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Guide Table

BRB Dimethicone overview

BRB International BV

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BRB Dimethicone Overview

INCI Name: Dimethicone

Description

Dimethicones are linear silicone fluids with a variety number of viscosities available.

Application

Dimethicones are mainly used as emollients in all types of Personal Care applications (Skin Care, Antiperspirant & Deodorants, Sun Care, Hair Care and Color Cosmetics).

Features

- Volatile dimethicones (0.65 – 2 cSt): soft, dry silky feel, with no residue, no cooling effect
- Low viscosity dimethicones (5 – 20 cSt): excellent emollients, improving spreadability
- Middle viscosity dimethicones (50 – 5000 cSt): excellent emollients, improving spreadability
- High viscosity dimethicones (10.000 – 100.000 cSt): exceptional conditioning agents

Typical Data

Product name	Viscosity, cSt	Flashpoint, °C COC	Freezing point, °C	Specific gravity, 25 °C	Surface tension, mN/m	Refrac. index at 25 °C
BRB DM 0.65	0,65	-4	-67	0,760	15,9	1,375
BRB DM 1	1	34	-85	0,816	17,4	1,382
BRB DM 1,5	1,5	57	-76	0,851	18,0	1,387
BRB DM 2	2	87	-90	0,872	18,7	1,389
BRB DM 3	3	100	-70	0,900	19,2	1,392
BRB DM 5	5	136	-65	0,915	19,7	1,396
BRB DM 6	6	145	-65	0,925	19,8	1,397
BRB DM 10	10	162	-65	0,930	20,1	1,399
BRB DM 20	20	230	-60	0,950	20,6	1,400
BRB DM 50	50	280	-55	0,959	20,7	1,402
BRB DM 100	100	>300	-55	0,965	20,9	1,403
BRB DM 200	200	>300	-50	0,970	21,0	1,403
BRB DM 350	350	>300	-50	0,970	21,1	1,403
BRB DM 500	500	>300	-50	0,970	21,1	1,403
BRB DM 1000	1000	>300	-50	0,970	21,2	1,403
BRB DM 2000	2000	>300	-50	0,970	21,2	1,403
BRB DM 5000	5000	>300	-50	0,975	21,4	1,403
BRB DM 10.000	10.000	>300	-50	0,975	21,5	1,403
BRB DM 12.500	12.500	>300	-50	0,975	21,5	1,403
BRB DM 30.000	30.000	>320	-50	0,975	21,5	1,403
BRB DM 60.000	60.000	>300	-50	0,975	21,5	1,403
BRB DM 100.000	100.000	>300	-50	0,976	21,5	1,404

INCI

BRB Dimethicone has following INCI:

BRB DM 0.65: Disiloxane

BRB DM 1: Trisiloxane

All others: Dimethicone

Toxicological information

BRB Dimethicone has been the subject of extensive toxicological studies. The oil is non-toxic and non-irritating. A temporary discomfort to the eyes may occur due to the hydrophable properties. The oil is approved as a food additive and/or for use in food contact in most countries of the world.

Amongst others main US.FDA regulations concerned are:

173.340 (formerly 121.1099), 175.105 (121.2520), 175.300(121.2514), 167.170 (121.2526), 176.180 (121.2571), 167.200 (121.2557), 176.210 (121.2519), 177.1210 (121.2550), 177.2280 (121.2500), 178.3570 (121.2553), 178.3910 (121.2531), 181.28 (121.2001).

Please be advised that BRB Dimethicone are dimethylpolysiloxanes, and are listed under that terminology in a number of FDA regulations.

It must be noted that the status of this product depends upon the particular viscosity grade and amount employed, the nature of the use and, in some cases, the ability of a end product in which it is used to pass extractives limitations which vary according to the food-contacting conditions of the end use. The problem of meeting any pertinent extractives limitations must be left in the hands of our customers, for such limitations are in terms of total extractives and are affected by every component of the end product.

The comments made below are necessarily abbreviated, and all users should refer to the pertinent regulation for full details.

<u>Regulation</u>	<u>Application</u>	<u>Limitations</u> (Visc. or amount)
21 CFR 173.340	Direct add'n to non-standardized food as defoaming agent.	300-1050 Cs. Visc.10 ppm max. in most food, 0 ppm in milk
175.105	Defoamer in adhesives	No visc. limitations. Use no more than needed for effect
175.300	Resinous and polymeric coatings as release agent.	No less than 300 cSt. Total Extractives limitations; no less than 100 cSt. limited to metal substrates.
176.170	Component of paper, paperboard in contact with aqueous or fatty foods.	At least 100 cSt., total extractives limitations.
176.180	Paper, paperboard in contact with dry food.	At least 100 cSt.
176.200	Defoaming agent for coatings.	No visc. limitations, Use no more than needed.

<u>Regulation</u> <u>21 CFR</u>	<u>Application</u>	<u>Limitations</u> (Visc. or amount)
176.210	Defoaming agent in mfr.paper of paperboard	No visc. limitations, Use no more than needed.
177.1210	Release agent in closures with sealing gaskets for food containers.	No less than 300 cSt. Total extractives limitations
177.1520	Release agent in the production of polyolefins	Minimum 300 cSt. visc. Finished product must meet any applicable extractives limitations.
177.2260	For fiber finishing in resin-bonded filters	No visc. limitations, total Extractives limitations.
178.3120	Defoaming agent in animal glue	No visc. limitation, use no more than needed.
178.3570	Lubricant on machinery	Visc. greater than 300 cSt. no more than 1 ppm imparted to food.
178.3910	Forming lubricant in manufacturing metallic articles.	300-1050 cSt. visc., residue no more than 0.2 mg/sq. In.
181.28	Release agent in food packaging materials.	300- 1050 cSt. visc. Least amount possible.

Limitations

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



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