

Dow Corning[®] TI-1050 Fluid, from 50 cSt to 1000 cSt

FEATURES & BENEFITS

- Clear
- Spreadability
- Water repellent
- Non-occlusive
- Emollient
- Smooth feel
- Lubricity

COMPOSITION

- Polydimethylsiloxane
- INCI Name: Dimethicone
- CAS Number: 63148-62-9

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*[®] TI-1050 Fluid, 50 cSt to 1000 cSt, is commonly used as a base fluid in topical formulation on account of its lubricity, ease of spreading, smooth feel, emolliency and reduced tackiness. These silicone fluids are used in various skin contact applications like personal lubrication, dermatological formulations, and consumer healthcare applications.

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.

Test ¹	Unit	Results				
<i>Dow Corning</i> [®] TI-1050 Fluid						
		50 cSt	100 cSt	200 cSt	350 cSt	1000 cSt
Viscosity at 25°C	mm ² /s	50	100	200	350	1000
Refractive index at 25°C		1.4005	1.4013	1.4013	1.4013	1.4013
Specific gravity at 25°C		0.960	0.965	0.967	0.971	0.973
Volatile content max	%	0.3	0.02	0.07	0.05	0.01

¹Corporate Test Methods: 0004, 0002, 0044, 0208.

DESCRIPTION

Dow Corning TI-1050 Fluid, 50 cSt to 1000 cSt is a clear, colorless polydimethylsiloxane liquid. It is an ingredient used to formulate with other organic or in-organic materials.

Dow Corning TI-1050 Fluid is available in a range of 5 intermediate viscosities: 50 cSt, 100 cSt, 200 cSt, 350 cSt, and 1000 cSt.

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-1050 Fluid, 50 cSt to 1000 cSt is soluble in organic solvents such as aliphatic and aromatic hydrocarbons. *Dow Corning* TI-1050 Fluid, 50 cSt to 1000 cSt is insoluble in water and in many organic products (refer to Table 1).

Dow Corning TI-1050, 50 cSt to 1000 cSt may be used alone or blended with other silicone to provide a fluid base for a variety of formulation and provide a smooth film on the skin.

The fluid is easily emulsified in water with standard emulsifiers and normal emulsification techniques.

REGULATORY INFORMATION

Dow Corning TI-1050 Fluid, 50 cSt to 1000 cSt 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 (77°F) in the original unopened containers, *Dow Corning* TI-1050 Fluids 100 cSt to 1000 cSt have a usable life of 72 months from the date of production.

Dow Corning TI-1050 Fluids 50 cSt has a usable life of 60 months from the date of production.

PACKAGING INFORMATION

Dow Corning TI-1050 Fluid, 50 cSt to 1000 cSt is available in drums and totes.

Samples are available in bottles.

LIMITATIONS

This product is neither tested nor represented as suitable for specific pharmaceutical use. 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 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.

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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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dowcorning.com

Table 1: Compatibility Data

Type of material	Dow Corning® TI-1050 Fluid, 50 cSt			Dow Corning® TI-1050 Fluid, 100 cSt			Dow Corning® TI-1050 Fluid, 200 cSt			Dow Corning® TI-1050 Fluid, 350 cSt			Dow Corning® TI-1050 Fluid, 1000 cSt		
	10%	50%	90%	10%	50%	90%	10%	50%	90%	10%	50%	90%	10%	50%	90%
Alcohols and polyols															
Ethanol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Glycerin	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Propylene glycol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Ethoxydiglycol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Squalane				NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Octyldodecanol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Oleyl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Lauryl alcohol	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Oils															
Lanolin oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Sunflower oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Castor oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Almond oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Coconut oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Corn oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Jojoba oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Palm oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Sesam oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Soybean oil	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Esters															
Isopropyl Myristate	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Isopropyl Palmitate	C	C	C	C	C	C	C	C	C	C	C	C	NC	C	C
Octylpalmitate	C	C	C	C	C	C	C	NC	C	C	NC	C	NC	NC	NC
C12-C15 Alkyl benzoate	C	NC	NC	NC	NC	C	NC	NC	NC	NC	NC	NC	NC	NC	NC
CaprylNC/CaprNC Triglyceride	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Coco-Caprylate/Caprate	C	C	C	C	C	C				NC	NC	C	NC	NC	C
Diisopropyl Adipate	C	C	C	C	C	C				NC	NC	C	NC	NC	C
Diisostearyl Fumarate	C	C	C	C	C	C				NC	NC	NC	NC	NC	NC
Diisostearyl Malate	C	C	C	C	NC	C	NC	NC	NC	NC	NC	NC	NC	NC	NC
Dioctyl Maleate	C	C	C	C	C	C	NC	NC	NC	NC	NC	NC	NC	NC	NC
Isocetyl Stearate	NC	NC	NC	NC	NC	C	NC	NC	NC	NC	NC	NC	NC	NC	NC
Isopropyl Isostearate	C	C	C	C	C	C	NC	C	C	NC	C	C	NC	C	C
Isopropyl Laurate	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Isopropyl Stearate	C	C	C	C	C	C	C	C	C	C	C	C	NC	NC	C
Isostearyl Benzoate	NC	NC	C	NC	NC	C	NC	NC	NC	NC	NC	NC	NC	NC	NC
Myristyl Ether Acetate	C	C	C	C	C	C				NC	NC	NC	NC	NC	NC
Myristyl Lactate	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Octyldodecyl Stearoyl Stearate	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Octylstearate	C	NC	C	C	C	C				NC	NC	C	NC	NC	NC
Tridecyl Neopentanoate	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Triisocetyl Citrate	NC	NC	NC	C	NC	NC	NC	NC	NC	NC	NC	NC	C	NC	NC
Hydrocarbone															
Mineral oil	NC	NC	C	NC	NC	C	NC	NC	C	NC	NC	C	NC	NC	NC
Isododecane	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Polydecene	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Isopar H	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Petrolatum	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

C= Compatible; NC = non compatible (form 2 phases)

Table 1: Compatibility Data (continued)

Type of material	Dow Corning® TI-1050 Fluid, 50 cSt			Dow Corning® TI-1050 Fluid, 100 cSt			Dow Corning® TI-1050 Fluid, 200 cSt			Dow Corning® TI-1050 Fluid, 350 cSt			Dow Corning® TI-1050 Fluid, 1000 cSt		
	10%	50%	90%	10%	50%	90%	10%	50%	90%	10%	50%	90%	10%	50%	90%
Sunscreen agent															
Octyl dimethyl PABA	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Octyl salicylate	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Others															
Glyceryl trioctanoate	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Polyglyceryl-3 diisostearate	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Water	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Silicone															
Hexamethyl disiloxane	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Hexamethyl disiloxane	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Dimethicone (20 cSt)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Dimethicone (100 cSt)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Dimethicone (1000 cSt)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Dimethicone (12,500 cSt)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Dimethiconol and dimethicone	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Dimethiconol and hexamethyldisiloxane	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Cyclopentasiloxane	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Glyceryl esters															
Apricot kernel oil PEG-6 esters	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Alkoxyated Alcohols															
PEG-15 Stearyl ether	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
PEG-8	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC