

FORMULATION EXAMPLE

MDA-S-105-03

Mosquito Repellent with UV protection and IR3535® SPF 15

Ingredients	INCI (US)	[%]
A1		
IR3535®	(1) ETHYL BUTYLACETYLAMINOPROPIONATE	10.00
Arlacel™ 165	(2) GLYCERYL STEARATE (AND) PEG-100 STEARATE	3.00
Span 60	(2) SORBITAN STEARATE	2.00
Parateck® LUB STA 50	(1) STEARIC ACID	2.00
Antaron WP-660	(3) TRICONTANYL PVP	3.00
Tegosoft TN	(4) C12-15 ALKYL BENZOATE	5.00
Miglyol 812 N	(5) CAPRYLIC/CAPRIC TRIGLYCERIDE	3.00
Cetiol CC	(6) DICAPRYLYL CARBONATE	5.00
Cetiol C5	(6) COCO CAPRYLATE	2.00
Schercemol DIS	(7) DIISOPROPYL SEBACATE	2.00
A2		
Eusolex® T-AVO	(1) TITANIUM DIOXIDE (AND) SILICA	5.00
B1		
Eusolex® T-AVO	(1) TITANIUM DIOXIDE (AND) SILICA	5.00
1,3-Butanediol	(1) BUTYLENE GLYCOL	3.00
RonaCare® Disodium EDTA	(1) DISODIUM EDTA	0.10
Water, demineralized	WATER	ad 100
B2		
Keltrol® CG-RD	(8) XANTHAN GUM	0.20
C		
Preservatives	PRESERVATIVES	q.s.

Procedure:

Disperse phase B2 into phase B1 until homogenous. Heat the whole phase B to 70-75°C. Heat phase A1 to 70°C. Disperse phase A2 in phase A1 (Dissolver disc). Heat the whole phase A to 70-75°C. Add phase A to phase B slowly while stirring. Homogenize. Cool down to 40°C and add phase C while stirring. Adjust pH value to pH 6.5 - 7.0.

Notes:

Appearance: white lotion

pH value (24°C): 6.7

Viscosity: 7600 mPa.s (Brookfield model RV DV-II+, Sp. B, 10 rpm) at 24°C

Stability: 3 months at 40°C, FTC (-5°C to 40°C), 5°C, RT and 1 week 50°C

Suppliers:

(1) Merck KGaA, Darmstadt, Germany / EMD Performance Materials

(3) ISP Global Technologies

(5) Sasol Germany GmbH

(7) Lubrizol

(2) Croda

(4) Evonik Nutrition & Care GmbH

(6) BASF AG

(8) RAHN GmbH

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