

# *Dow Corning*<sup>®</sup> TI-7021 Silicone Resin Blend

## **FEATURES & BENEFITS**

- Film barrier properties
- Permeable film
- Contains a non volatile dimethicone as carrier
- Improved wash-off resistance
- Long lasting
- Ease of formulation

## **COMPOSITION**

- Combination of MQ-silicone resin in dimethicone
- INCI name: Trimethylsiloxisilicate and dimethicone

## **REGULATORY SUPPORT**

Ingredient Information Package (IIP)

- Ingredient Regulatory Information
- Elemental Impurities
- Summary of Health Data or Opinion letter

Formulation ingredient for topical consumer healthcare applications

## **APPLICATIONS**

- *Dow Corning*<sup>®</sup> TI-7021 Silicone Resin Blend is commonly used in topical formulations due to its long lasting, film barrier properties and wash off resistance.
- This silicone resin blend is currently used in a range of dermatological consumer healthcare, or medicated skin care applications; such as protective creams, baby creams, insect repellent and sunscreen creams and lotions.

## **TYPICAL PROPERTIES**

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

| CTM <sup>1</sup> | Property                 | Unit               | Result                                  |
|------------------|--------------------------|--------------------|---|
| 0176 B           | Appearance               |                    | Colorless to pale yellow viscous liquid |
| 0004 A           | Viscosity at 25°C        | mm <sup>2</sup> /s | 700                                     |
| 0002 A           | Refractive index at 25°C |                    | 1.409                                   |
| 0006             | Flash point – closed cup | °C                 | >100                                    |
|                  | Silicone Content         | %                  | 100                                     |

<sup>1</sup>CTM: Corporate Test Method, copies of CTM's are available on request.

## **DESCRIPTION**

*Dow Corning* TI-7021 Silicone Resin Blend is a combination of a dimethylsiloxane polymer and a high molecular weight silicone resin. It has properties similar to a high viscosity polydimethylsiloxane fluid but with superior water repellency.

## **SPECIFIC TESTING**

- Infrared identification on each batch
- Tested for elemental impurities according to <232> and ICH Q3D guideline for metal impurities, every 2 years.

## **HOW TO USE**

*Dow Corning* TI-7021 Silicone Resin Blend is an easy to use blend of resin and dimethicone. It is compatible with a range of topical ingredients (refer to Table 1).

When preparing an emulsion, it is recommended to add *Dow Corning* TI-7021 Silicone Resin Blend in the oil phase.

## REGULATORY INFORMATION

*Dow Corning* TI-7021 Silicone Resin Blend is produced at a Dow Corning manufacturing site registered as part of Dow Corning's global quality system according to ISO 9001:2008.

Dow Corning can provide an Ingredient Information Package (IIP) containing the following information:

- Ingredient Regulatory Information
- Elemental Impurities
- Summary of Health Data or opinion letter

**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 CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.**

## USABLE LIFE AND STORAGE

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

## PACKAGING INFORMATION

This product is available in pails and drums.

Samples are available in bottles.

## LIMITATIONS

This product is neither tested nor represented as suitable for specific pharmaceutical uses. However, should you wish to use this product in a pharmaceutical application, please contact Dow Corning to discuss such potential use.

It is the user's role responsibility to ensure that their intended use of these materials complies with all regulatory and legal requirements applicable to such use in each relevant jurisdiction including targeted geographic regions of manufacture and supply.

## HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, [dowcorning.com](http://dowcorning.com) or consult your local Dow Corning representative.

## 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 Corning'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.

**TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.**

**DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

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**Table 1: Compatibility Data**

| Type of material             | 10%<br><i>Dow Corning TI-7021</i><br>Silicone Resin Blend | 50%<br><i>Dow Corning TI-7021</i><br>Silicone Resin Blend | 90%<br><i>Dow Corning TI-7021</i><br>Silicone Resin Blend |
|------------------------------|---|---|---|
| Water                        | NC  | NC  | NC  |
| Propylene glycol             | NC  | NC  | NC  |
| Glycerin                     | NC  | NC  | NC  |
| <b>Alcohols</b>              |   |   |   |
| Ethanol (95%)                | NC  | NC  | NC  |
| Isopropanol (99%)            | C   | C   | NC  |
| Stearyl alcohol              | NC  | NC  | NC  |
| <b>Esters</b>                |   |   |   |
| Isopropyl myristate          | C   | C   | C   |
| Isoropoyl palmitate          | C   | C   | C   |
| C12-C15 alkyl benzoate       | NC  | NC  | NC  |
| Caprylic/Capric triglyceride | NC  | NC  | NC  |
| <b>Hyrdorcarbons</b>         |   |   |   |
| Mineral oil                  | NC  | NC  | NC  |
| Paraffin wax                 | NC  | NC  | NC  |
| <b>Silicones</b>             |   |   |   |
| Phenyl trimethicone          | C   | C   | C   |
| Dimethicone and dimethiconol | C   | C   | C   |
| Cyclopentasiloxane           | C   | C   | C   |
| Dimethicone (350 cSt)        | C   | C   | C   |
| <b>Miscellaneous</b>         |   |   |   |
| Beeswax                      | NC  | NC  | NC  |
| Lanolin                      | C   | C   | C   |
| Isododecane                  | C   | C   | C   |

C= compatible, NC= non compatible (forms 2 phases).