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. Low weight loss after extended periods at high temperature suggests very high vacuum stability.

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

Benefits & Features

- **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**

Application and Storage Conditions

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

Temperature Service Ranges

Properties	*Value*
Service Temperature	-68 to +165 °C [-90 to +329 °F]
Maximum coverage for 250 μm [10 mil] thickness a)	<18 600 cm^2 [<20 ft^2]

a) Theoretical coverage per 473 mL [1 pint] assuming 100% transfer efficiency.

Principal Components

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

Rev. Date: 09 July 2015 / Ver. 1.01

Properties

Conductivity Properties	*Method*	*Value*
Resistivity (2 point)		<100 000 Ω
Volume resistivity(ρ_v)		*test in progress*
Volume Conductivity (σ_v)		"
Thermal Conductivity @25 °C	ASTM E 1461	0.92 W/(m·K)

a) Results coming soon.

Physical Properties	*Method*	*Value*
Color		Dark grey
Odor		Odorless
Density @25 °C		2.17 g/mL
Viscosity @25 °C [77 °F]	a)	3 100 000 cP [1 400 000 cSt]
Drop Point	ASTM D 2265	>300°C [>572 °F]
Cone Penetration	ASTM D 217	*test in progress*
Oil Separation (Boeing test)	Thermal Cycling b)	Passed: no separation
Corrosion Resistance Test	ASTM B117	Passed
Filler		Zinc Oxide/Aluminum Oxide/Carbon/Graphite
%Evaporation loss @ 25 °C, 44 h		0.0% (wt)
%Evaporation loss @ 204 °C, 44 h		<7.0% (wt)
%Evaporation loss @ 121 °C, 500 h		<1.5% (wt)
Bleed resistant		Yes

b) Brookfield viscometer @ 1 rpm with spindle LV4
b) After ten cycles from -40 °C to 121 °C.
c) According to WHIMS regulation

Synthetic Oil Properties	*Method*	*Value*
Oil viscosity index a)	ASTM D 2270	>110
Fire Point b)	ASTM D 92	321 °C [559 °F]
Flash Point	ASTD	>290 °C [550 °F]

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

Storage

Store between -10 °C and +40 °C [14°F 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.

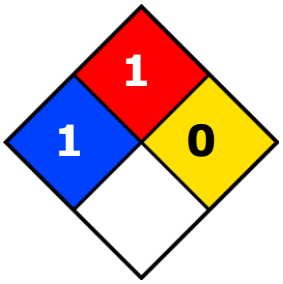
Environmental Impact: The volatile organic content is 30%. The product is classified as a marine pollutant.

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 8464 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. 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*	
8464-85ML	Grease	85 mL	2.8 fl oz	178 g	5.73 oz
8464-1P	Grease	468 mL	15.8 fl oz	983 g	31.6 oz
Contact MG Chemicals if custom packaging or sizes are required					

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.

Email: support@mgchemicals.com

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Warranty

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