

ALOXICOLL® 51L

Enhanced Efficacy and Alcohol Soluble Antiperspirant Active

INCI Name: Aluminum Chlorohydrate

Empirical Formula: $Al_2(OH)_5Cl \times nH_2O$

Description

ALOXICOLL® 51L is an enhanced efficacy antiperspirant active, providing improved sweat reduction over standard Aluminium Chlorohydrate solution, ALOXICOLL® L. The increase in efficacy is attributed to an activation step, which causes a change in the polymer distribution. This can be measured by HPLC. A shift of polymers from band 1 to band 2 (min. 50 % of band 2) indicates an enhanced sweat reduction and increased alcohol solubility.

Chemical Properties

Aqueous / alcoholic solutions of ALOXICOLL® are slightly acidic. At pH values > 5, insoluble $Al(OH)_3$ precipitates out. On drying, the residue decomposes to HCl and $Al(OH)_3$. On further heating to temperatures >100°C, $Al(OH)_3$ releases water.

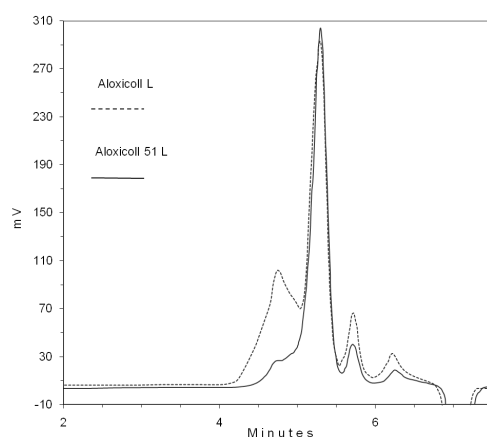
Physiological Properties

According to the application area and concentration applied, ALOXICOLL® exhibits sweat reducing, deodorant, astringent, antibacterial and antiphlogistic properties.

Application

ALOXICOLL® 51L is primarily used in formulations containing alcohol, e.g. pump-sprays, roll-ons, where an enhanced antiperspirant effect is desired. It can also be used in emulsions, pre-shaves and skin tonics.

ALOXICOLL® 51L forms clear solutions with water, alcohol and alcohol/water mixtures.



General Data

Form	~ 50 % solution
Aluminium	11,6 - 12,6 %
Chloride	7,6 - 8,4 %
Al : Cl	1,91 - 2,10
Iron	max. 50 ppm
Heavy metals [as Pb]	max. 10 ppm
pH [15 % solution]	4,0 - 4,5
Density	1,300 - 1,345 g/ml



Raw Materials / Trade name	INCI name	w/w [%]
Arlamol E (2)	PPG-15 Stearyl Ether	5,00
Ethanol	SD Alcohol 39-C	52,50
Butylenglycol 1,3	Butylene glycol	2,5
Aloxicoll® 51L (1)	Aluminum Chlorohydrate	30,00
Perfume		q.s.
Colour		q.s.

Antiperspirant Pump Spray A 51

Procedure

Mix all ingredients well under stirring.

Suppliers

- 1)BK Giulini
- 2)Goldschmidt

Raw Materials / Trade name	INCI name	w/w [%]
A. Ethanol	SD Alcohol 39-C	40,00
Polychol 20 (4)	Laneth-20	4,00
Arlamol E (5)	PPG-15 Stearyl Ether	2,00
Aloxicoll® 51L (1)	Aluminum Chlorohy- drate	30,00
B. Klucel M (6)	Hydroxypropyl- cellulose	0,70
Water		23,30

Antiperspirant Clear Roll On A 52

Procedure

Mix Ethanol, Polychol and Arlamol well while stirring and subsequently add phase B under agitation. Finally add **Aloxicoll®**.

Suppliers

- 1)BK Giulini
- 4)Croda
- 5)Uniquema
- 6)Aqualon/Hercules

Safety

ALOXICOLL® 51L is an Aluminium Chlorohydrate according to USP 32.

The FDA Final Antiperspirant Monograph classifies ALOXICOLL® 51L under category 1, as safe and effective for use in all types of antiperspirant formulations.

Packaging

ALOXICOLL® 51L is available in 150 kg and 275 kg PE-drums or in 1000 kg and 1300 kg containers.

Storage

ALOXICOLL® 51L can be stored for more than 3 years in original, unopened containers. Once opened, the material should be used quickly. ALOXICOLL® 51L solution should be protected from freezing, and storage at high temperatures should be avoided.

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