Carbon Conductive Grease
846 Technical Data Sheet

Description

The 846 Carbon Conductive Grease is an electrically conductive silicone grease for improving electrical connections between sliding surfaces and parts. The 846 grease is designed to lubricate while maintaining good grounding connection. It inhibits corrosion and repels humidity providing an economical way to protect switches or to bridge the gap between contacting surfaces for EMI shielding applications. It is also great for providing electrical continuity between irregular or pitted surfaces.

Benefits & Features

- **Improves electrical connections between irregular surfaces.**
- **Extends the life of contacts**
- **Safe on plastics**
- **Ensures electrical contact between loose or vibrating parts and small gaps**
- **Volume Resistivity of 117 Ω·cm**

Application and Storage Conditions

Properties	*Value*
Shelf Life	5 year
Storage Temperature Limits	-40 to +40 °C [-40 to +104°F]

Temperature Service Ranges

Properties	*Value*
Service Temperature	-50 to +200 °C [-58 to +392 °F]
Maximum coverage for 25 μm [1.0 mil] thickness[c)]	<28 600 cm^2 [<30 ft^2]

a) Theoretical coverage per 80g tube assuming 100% transfer efficiency.

Principal Components

Name	***CAS Number***
Polydimethylsiloxane	*63148-62-9*
Carbon Black	*1333-86-4*

Properties

Electric Properties	*Value*
Volume resistivity(ρ_v)	117 Ω·cm
Volume Conductivity (σ_v)	8.57 mS/cm

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Physical Properties	*Value*
Color	Black
Odor	Odorless
Density @25 °C	1.1 g/mL
Viscosity @25 °C [77 °F]	333 to 368 cSt
Flash Point[a)]	302°C [575 °F]
Lubricant	Yes
Corrosive	No
%Solids	99.6%
VOC (Volatile Organic Compound)	0%

a) Value based on silicone fluid component

Storage

Store between -40 °C and +40 °C [40°F and 104 °F] in dry area.

Health, Safety, and Environmental Awareness

Please see the 846 **Material Safety Data Sheet** (MSDS) for greater details on transportation, storage, handling and other security guidelines.

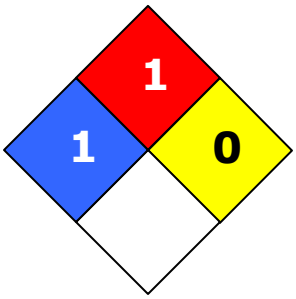
Environmental Impact: The volatile organic content is 0% by WHMIS and European standards.

Health and Safety: Wear safety glasses and disposable gloves to avoid exposures.

HMIS® RATING

HEALTH:	**1**
FLAMMABILITY:	**1**
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 conductive grease performance depends on mainly on surface preparation. Improperly prepared contact surfaces can degrade the paste's stability, conductivity, and lubrication characteristics. While the thickness and coverage are also important, the application method itself can easily be adjusted according to performance and application needs.

Prerequisites

- Wear gloves and protective clothing (See 846 MSDS). This product is extremely messy.
- Clean and dry the surface of the substrate to remove other oils and greases, as well as dust, water, solvents, or any other contaminants.
  Recommendations: Use MG 401B Nutrol Control Cleaner or MG 824 Isopropyl Alcohol

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.

NOTE: Avoid oil-based cleaners (like WD-40) that are designed to leave a film on the metal surface. Contaminant oil or grease films may act like barriers reducing the electrical contact between the conductive paste and the metallic substrate.

To apply the grease

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.

ATTENTION!

- DO NOT apply or smooth grease with bare finger. Carbon black grease is hard to clean and may transfer to other surfaces by touch. Further, you may introduce contaminants that degrade the overall performance of the grease.

Packaging and Supporting Products

Cat. No.	Form	Net Volume		Net Weight		Shipping Weight	
846-80G	Grease	73 mL	2.5 fl oz	0.08 kg	0.17 lb	0.7 kg [a)]	1.5lb [a)]
846-1P	Grease	454 mL	1 pint	0.5 kg	1.1 lb	0.55 kg	1.2 lb

a) Pack of 6 tubes

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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