Static Dissipative, Anti-Corrosive Grease 8464 Technical Data Sheet

Description

The 8464 *Static Dissipative, Anti-Corrosive Grease* is a non-bleeding grease that is produced with an extremely temperature stable, low-volatility synthetic oil. This grease inhibits corrosion and has easily passed a 1000 h salt spray corrosion test. It has a low weight loss after extended periods at high temperature and suggests a very high vacuum stability.

Applications & Usages

The 8464 grease lubricates and helps discharge static build up, and protects against corrosion.

Features and Benefits

- **Designed to meet aerospace specifications for anti-corrosive greases**
- **Excellent high temperature stability**
- **Non-bleeding—oil separation resistant**
- **Separation resistant**
- **Silicone free**
- **Safe on plastics**

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	-68 to 165 °C [-90 to 329 °F]
Storage Temperature Limits [b)]	-10 to 40 °C [14 to 104 °F]

a) The product must stay within the storage temperature limits stated

Principal Components

Name	***CAS Number***
Synthetic oil	*proprietary*
Zinc oxide	*1314-13-2*
Aluminum oxide	*1344-28-1*
Carbon Black (conductive filler)	*1333-86-4*
Graphite (conductive filler)	*7782-42-5*

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Properties

Electrical Properties	*Method*	*Value*
Volume Resistivity (ρ_v) Volume Conductivity (σ_v)	ASTM D 257 "	1.0×10^{7} Ω·cm 1.0×10^{-7} S/cm

Grease Properties	*Method*	*Value*
Thermal Conductivity @25 °C [77 °F]	ASTM E 1461	0.92 W/(m·K)

Grease Properties	*Method*	*Value*
Evaporation Loss, 44 h @25 °C [77 °F] 44 h @204 °C [399 °F] 500 h @121 °C [250 °F] Oil Separation [a] Dropping Point Salt Spray Corrosion Resistance [b]	 Boeing Test ASTM D 2265 ASTM B117	0% <7.0% <1.5% Pass >300 °C [>572 °F] Pass

Physical Properties	*Method*	*Value*
Color Odor Density @25 °C [77 °F] Viscosity Lubricant Bleed Resistant Corrosion Resistant VOC (Volatile Organic Compound)	 Visual ASTM D 1475	Dark grey Odorless 2.11 g/mL Thixotropic paste Yes Yes Yes 30%

a) No separation after thermal cycling ten cycles from -40 to 121 °C.
b) Exposed for 1 000 hours in 5% salt spray.

Synthetic Oil Properties	*Method*	*Value*
Oil Viscosity Index [b] Pour Point Fire Point [c] Flash Point [d]	ASTM D 2270 ASTM D 92 ASTM D 92	>110 °C [>230 °F] ≥-34 °C [≥-29 °F] 321 °C [610 °F] >290 °C [>554 °F]

Note: Values based on synthetic oil component only
b) High oil viscosity index of more than a 100 indicate small oil viscosity change with temperature.
c) Temperature at which oil will continue to burn for at least 5 seconds after ignition with an open flame.
d) Cleveland open cup method.

Storage

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

Health, Safety, and Environmental Awareness

Please see the 8464 **Safety Data Sheet** (SDS) for greater details on transportation, storage, handling and other security guidelines.

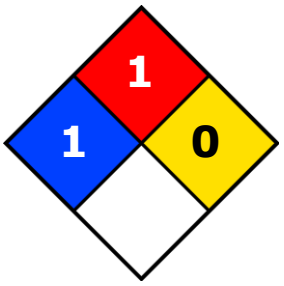
Environmental Impact: The VOC (Volatile Organic Compound) content is 30%. The product is classified as a marine pollutant.

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 conductive paste performance depends on mainly on surface preparation. Improperly prepared contact surfaces can degrade the pastes' 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 8464 SDS). 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
  Recommendation: Use 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. Carbon black 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.	*Packaging*	*Net Volume*		*Net Weight*	
8464-1 (8464-85ML)	Tube	85 mL	2.87 fl oz	178 g	6.29 oz
8464-2 (8464-1P)	Jar	468 mL	15.8 fl oz	985 g	34.7 oz
Contact MG Chemicals if custom packaging or sizes are required					

Supporting Products

- *Isopropyl Alcohol*: Cat. No.824

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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