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8481 **PREMIUM CARBON CONDUCTIVE GREASE**

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: 8481

Other Means of Identification: Premium Carbon Conductive Grease

Related Part # 8481-1, 8481-2, 8481-3, 8481-80G, 8481-1P

Recommended Use and Restriction on Use

Use: Improves connections between electrical contacts without oil bleeding.

Uses Advised Against: Do not process in a manner the material to form mist or dust

Details of Manufacturer or Importer

Manufacturer
MG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA

☎ +1-800-340-0772
FAX +1-800-340-0773
E-MAIL support@mgchemicals.com
WEB www.mgchemicals.com

MG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA

☎ +1-905-331-1396
FAX +1-905-331-2682
E-MAIL info@mgchemicals.com

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA—Call CHEMTREC at ***+1-800-424-9300***

For emergencies involving the transport of dangerous goods; 24/7 service
CANADA—Call CANUTEC collect at ***+1-613-996-6666*** or ****666*** on cellular phones

Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Criteria	Category	Signal Word	Pictograms
Hazardous to the Aquatic Environment Chronic	3	None	None

Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

Label Elements

Signal Word	*No signal word*
Pictograms	**Hazard Statements**
No Symbol Mandated	H412: Harmful to aquatic life with long lasting effects
Prevention	**Precautionary Statements**
P273	Avoid release to the environment.
Disposal	**Precautionary Statements**
P501	Dispose of contents/container in accordance to local, regional, international regulations.

Hazards Not Otherwise Classified

Other Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
None	None	None	None

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
non-hazardous [a)]	synthetic oil	82%
1333-86-4	carbon black	12%
12001-85-3	naphthenic acids, zinc salts	2%
112945-52-5	amorphous fumed silica	0.3%

a) Non-hazardous component under the U.S. OSHA HazCom 2012, the Canadian Controlled Product Regulations (SOR 88-66)

Section 4: First Aid Measures

Exposure Condition	*GHS Code/Symptoms/Precautionary Statements*
IF INHALED	P304 + P340
Immediate Symptoms	*low toxicity: no symptoms known or expected*
Response	Remove person to fresh air and keep comfortable for breathing.
IF IN EYES	P305 + P351 + P338
Immediate Symptoms	*low toxicity: redness, mild irritation*
Response	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN	P302 + P352, P332 + P313
Immediate Symptoms	*low toxicity: mild skin irritation*
Response	Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.
IF SWALLOWED	P301 + P330 + P331
Immediate Symptoms	*low toxicity: no symptoms known or expected*
Response	Rinse mouth. Do NOT induce vomiting.

Section 5: Fire Fighting Measures

Extinguishing Media	Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Do not use water jet.
Specific Hazards	Not flammable or combustible, but burns if involved in a fire. Avoid breathing combustion products.
Combustion Products	Produces carbon oxides (CO, CO_2), oxide of sulfur, and smoke.
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

Section 6: Accidental Release Measures

Personal Protection	Use personal protection recommended in Section 8.
Precautions for Response	Avoid breathing fumes. Remove or keep away all sources of extreme heat.
Environmental Precautions	Prevent spill from entering drains and waterways.
Containment Methods	Not applicable
Cleaning Methods	Collect paste in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container Wipe up further residue with paper towel and place dirty towels in container. Wash spill area with soap and water to remove the last traces of residue.
Disposal Methods	Dispose of spill waste according to Section 13.

Section 7: Handling and Storage

Prevention	Avoid breathing fumes.
	Avoid release to the environment.
Handling	Wear protective gloves, eye protection.
	Wash hands thoroughly after handling.
Storage	No special storage instructions needed.
	RECOMMENDATION: Keep in a dry and clean area, away from incompatible substances.

Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
carbon black [a)]	ACGIH	3.5 mg/m^3	Not established
	U.S.A. OSHA PEL	3.5 mg/m^3	Not established
	Canada AB	3.5 mg/m^3	Not established
	Canada BC	3 mg/m^3	Not established
	Canada ON	3.5 mg/m^3	Not established
	Canada QC	3.5 mg/m^3	Not established

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH[1], OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS database[2] and from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Respirable airborne particles

Engineering Controls

Ventilation

Keep airborne concentrations below the occupational exposure limits (OEL).

Because the carbon black is bound to the grease matrix, it does not present an airborne hazard under normal use. Ensure adequate ventilation if the product is mechanically misted or aerosolized.

Personal Protective Equipment

Eye protection

Wear appropriate protective eyeglasses or chemical safety goggles.

RECOMMENDATION: Ensure that glasses have side shields for lateral protection.

Skin Protection

For likely contacts, use of protective butyl rubber or other chemically resistant gloves.

