

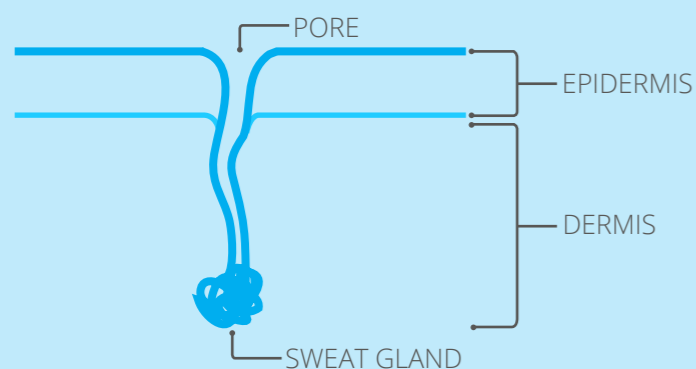
EVERYDAY COMPOUNDS: ALUMINIUM CHLOROHYDRATE

ALUMINIUM CHLOROHYDRATE IS AN INORGANIC POLYMER, WITH THE GENERAL FORMULA $\text{Al}_n\text{Cl}_{3n-m}(\text{OH})_m$. IT IS SYNTHETICALLY PRODUCED FROM OTHER ALUMINIUM COMPOUNDS

AS AN ANTI-PERSPIRANT

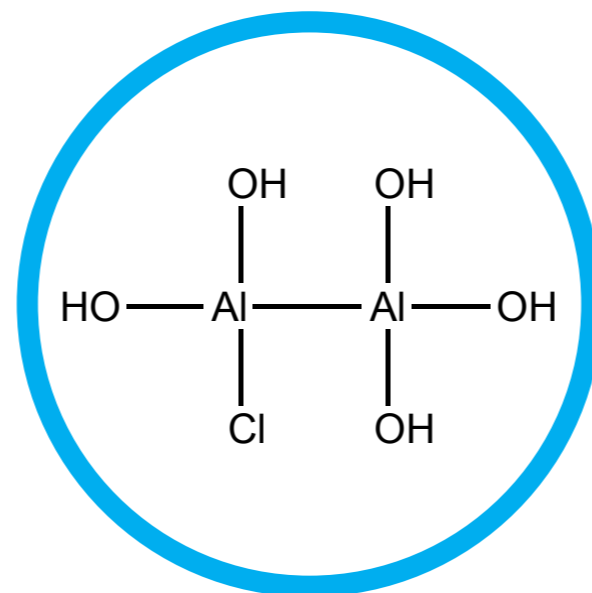
Average concentration: 10-25%

Aluminium chlorohydrate is the active ingredient in many anti-perspirants. Aluminium ions pass into cells in the top layer of the skin which lines the eccrine gland sweat ducts, and water passes in with them. This causes the cells to swell, squeezing the ducts closed so that the sweat cannot get out.



AS A COAGULANT

Aluminium chlorohydrate is used in water and waste management processes to remove dissolved organic matter and small particles of impurities, causing them to come together so they can be removed.



ALUMINIUM CHLOROHYDRATE

Poly Aluminium Chloride

White powder



LINKS WITH BREAST CANCER

There is no scientific evidence that aluminium compounds found in anti-perspirants, including aluminium chlorohydrate, can cause cancer, despite claims to the contrary.

Research has shown that only 0.012% of the aluminium contained in anti-perspirants is absorbed through the skin. This is less than would be expected to be absorbed from food during the same time.

Prior to a mammogram, it is advised not to use anti-perspirant, but this is due to the fact that aluminium could show up in the mammogram and give a false positive.

SYNTHESIS

Aluminium chlorohydrate is prepared industrially by the reaction of aluminium with hydrochloric acid. Aluminium hydroxide is the main aluminium-containing compound usually used.