No warranties, guarantees and/or assurances of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding any products mentioned herein and data or information set forth, or that such products, data or information may be used without infringing intellectual property rights of third parties. Any information about suitability, use or application of the products is non-binding and does not constitute a commitment regarding the products' properties, use or application. Contractual terms and conditions, in particular agreed product specifications, always take precedence. We recommend that you test our products in preliminary trials to determine their suitability for your intended purpose prior to use. We reserve the right to make any changes and to update the information herein without notice.

