

# 1,3 BUTYLENE GLYCOL CQ

COSMETIC FRAME  
FORMULATIONS

A yellow circle with a white number "3" inside, surrounded by a blue and white striped border.

3

# MATERIAL PROPERTIES

OXEA's 1,3 Butylene Glycol Cosmetic Quality (short form: 1,3 Butylene Glycol CQ or 1,3 BG CQ) is a clear, colorless and lightly viscous liquid. It is used in the formulation of a broad variety of cosmetic and personal care products, such as skin and face care, hair care, eye and facial make-up, fragrances, personal cleanliness products, shaving products and wet cleansing wipes.

1,3 Butylene Glycol Cosmetic Quality is used as a moisturizer, solubilizer, solvents, viscosity modifier and film spreading agent in cosmetics and personal care products.

Due to its only slightly viscous appearance and its good solubility in both polar and more non-polar media it can be

conveniently added to both aqueous and non-aqueous phases.

The following frame formulations are intended to give an introductory overview about the versatility of 1,3 Butylene Glycol CQ as ingredient in a variety of cosmetic applications.

## Product Description

INCI name	1,3 Butylene Glycol Cosmetic Quality
CAS Number	107-88-0
EINECS No.	203-529-7
REACH Registration	For OR representation, please contact OXEA



## Frame Formula for Deo-Stick

Phase	INCI	Concentration [%]
Fatty Phase	Aqua	38.25
	Panthenol + Aqua + Citric acid	1.00
	Pentylene Glycol + 4-t-Butylcyclohexanol	1.00
	Salvia officinalis Flower/Leaf/ Stern Extract + Glycerin + Water	2.00
	Chamomilla Recutita (Matricaria) Flower Extract	2.00
	Butylene Glycol	50.00
Thickening Phase	Sodium stearate	5.00
Fragrance	Citrus Aurantium Dulcis (Orange) Peel Oil	0.75
		<b>100.00</b>

Source: Cosmacon, Schenefeld (Germany), 2018, Formulation 158-18-5-4



## Frame Formula for Day Cream

Phase	INCI	Concentration [%]
Aqueous Phase	Aqua	66.40
	Sodium Phytate	0.25
	Aqua + Glycerine + Sodium Levulinate + Sodium Anisate	3.50
	Citric Acid	0.10
Thickening Phase	Sclerotium Gum	0.50
Fatty Phase	Butylene Glycol	5.00
	Glyceryl Stearate Citrat	3.50
	Ceterayl Alcohol	2.25
	Decyl Cocoate	6.00
	Tocopherol + Helianthus Annuus (Sunflower) Seed Oil	0.50
	Helianthus Annuus (Sunflower) Seed Oil	10.00
Prunus Amygdalus Dulcis (Sweet Almond) Oil	2.00	
		<b>100.00</b>

Source: Cosmacon, Schenefeld (Germany), 2018, Formulation 158-18-3-1





## Frame Formula for **Crystal Clear Hyaluronic Moisturizing Serum**

Phase	INCI	Concentration [%]
Aqueous Phase	Aqua	79.10
	Hydroxyacetophenone	0.80
	Lactic Acid	0.40
	Sodium Lactate	3.00
	Urea	3.00
Thickening Phase	Zinc PCA	1.00
	Butylene Glycol	10.00
	Tetrapeptide-30 + Glycerin	1.00
	Sodium Hyaluronate	0.80
	Sodium Hyaluronate	0.90
	<b>100.00</b>	

Source: Cosmacon, Schenefeld (Germany), 2018, Formula 158-18-4-1

## Frame Formula for **Body Cream**

Phase	INCI	Concentration [%]
Aqueous Phase	Aqua	65.65
	Potassium Hydroxide + Aqua	0.50
Fatty Phase	Stearic Acid + Palmitic Acid	2.75
	Myristyl Myristate	1.50
	Glyceryl Stearate	3.00
	Ceterayl Alcohol	3.00
	Dimethicone	0.75
	Hydrogenated Coco-Glycerides	1.00
	Caprylic/Capric Triglyceride	8.00
Active Phase	Alcohol Denat.	3.00
	Potassium Sorbate	0.50
	Perfume	0.35
	Butylene Glycol	10.00
	<b>100.00</b>	

Source: Cosmacon, Schenefeld (Germany), 2018, Formula 158-18-6-1



## Frame Formula for Lipstick

Phase	INCI	Concentration [%]
Fatty Phase	Euphorbia Cerifera Cera	10.00
	Cera Alba	6.00
	Bis-diglyceryl Polyacyladipate-2	5.00
	Butylene Glycol	5.00
	C12-15 Alkyl Benzoate	12.00
	Polyglyceryl-2 Dipolyhydroxystearate	5.00
	Sucrose Acetate Isobutyrate	5.00
	Glyceryl Hydrogenated Rosinate	6.00
	Panthenol + Aqua + Citric Acid	1.00
	Octyldodecanol	20.00
	Caprylic/Capric Triglyceride	24.95
	Parfum	0.05
		<b>100.00</b>

