Shaklee Canada Inc. 7-3100 Harvester Road Burlington, ON L7N 3W8



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Technical Services Dept. Information Sheet

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ALUMINUM CHLORHYDRATE IN ROLL-ON ANTI-PERSPIRANT

Shaklee uses aluminum chlorohydrate in our **Roll-On Anti-Perspirant** because we've found it to be the safest and most effective compound in reducing underarm wetness. Our decision to use this ingredient was a carefully considered one and based on years of safe testing on human volunteers under medical supervision.

The aluminum in **Roll-On Anti-Perspirant** is not readily absorbed through the skin because the aluminum molecule is too large for this to occur. In addition, in Canada anti-perspirants must by law contain aluminum or aluminum-zirconium compounds because they're the only compounds that, when applied to the underarm, are safe and effective in blocking the pores that release perspiration. Deodorants, on the other hand, simply add a fragrance to mask the odour of underarm perspiration. Provided there are no open lesions on the skin, there will be no transfer of aluminum from the product into the bloodstream during application. Aerosol anti-perspirants, however, can pose a problem of aluminum ingestion if the overspray from the can is inhaled into the lungs. Since Shaklee's product is a roll-on cream and not a spray, there's no danger of this happening.

Concerns about aluminum chlorohydrate generally centre on the long-held but errant beliefs that the use of aluminum chlorhydrate causes Alzheimer's disease or breast cancer. These claims do not square with sound scientific and medical data.

Assertions about aluminum and Alzheimer's disease started in the mid-1970s, when a published report indicated that the brain tissue of Alzheimer's victims contained significantly higher concentrations of aluminum than normal brain tissue. The primary concern was for ingested forms of aluminum, although some people questioned anti-perspirant deodorants containing aluminum.

Subsequent research has shown that the brain tissue of Alzheimer's victims contains pockets of aluminum, while aluminum is distributed uniformly in normal brain tissue. Normal human brains, as well as diseased brains, have the same amount of aluminum. The cause for the "pocketing" of aluminum is not yet known.

Aluminum is actually a naturally occurring abundant element that's pretty much everywhere – in the air, water, soil, and food that we eat. It has been estimated that foods contribute perhaps more than 2000 mg daily, while less than 4 mg are typically obtained from aluminum cookware. There's just no data showing that aluminum – particularly the very minute amount, if any, that might be absorbed via topical anti-perspirant use – causes Alzheimer's or any other neurological disease.

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Another unfounded assertion about aluminum in anti-perspirants is that it causes breast cancer because it prevents toxins in the lymph system from escaping the body. This contention has no scientific support either.

The lymph system is the body's second circulatory system. It takes things out of the body, not into the body, and flows from the breasts to the armpits and into the bloodstream. Consider also that breast cancer typically travels from the breast to the lymph nodes, not vice-versa. While the myth about breast cancer and anti-perspirants is alarming, it is not true. Health Canada, the U.S. Food and Drug Administration (FDA), and various cancer research organizations have been unable to find scientific or medical evidence linking aluminum chlorohydrate to breast cancer.

Despite widespread cautions from many sources to avoid the use of aluminum chlorhydrate and other similar compounds in anti-perspirants for the unsubstantiated reasons stated above, we at Shaklee feel that its use in our **Roll-On Anti-Perspirant** continues to be safe and effective.