



Technical Data Sheet

DOWSIL™ MQ-1600 Resin

INCI Name: Trimethylsiloxysilicate

Features & Benefits

- Film former
- Easy to use flake delivery form
- Solvent free
- Permeable film
- Compatible with silicone and organic carriers.
- Excellent transfer and wash off resistance
- Sebum resistance
- Long lasting
- SPF enhancement potential
- Ease of formulation
- Non-tacky feel when dried

Composition

- MQ silicone resin

Applications

- Color cosmetics, skin care and sun care.

Typical Properties

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

Property	Unit	Result
Appearance		White
Odor		Minimal
Specific gravity		1.23
Flash point (closed cup)	°C	> 100

Description

DOWSIL™ MQ-1600 Resin is 100% trimethylsiloxysilicate resin. This silicone resin provides excellent transfer and wash-off resistance. In sunscreens DOWSIL™ MQ-1600 Resin can enhance the SPF wash-off resistance.

How to Use

DOWSIL™ MQ-1600 Resin can be dissolved in different organic and silicone oils up to concentrations of 50% or more. Table 1 details the compatibility with common cosmetic ingredients at 50% concentration. It is recommended to add the resin slowly to the oil under agitation to prevent the resin from forming aggregates that are difficult to re-disperse. DOWSIL™ MQ-1600 Resin increases the final viscosity of the carrier, depending on concentration and oil type, resulting in improved stability in emulsions and lipsticks.

Table 1:

Compatibility of DOWSIL™ MQ-1600 Resin with Common Cosmetic Ingredients at 50%.

Common Cosmetic Ingredients	1:1
Water	NC
Ethanol	C
Esters	
Caprylic/Capric Triglycerides	C
C12-15 Alkyl Benzoate	C
Hydrocarbons	
Squalane	NC
Isododecane	C
Isohexadecane	C
Silicones	
XIAMETER™ PMX-1184 Silicone Fluid	C
XIAMETER™ PMX-200 Silicone Fluid 50 cSt	C
DOWSIL™ 556 Cosmetic Grade Fluid	C
DOWSIL™ FZ-3196 Fluid	C

NC: Not Compatible; C: Compatible

Handling Precautions

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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

No special storage measures are required. When stored at or below 32°C in the original unopened container, the product has a usable life of 24 months.

Packaging Information

This product is available in 20 kg bags.

Samples are available in 500 g.

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, dow.com, or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products — from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

Table 2

Performance of the film of DOWSIL™ MQ-1600 Resin.

Film surface properties		Film permeability	Wash-off resistance on the skin
Contact angle of water	Contact angle of artificial sebum oil	Water loss (g/m ² ·h)	Remains on the skin after 3 times washing (percentage)
105.8	45.2	87.74	72.7%

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DOWSIL™ MQ-1600 Resin

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