

Description

The 8463 *Silver Conductive Grease* is a grease that is produced with an extremely temperature stable silicone oil for use between sliding surfaces. The 8463 grease lubricates and helps discharge static build up, conducts heat, and protects against corrosion.

Typical applications include lubrication of switches or circuit breakers, heat dissipation, and static ground on seals and O-rings.

Benefits & Features

- **Excellent High temperature stability**
- **Safe on plastics**

Application and Storage Conditions

<i>Properties</i>	<i>Value</i>
Shelf Life	5 year
Storage Temperature Limits	-10 to +40 °C [14 to +104°F]

Temperature Service Ranges

<i>Properties</i>	<i>Value</i>
Service Temperature	-50 to +200 °C [-58 to +392 °F]
Maximum coverage for 250 µm [10 mil] thickness ^{a)}	<120 cm ² [<18 in ²]

a) Theoretical coverage per 3 mL [0.10 fl oz] assuming 100% transfer efficiency.

Principal Components

Name	CAS Number
Silicone fluid	63148-62-9
Carbon Black (conductive filler)	1333-86-4
Silver (conductive filler)	7440-22-4

Properties

<i>Conductivity Properties</i>	<i>Method</i>	<i>Value</i>
Volume resistivity (ρ_v) Volume Conductivity (σ_v) Thermal Conductivity @25 °C ^{a)}	ASTM E 1461	$1.1 \times 10^5 \Omega \cdot \text{cm}$ $9.0 \times 10^{-6} \text{ S/cm}$ $\sim 0.45 \text{ W/(m}\cdot\text{K)}$

a) Preliminary results based on two thicknesses

<i>Physical Properties</i>	<i>Value</i>
Color	Silver
Odor	Odorless
Density @25 °C	2.29 g/mL
Consistency	Paste
Corrosion on Copper	none
Moisture Resistance	Excellent
Chemical Resistance	Excellent
Lubrication Properties	Excellent
Protection from Oxidation	Excellent

<i>Synthetic Oil Properties</i>	<i>Value</i>
Boiling Point	>200 °C [>392 °F]
Flash Point	>300 °C [572 °F]

Storage

Store between -10 °C and +40 °C [14°F and 104 °F] in dry area.

Health, Safety, and Environmental Awareness

Please see the 8463 **Material Safety Data Sheet** (MSDS) for greater details on transportation, storage, handling and other security guidelines.

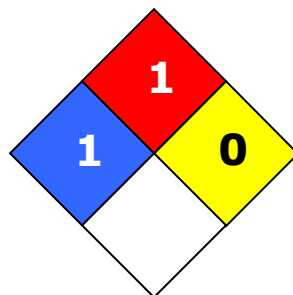
Environmental Impact: The volatile organic content is 30%. The product is classified as a marine pollutant.

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 grease performance depends on mainly on surface preparation. Improperly prepared contact surfaces can degrade the grease 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 8463 MSDS); this product is 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 surface with a lint-free cloth
2. Clean the surface with isopropyl alcohol or other non-oil based cleaner.
3. Once dry, dispense grease onto the surface.

ATTENTION!

- DO NOT apply or smooth grease with bare finger. Greases with carbon black are 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

<i>Cat. No.</i>	<i>Form</i>	<i>Net Volume</i>	<i>Net Weight</i>
8463-7g	Grease	3 mL 0.10 fl oz	7 g 0.22 oz



ISO 9001 Registered Quality System.
Burlington, Ontario, Canada QMI File # 004008

Silver Conductive Grease 8463 Technical Data Sheet

8463

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. warrants 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.

Disclaimer

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