Source: Cosmacon Frame Formulation 158-18-8-1

## Frame Formula for Hair Gel

Phase	INCI	Concentration [%]
Aqueous Phase	Aqua	64.50
	Butylene Glycol	10.00
	Aminomethyl Propanol	1.30
Thickener Phase	Polyquaternium-68	5.00
	Acrylates/Methacrylamide Copolymer	13.00
Perfume Phase	Pentylene Glycol	5.00
	Polyglyceryl-10 Laurate	1.00
	Parfum	0.20
	<b>100.00</b>	

Source Cosmacon Frame Formulation 158-18-9-1



## Frame Formula for Sun Fluid SPF 30

Phase	INCI	Concentration [%]
Aqueous Phase	Aqua	46.70
	Butylene Glycol	10.00
	Hydroxyacetophenone	0.80
	Potassium Cetyl Phosphate	2.00
Extraphase	Ethylhexyl Benzoate	4.00
	Xanthan Gum + Lecithin + Sclerotium Gum + Pullulan + Silica	1.50
Fatty Phase	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	5.00
	Glyceryl Undecylenate	2.00
	Dibutyl Adipate	10.00
	Propylheptyl Caprylate	10.00
	Ethylhexyltriazone	2.00
	Diethylamino Hydroxybenzyl Hexyl Benzoate	6.00
	<b>100.00</b>	

Source: Cosmacon Frame Formulation 158-18-7-1

## Frame Formulation **Moisture Mask**

Phase	INCI	Concentration [%]
Water Phase	Aqua	74.25
	Aloe Barbadensis Leaf juice Powder	0.25
	Menthyl ethylamido oxalate	1.00
	Propylene Glycol + Citrullus Lanatus (Water Melon) Fruit Extract	5.00
	Betaine	1.00
Extraphase	Butylene Glycol	15.00
	Sodium Hyaluronate	0.90
	Sodium Hyaluronate	0.10
Perfume Phase	Polyglyceryl-10 Laurate + Aqua + Citric Acid	2.00
	Perfume	0.50
		<b>100.00</b>

Source: Cosmacon Formulation 158-18-11-3

## Detailed sales specification

Property	Limit	Unit	Test method
1,3 Butylene Glycol CQ	min. 99.5*	% (w/w)	Gas chromatography
Water	max. 0.5*	% (w/w)	DIN 51 777 tec./ASTM D 1364
Acidity, as Acetic Acid	max. 0.005*	% (w/w)	DIN EN ISO 2114/ASTM D 1613
Ash	max. 0.05	% (w/w)	ASTM D 2195
Sulfates, as SO <sub>4</sub>	max. 0.005	% (w/w)	IC
Heavy Metals, as Lead (Pb)	max. 5	mg/kg	ICP
Arsenic	max. 2	mg/kg	ICP
Distillation Range (95%)	max. 203 – 209	°C	DIN 53171/ASTM D 1078
Initial Boiling Point	min. 200	°C	DIN 53171/ASTM D 1078
Final Boiling Point	max. 215	°C	DIN 53171/ASTM D 1078
Platinum/Cobalt Color (Hazen/APHA Color)	max. 10*		DIN EN 1557/DIN EN ISO 6271/ASTM D 1209
Specific Gravity at 20/20 °C	1.004 – 1.006*		DIN EN 510757, Meth. D/ASTM D 4052
Refractive Index at 20 °C	1.4390 – 1.4410		DIN 51 423-2/ASTM D 1747
Odor	Odor less		OL 1462
Appearance	Clear liquid with no suspended matter*		Visual examination

\*Sales specification for 1,3 Butylene Glycol CQ.





For further information please contact your nearest  
OXEA Sales Representative.

### USA

Phone: +1 972-481-2700

### Germany

Phone: +49 2173 9993-0

[info@oxea-chemicals.com](mailto:info@oxea-chemicals.com)



[www.oxea-chemicals.com/en/  
contact/sales-cr.html](http://www.oxea-chemicals.com/en/contact/sales-cr.html)

### Disclaimer

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. OXEA makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. The user has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. The user must meet all applicable safety and health standards.

## Imprint

OXEA GmbH  
Rheinpromenade 4a  
40789 Monheim am Rhein  
Germany

Phone: +49 2173 9993-0  
[info@oxea-chemicals.com](mailto:info@oxea-chemicals.com)

Trade Register  
Amtsgericht Düsseldorf HRB 79958

VAT-Identification Number:  
DE813758906

### Layout

vE&K Advertising agency  
Essen

### Photography credits

Front cover (all by stock.adobe.com):  
© inarik, inside: © WavebreakMedia-  
Micro, © New Africa, © lenets\_tan,  
© peterschreiber.media, © ARTFULLY-79,  
© Maksymiv Iurii, © verona\_studio,  
© mikeosphoto, © Yakobchuk Olena,  
© Chonnajak.Bk

[www.oxea-chemicals.com](http://www.oxea-chemicals.com)