



# BRB DM 1

INCI NAME: Trisiloxane

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## Description

*BRB DM 1* is a 1 cSt volatile linear silicone fluid with a fast evaporation.

## Application

The unique volatility and excellent spreading of *BRB DM 1* makes it an appreciated ingredient in various Personal Care applications such as Skin Care, deodorants & antiperspirants, Sun care, Hair Care and Color Cosmetics. Due to its low heat of vaporization *BRB DM 1* does not cool the skin when it evaporates as other volatile carriers do.

## Features

- Highly volatile carrier
- Low surface tension
- Compatible with a wide range of cosmetic ingredients
- Non-VOC cosmetic solvent

## Benefits

- Imparts soft feel to the skin
- Excellent spreading
- Leaves no oily residue or build-up and excellent non-greasy feel

## Typical Data

Parameter	Unit	Value
Appearance		Colourless liquid
Specific gravity at 25°C		0.816
Viscosity at 25°C	mm <sup>2</sup> /s	1
Refractive index at 25°C		1.382
Surface tension at 25°C	mN/m	17.4
Flash point - closed cup	°C	30

## How to Use

*BRB DM 1* may be used alone or blended with other cosmetic fluids to provide a fluid base for a variety of cosmetic ingredients. It features good solubility in most anhydrous alcohols and in many cosmetic solvents.

Care should be taken when handling volatile fluids at temperatures 10 °C below the quoted flash point.

Figure 1 : Volatility of BRB low viscosity fluids at 25 °C

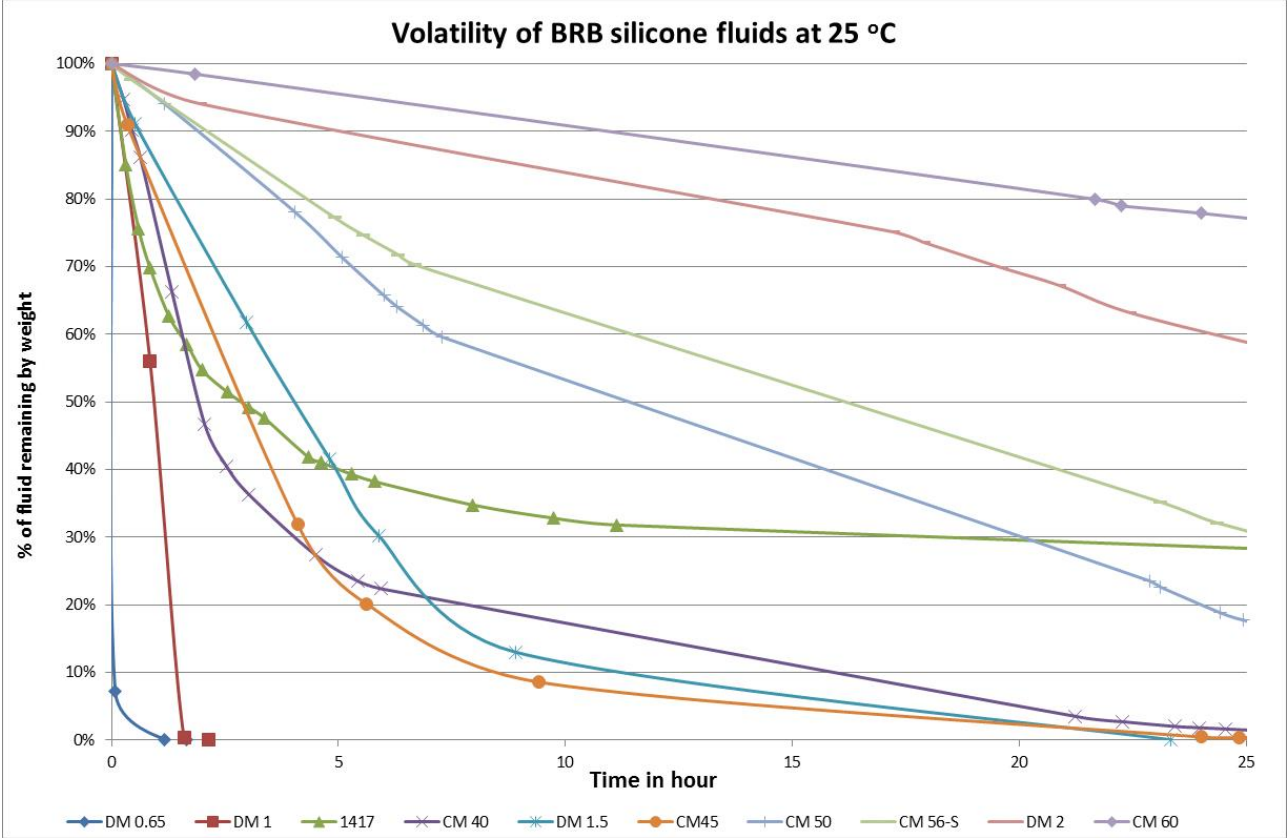


Table 1 : Heat of vaporization

Fluid	Hvap (kJ/kg)
Water	2257
Ethanol	846
BRB CM 40 (D4)	175
BRB CM 50 (D5)	163
BRB DM 0.65	192
BRB DM 1	194
BRB DM 2	150

The heat of vaporization in Table 1 is directly related to the amount of energy which is extracted from the surface of the skin and perceived as cooling as the substance is volatilized. As the volatile siloxanes evaporate they remove very little heat from the skin compared to alcohols or water avoiding this potentially undesirable cooling effect.

Table 2 : Solubility profile of BRB low viscosity silicone fluid

Type of material	Material	BRB DM 0.65	BRB DM 1	BRB DM 1.5	BRB DM 2
Highly Polar	Water	I	I	I	I
Alcohol & glycol	Ethanol	S	PS	PS	PS
	Glycerin	I	I	I	I
Sunscreen	OMC (Ethylhexyl Methoxycinnamate)	S	S	PS	PS
Hydrocarbon	Mineral oil	S	S	S	S
	Isopar M	S	S	S	S
	Isohexadecane	S	S	S	S
Vegetable oil	Almond oil	S	S	S	S
	Castor oil	I	I	I	I
	Jojoba oil	S	S	S	S
	Sunflower oil	S	S	S	S
Ester	Isopropyl Myristate	S	S	S	S
	C12-15 Alkyl Benzoate	S	S	S	S
	Capric/Caprylic Triglycerides	S	S	S	S
	Decyl Oleate	S	S	S	S
Silicone	Silicone oil 350cst	S	S	S	S
	Phenyl Trimethicone	S	S	S	S
	Cetyl Dimethicone	S	S	S	S

S= Soluble at all ratio

I= Insoluble at all ratio

PS= Soluble at certain ratio

A Product Safety Data Sheet should be obtained from your BRB office prior to use.

ATTENTION: Before handling, read product information, Product Safety Data Sheets and container labels for safe use, and any physical and/or health hazard information.

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