

ALOXICOLL® 51P

Enhanced Efficacy and Alcohol Soluble Antiperspirant Active

INCI Name: Aluminum Chlorohydrate

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

Description

ALOXICOLL® 51P is an enhanced efficacy antiperspirant active, providing improved sweat reduction over standard Aluminium Chlorohydrate, ALOXICOLL® PF40. 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

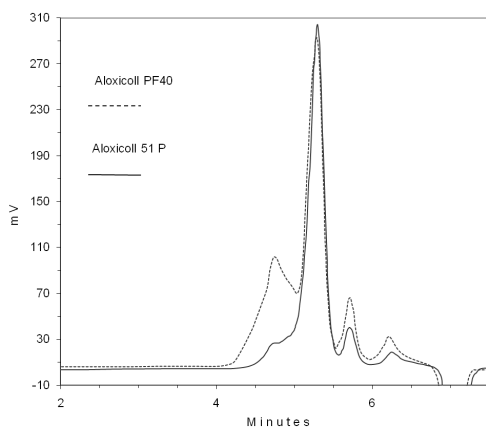
Aqueous / alcoholic solutions of ALOXICOLL® are slightly acidic. At pH values > 5, insoluble $Al(OH)_3$ precipitates out. On drying, the residue decomposes to HCl and $Al(OH)_3$. On further heating to temperatures >100°C, $Al(OH)_3$ releases water.

Physiological Properties

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

Application

ALOXICOLL® 51P is primarily used in anhydrous formulations, e.g. aerosols, sticks, soft solids, suspension roll-ons and creams, where an enhanced antiperspirant effect is desired.



General Data

Form	fine powder
Aluminium	24,4 - 26,1 %
Chloride	15,8 - 17,1 %
Al : Cl	1,91 - 2,10
Iron	max. 100 ppm
Heavy metals [as Pb]	max. 20 ppm
pH [15 % solution]	4,0 - 4,8
Particle size	97 % < 45µm



Raw Materials / Trade name	INCI name	w/w [%]
Gilugel® SIL 5 (1)	Cyclopentasiloxane (and) Cyclohexasiloxane (and) Aluminum/Magnesium Hydroxide Stearate	29,00
Isopropyl Myristate	Isopropyl Myristate	20,00
DC 345 Fluid(2)	Cyclopentasiloxane (and) Cyclohexasiloxane	18,00
Aloxicoll 51P (1)	Aluminum Chlorohydrate	33,00
Filling instruction:		
Antiperspirant bulk	Antiperspirant bulk	25,00
Propane	Propane	5,25
Butane	Butane	29,75
n-Pentane	n-Pentane	40,00

Antiperspirant Aerosol A 70

Procedure

Mix **Gilugel®**, IPM and volatile Silicone under rapid agitation. Disperse the **Aloxicoll®** Powder and mix under shear until the solids are uniformly dispersed. Add perfume, fill into cans, degas and pressurise.

Suppliers

- 1)BK Giulini
- 2)Dow Corning

Safety

ALOXICOLL® 51P is an Aluminium Chlorohydrate according to USP 33.

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

Packaging

ALOXICOLL® 51P is available in 70 kg PE-drums.

Storage

ALOXICOLL® 51P can be stored for more than 3 years in original, unopened containers. Once opened, the material should be used quickly and contact with moisture should be avoided.

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