Translucent Silicone Grease
8462 Technical Data Sheet

Description

The 8462 *Translucent Silicone Grease* is a water repelling (hydrophobic), non-melting, and lubricating dielectric grease that provides superior corrosion and arcing resistance for connectors. It is widely applicable because it is safe for most metals, rubbers, plastics, and elastomers. As well, it is usable in many environments due to its high resistance and stability with respect to extreme cold, heat, humidity, and other extreme exposure conditions like high voltages. Voltage arcing can be prevented due to its excellent dielectric properties. Further, because it repels water, it provides excellent oxidation resistance for contacts and relays.

Benefits and Features

- **Stable over wide temperature range and conditions—Non-melting**
- **Excellent electrical insulator—High dielectric strength**
- **Usable for incidental food contact** (Conforms to 21 CFR section 178.3570)
- **Odorless and non-toxic**
- **Corrosion inhibitor**

ENVIRONMENT
RoHS Compliant
Zero-VOC

Usage Parameters

Properties	*Value*
Shelf Life [a)]	5 y

a) Reported shelf life assumes room temperature storage and unopened container.

Temperature Ranges

Properties	*Value*
Constant Service Temperature	-50 to 250 °C [-58 to 482 °F]
Storage Temperature Limits [b)]	0 to 10 °C [32 to 50 °F]

b) Room temperature is acceptable. Cold storage avoids material separation and settling. If storing at 25 °C, mix thoroughly to disperse filler before use.

Principal Components

Name	***CAS Number***
Dimethylpolysioxane	*63148-62-9*
Amorphous silica	*7631-86-9*

Date: 23 September 2016 / Ver. 1.04

Properties

Electrical Properties	*Method*	*Value*
Dielectric Strength @0.01"	ASTM D 149	500 V/mil [19.7 kV/mm]
Volume Resistivity	ASTM D 257	1.1×10^{13} Ω·cm
Volume Conductance	"	9.1×10^{-15} S/cm
Dielectric Dissipation Factor	ASTM D 150	0.0010
Dielectric Constant	ASTM D 150	2.5
Arc Resistance		120 s

Thermal Properties	*Method*	*Value*
Thermal Conductivity		0.16 W/(m·K)
Evaporation after 24 h @200 °C [392 °F]		2%

Grease Properties	*Method*	*Value*
Penetration, Worked (x60)		200–310
Bleed after 24 h		1
Dropping Point		None

Physical Properties	*Method*	*Value*
Base Material		Silicone Oil
Filler		Silica
Color	Visual	Translucent
Viscosity	Brookfield	Thixotropic paste
Specific Gravity		0.98
Odor		None
Water Washout	ASTM D 1264	0.86%
Water Resistant		Excellent
Corrosion Resistant		Excellent

Compatibility

Chemical—It is compatible with a wide variety of metal, rubber, and plastic substances such as ignition switches, valve seats, O-rings, sealing rings, transformer connectors, and cables systems.

Storage

Store between 0 and 10 °C [23 and 104 °F] in dry area to minimize settling. You many also store this product at higher temperatures but this can cause settling. If settling occurs, mix thoroughly until the product is homogeneous again.

Health, Safety, and Environmental Awareness

Please see the 8462 **Safety Data Sheet** (SDS) for greater detail on transportation, storage, handling and other security guidelines.

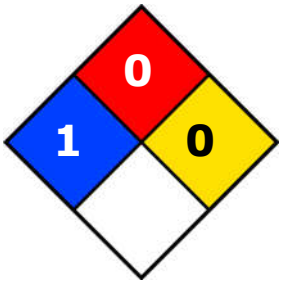
Environmental Impact: The volatile organic content is 0.0% by WHMIS and European standards.

Health and Safety: The 8462 may cause a mild skin or eye irritation.

HMIS® RATING

HEALTH:	**1**
FLAMMABILITY:	**0**
PHYSICAL HAZARD:	**0**
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Application Instructions

The performance of the 8462 Silicone Grease depends on surface preparation. Improperly prepared contact surfaces can degrade the oxidation protection, dielectric properties, and lubrication characteristics by trapping contaminants between the surface and the grease. The thickness and coverage should be adjusted to meet your needs.

Prerequisites

- Clean and dry the surface of the substrate to remove other oils and greases, as well as dust, water, solvents, or any other contaminants.
- (Optional) Wear gloves to avoid contaminating the surface and to avoid possible skin irritation.

Equipment

- Lint free cloth (for cleaning contact and for wiping excess residue)
- Spatula or stick application tools (sized appropriately for your application)
- Isopropyl alcohol or other residue-free organic solvents (for cleaning)

NOTE: Thoroughly clean oil-based cleaners (like WD-40) that are designed to leave a film on the metal surface.

To apply the paste

1. Wipe the contact with a lint-free cloth.
2. Clean the contacts with isopropyl alcohol or other non-oil based cleaner.
3. Once dry, apply the paste with the application tool to the contact, ensuring adequate coverage and desired thickness.

Packaging and Supporting Products

Cat. No.	*Packaging*	*Net Volume*		*Net Weight*		*Packaging Weight*	
8462-85ML	Tube	87.9 mL	2.97 fl oz	87 g	3.06 oz	0.12 kg	0.26 lb
8462-1P	Jar	468 mL	15.8 fl oz	462 g	1.02 lb	0.54	1.2 lb
8462-1G	Pail	3.78 L	1.0 gal	3.74 kg	8.25 lb	TBD	TBD
Contact MG Chemicals if custom packaging or sizes are required							

TBD = To be determined

Supporting Products

- *Thinner 1*: Cat. No. 4351-1L
- *Isopropyl Alcohol*: Cat. No. 824-1L

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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Warranty

M.G. Chemicals Ltd. warranties this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

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