



# Safety Statement

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Product Name: SilDerm® SQ

Code: 30311

INCI Name: Polymethylsilsesquioxane

SilDerm® SQ is manufactured by hydrolyzing methyltrimethoxysilane under controlled conditions. The product then undergoes condensation.

Polymethylsilsesquioxane is a silicone used in several industries. It is commonly used in cosmetics to impart a smooth feel, but it's also utilized in transdermal drug delivery patches, oral drug encapsulations, wound healing materials, and delivery of sunscreens.<sup>1</sup>

In 2013, the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) published a report concerning Tapioca Starch Polymethylsilsesquioxane, the reaction product of starch and polymethylsilsesquioxane. The report included a safety assessment, which concluded that the product is not irritating to the eyes or skin, and does not need to be monitored under any chemical regulatory systems.<sup>2</sup>

The potential health effect of polymethylsilsesquioxane was further investigated and summarized by an industry standard Material Safety Data Sheet (MSDS). This MSDS states that polymethylsilsesquioxane is not expected to show any adverse skin, inhalation, ingestion, or eye effects under normal conditions of use. The MSDS also concluded that this ingredient, when present at 0.1% or more, is not listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.<sup>3</sup>

SilDerm® SQ was tested using *in vitro* dermal and ocular irritation models. This product was found to be non-irritating in both models. The full report is attached for reference.

The above information supports the safety of SilDerm® SQ in cosmetic applications at use levels of 1.0-5.0%. No further testing is required at this time.

1. "Polymethylsilsesquioxane". ToxNet. <http://toxnet.nlm.nih.gov/cgi-bin/sis/search>
2. "Siloxanes and Silicones, Me hydrogen, reaction products with starch (INCI name: Tapioca Starch Polymethylsilsesquioxane). National Industrial Chemicals Notification and Assessment Scheme (NICNAS). June 2013.
3. "Tospearl120A methylsilsesquioxane resin". Momentive MSDS Version 1.4 – 10/02/2013

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