

Activated ALOXICOLL® 71P

Enhanced Efficacy Antiperspirant Active

INCI Name: Aluminum Chlorohydrate

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

Description

Activated ALOXICOLL® 71P is an enhanced efficacy antiperspirant active, providing improved sweat reduction over standard Aluminium Chlorohydrate powder, 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 bands 1 and 2 to band 3 indicates an enhanced sweat reduction.

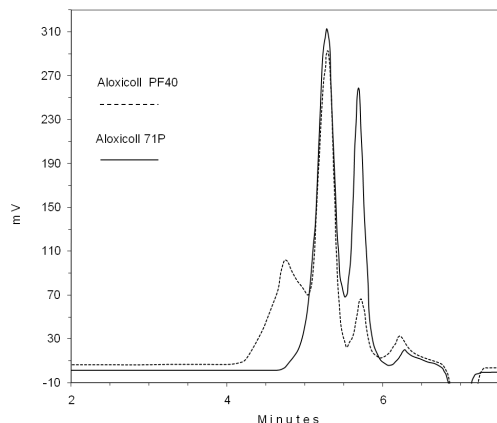
Chemical Properties

Activated ALOXICOLL® powders are stable under anhydrous conditions. 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.

Application

Activated ALOXICOLL® powders are used in anhydrous formulations, e.g. in aerosols, roll-ons, soft solids, creams and sticks, where maximum antiperspirant efficacy is required. The enhanced efficacy can only be maintained in anhydrous systems, and contact with water should be avoided prior to application to the skin.

Activated ALOXICOLL® 71P powder has a fine particle size distribution and high surface area, which lend improved stability to suspensions and allow rapid release of the active. It is ideal for use in aerosols, suspension roll-ons, soft-solids, creams and sticks.



General Data

Form	yellowish white powder
Aluminium	24,5 - 25,7 %
Chloride	15,8 - 17,5 %
Al : Cl	1,91 - 2,10
Iron	max. 125 ppm
Heavy metals [as Pb]	max. 20 ppm
pH [15 % solution]	4,0 - 4,8
Particle Size	97 % < 45 µm 99,8 % < 106 µm



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
Act. Aloxicoll® 71P (1)	Aluminum Chlorohydrate	33,00
Filling instructions:		
Antiperspirant bulk		25,00
Propane		5,25
Butane		29,75
n-Pentane		40,00

Raw Materials / Trade name	INCI name	w/w [%]
DC 344 Fluid(2)	Cyclotetrasiloxane (and) Cyclopentasiloxane	34,50
Arlacel 165 (3)	Glyceryl Stearate (and) PEG-100 Stearate	1,00
Lanette 18 (4)	Stearyl Alcohol	19,00
Polyethyleneglycol 4000	PEG - 75	5,00
Act. Aloxicoll® 71P (1)	Aluminum Chlorohydrate	20,00
Cutina HR (4)	Hydrogenated Castor Oil	0,50
Gilugel® SIL 5 (1)	Cyclopentasiloxane (and) Cyclohexasiloxane (and) Aluminum Magnesium Hydroxide Stearate	20,00

Safety

Activated ALOXICOLL® 71P is Aluminium Chlorohydrates according to USP 32. The FDA Final Antiperspirant Monograph classifies ALOXICOLL® types under category 1, as safe and effective for use in all types of antiperspirant formulations.

Packaging

Activated ALOXICOLL® 71P powder is available in 80 kg PE drums.

Storage

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

Antiperspirant Aerosol A 70

Procedure

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

Suppliers

- 1) BK Giulini
- 2) Dow Corning

Antiperspirant Stick A 71

Procedure

Combine the Arlacel, Lanette, PEG and Cutina, heat to 80 °C and mix well. Add **Gilugel®** under agitation. When a homogeneous gel is formed, add the **Aloxicoll®** and cool to 65 °C. When the dispersion is uniform, add the volatile Silicone, cool to 55 °C and fill into containers. Stir continuously during the filling operation.

Suppliers

- 1)BK Giulini
- 2)Dow Corning
- 3)Uniquema
- 4)Cognis

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