

ALOXICOLL® 51L

Enhanced Efficacy and Alcohol Soluble Antiperspirant Active

INCI Name: Aluminum Chlorohydrate

Empirical Formula: $\text{Al}_2(\text{OH})_5\text{Cl} \times n\text{H}_2\text{O}$

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 $\text{Al}(\text{OH})_3$ precipitates out. On drying, the residue decomposes to HCl and $\text{Al}(\text{OH})_3$. On further heating to temperatures >100°C, $\text{Al}(\text{OH})_3$ releases water.

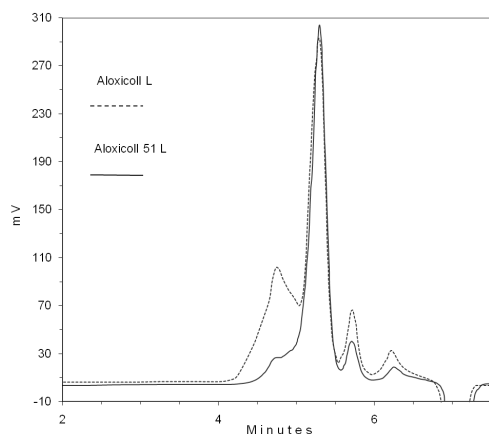
Physiological Properties

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 36.

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.

BK Giulini GmbH has attempted to be accurate and informative regarding the products described herein: however, due to the vast potential for use of such products, we cannot take responsibility for results from the use of any product, method, or apparatus mentioned in this brochure. We must advise that no statement or suggestion herein is to be considered a recommendation or inducement for any use, manufacture, or sale that may infringe any patents now or hereafter in existence. It is the user's responsibility to make and be guided by his own tests in determining the suitability of any such product, method, or apparatus for any purpose.