



Technical Data Sheet

DOWSIL™ 580 Wax

INCI NAME: Stearoxytrimethylsilane and Stearyl Alcohol

Features & Benefits

- Increased viscosity
- Low melting point
- Compatible with organic ingredients
- Lubricity
- Provides water repellent, non-occlusive film
- Detackification

Applications

- In skin creams it enhances feel and rub out characteristics at use levels from 5–10%. Detackification is achieved at even lower levels 0.5–2%. Payout and feel in lipstick is imparted at use levels from 1–5%.
- In non-lather shaving creams lubricity can be markedly improved at use levels of 3–5%; for feel the use levels may be as low as 1% or as high as 5%.
- Very low use levels are required to impart soft feel and lustre to hair sprays (0.1–0.5%), while hydrophobicity of make-up can be controlled quite accurately with use levels in the range of 0.1 to 1%.

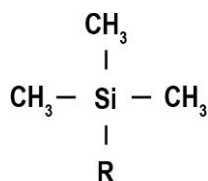
Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Color (Gardner scale) of melted wax in liquid form at 60–70°C (140–158°F)		7
Flash point - closed cup	°C	75
	°F	167
Melting range	°C	50–55
	°F	122–131
Free stearyl alcohol	%	40
Cyclotetrasiloxane (D4) content	%	< 0.1
Cyclopentasiloxane (D5) content	%	< 0.1

Description

DOWSIL™ 580 Wax is a soft, solid mixture of stearyl alcohol and stearoxytrimethylsilane. The cosmetic properties of the wax are a result of the silicone moiety. The inclusion of the stearoxy group involves compatibility with organic ingredients. Hair care and skin care products benefit from the property of this wax to facilitate the formation of a very thin film which is neither oily, tacky or too dry.



R is Stearoxy

Figure 1: Chemical formula for DOWSIL™ 580 Wax.

Regulatory Status

DOWSIL™ 580 Wax is referenced in JCIC under the chemical name Stearoxytrimethylsilane with the code 523139 in the CLS categories: 1–7: No limit, 8–11: No limit.

Handling Precautions

Under elevated temperature conditions, this material can generate hexamethyldisiloxane which is highly flammable. If heating this material, bond and ground and use an inert purge for vessels to prevent a possible fire.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life And Storage

When stored at or below 25°C (77°F) in the original unopened containers, this product has a usable life of 30 months from the date of production.

At temperatures above 40°C (104°F), DOWSIL™ 580 Wax will start to melt and separation may occur. This is a physical separation of the product, not a quality or chemistry issue. This is a typical property for this product. To prevent this separation, it is suggested to store the drums in a cool location (< 30°C/< 86°F). If separation does occur, the product should be re-melted to 65–70°C (149–158°F) and mixed thoroughly to form a homogeneous mixture prior to use.

Once the drum is re-melted, remixed, and cooled to less than < 30°C (< 86°F), the liquid phase will re-solidify. The rate of solidification is dependent upon the cooling temperature. There is no change of product chemistry and properties after this re-melting process.

Packaging Information

This product is available in 14 kg pails and 160 kg drums.

Samples are available in 500 ml bottles.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health And Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, www.consumer.dow.com or consult your local Dow representative.

Table 1: Compatibility

Type of Material ¹	
Ethanol (95%)	C (hot)
Water	I
Glycerine	I
Mineral oil	C
Beeswax	C
Isopropyl myristate	C
Lanolin	C
Dimethicone 350mm ² s ⁻¹	C
Paraffin wax	C

1. Proportions tested: 1:1, 10:1, 1:10.
C = Compatible, I = Incompatible.

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LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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