

Silicon oil

Description

Optimal Products Silicone oils are polydimethylsiloxanes available in different viscosities.

Application

- Release agent.
Used purely or as a part of a compounded formula provides a non-toxic, non-carbonising mould release for rubber, plastics and metal die-castings.
- Anti-foam agent.
Very small quantities of the fluid are very effective as a foam control agent, especially in non aqueous systems.
- Mechanical fluid.
The very high viscosity-index, the thermal and chemical stability, shear-breakdown resistance and the rubber compatibility as well as the compressibility make this fluid outstanding for mechanical and hydraulic uses.
- Lubricant.
The fluid provides excellent lubricating properties for most plastic and elastomeric surfaces. Lubricity with metals depends upon the possible combinations such as P.T.F.E., MoS₂ and other lubricity improvers.
- In polishes and chemical specialties.
Silicone oil is used in most automobile and furniture polishes for its ease of application, high gloss with a minimum rubbing and durable water repellent film.
- In electrical and electronic equipment. Because of the excellent dielectric properties silicone oil is widely used as an insulating and damping fluid.

Features

- Little change in physical properties over a wide temperature range.
- The fluids are thermally stable at 150° C for extended time intervals.
- Excellent water repellency.
- Low surface tension. The fluid readily wets clean surfaces to impart water repellency and release characteristics.
- Low toxicity.

Benefits

- Foam inhibitor and defoamer
- Imparts soft silky feel to the hair
- Ensures smooth wet shaving foams
- Nonirritant to skin

Typical Data

Viscosity, Cst	Flashpoint, °C COC	Freezing point, °C	Specific gravity, 25 °C	Surface tension, mN/m	Refrac. index at 25 °C
0,65	-4	-67	0,760	15,9	1,375
1	40	-85	0,816	17,4	1,382
2	48	-90	0,830	18,1	1,387
3	62	-100	0,900	18,9	1,392
5	136	-100	0,910	19,7	1,397
10	162	-65	0,930	20,1	1,399
20	230	-60	0,950	20,6	1,400
50	280	-55	0,959	20,7	1,402
100	>300	-55	0,965	20,9	1,403
200	>300	-50	0,970	21,0	1,403
300	>300	-50	0,970	21,1	1,403
350	>300	-50	0,970	21,1	1,403
500	>300	-50	0,970	21,1	1,403
1000	>300	-50	0,970	21,2	1,403
5000	>300	-50	0,975	21,4	1,403
10000	>300	-50	0,975	21,5	1,403
12500	>300	-50	0,975	21,5	1,403
30000	>320	-50	0,975	21,5	1,403
60000	>300	-50	0,975	21,5	1,403
100000	>300	-50	0,976	21,5	1,404
300000	>300	-45	0,976	21,5	1,404
500000	>300	-40	0,976	21,5	1,404
1000000	>300	-40	0,976	21,5	1,404

Shelf life and storage

Silicone Oil has an unlimited useful life when stored at ambient temperatures. The product does not freeze and there are no restrictions on storage.

A Product Safety Data Sheet should be obtained from your Optimal Products 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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