Section continued on the next page

Respiratory Protection	In the unlikely event of exposure to mist, wear oil resistant or oil proof particulate respirators or filter masks. **RECOMMENDATION:** Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

Section 9: Physical and Chemical Properties

Physical State	Liquid	**Lower Flammability Limit**	Not available
Appearance	Black, grease	**Upper Flammability Limit**	Not available
Odor	Odorless	**Vapor Pressure @20 °C**	Not available
Odor Threshold	Not applicable	**Vapor Density**	Not available
pH	Not available	**Relative Density @25 °C**	1.03
Freezing/Melting Point	Not available	**Solubility in Water**	slightly soluble
Initial Boiling Point	Not available	**Partition Coefficient n-octanol/water**	Not available
Flash Point [a)]	285 °C [545 °F]	**Auto-ignition Temperature**	Not available
Evaporation Rate	Not available	**Decomposition Temperature**	Not available
Flammability (solid, gas)	Not applicable	**Viscosity @40 °C**	610 000 cSt

a) Cleveland Open Cup

Section 10: Stability and Reactivity

Reactivity	Not available
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Ignition sources, open flames, excessive heat, and incompatible substances
Incompatibilities	Strong oxidizing agents
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

Section 11: Toxicological Information

Summary of Effects and Symptoms by Routes of Exposure

Eyes	Low toxicity: may cause redness and mild irritation.
Skin	Low toxicity: may cause mild skin irritation.
Inhalation	None expected under normal conditions. When heated to extreme temperatures, product fumes or combustion gases may result in toxic gas emissions.
Ingestion	Low toxicity: no symptoms known or expected.
Chronic	Low toxicity: no symptoms known or expected.

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
carbon black	>15 g/kg Rat	>3 g/kg Rabbit	Not available
naphthenic acids, zinc salts	4 920 mg/kg Rat	>2 g/kg Rabbit	>11 600 mg/m^3 4 h Rat
amorphous fumed silica	3 160 mg/kg Rat	≥2 000 mg/kg Rabbit [b)]	Not available

Note: Toxicity data from the RTECS[2] and ECHA database were consulted. The data from supplier SDSs were also consulted.
b) Value from supplier SDS

Section continued on the next page

Other Toxicological Effects

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Sensitization (allergic reactions)	Based on available data, the classification criteria are not met.
Carcinogenicity (risk of cancer)	The carbon black [1333-86-4] is possibly carcinogenic by airborne routes of exposures under WHMIS. Because the carbon black is bound in the liquid mixture, it is not available as an airborne hazard (dust) under normal use. **Carbon Black [1333-86-4]** IARC Group 2B: Possibly carcinogenic to humans ACGIH A4: Not classified as a human carcinogen CA Prop 65: Listed as a carcinogen (airborne, as unbound particles of respirable size) NTP: Not listed
Reproductive Toxicity (risk to sex functions)	Based on available data, the classification criteria are not met.
Teratogenicity (risk of fetus malformation)	Based on available data, the classification criteria are not met.
Mutagenicity (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Classification criteria are not met: the mixture does not contain Class 1 aspiration toxicants and its viscosity is >20.5 mm^2/s at 40 °C

Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (http://echa.europa.eu), and other reliable sources.

The synthetic oil is the predominant component and has very low environmental toxicity. The acute fish toxicity has a LL50 (Lethal Loading Levels) >100 mg/L. Similarly, its Daphnia magna acute toxicity is given as EL50 (Effective Load) >100 mg/L. And for the algae, it occurs at a EL50 > 100 mg/L.

The minor zinc naphtenate component has a LC50 96 h of 1.1 mg/L for Oncorhynchus mykiss (rainbow trout), an EC50 of 4.6 mg/L Daphnia magna, and EC50 0.48 mg/L algae.

Based on available data, carbon black is not classified as environmental hazards according to GHS criteria.

Acute Ecotoxicity

Category 3

Harmful to aquatic life.

Chronic Ecotoxicity

Category 3

Harmful to aquatic life with long lasting effects.

Biodegradability

Not readily biodegradable

Section 13: Disposal Information

Dispose of contents in accordance with all local, regional, national, and international regulations.

Section 14: Transport Information

Ground

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations) and **US DOT 49 CFR** (Parts 100 to 185) **Regulations**.
Not Regulated

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Air

Refer to ICAO-IATA Dangerous Goods Regulations.
Not Regulated

Sea

Refer to IMDG Dangerous Goods Regulations.
Not Regulated

Section 15: Regulatory Information

Canada

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL/NDSL.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

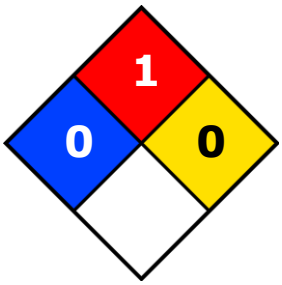
USA

Other Classifications

HMIS® RATING

HEALTH:	**0**
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)

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CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain products that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains 2% zinc compounds which is subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity)

This product contains carbon black, but it is bound and exposures during normal conditions of uses are below the Safe Harbor Threshold.

Europe

RoHS (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

Section 16: Other Information

SDS Prepared by	Regulatory Department
Revision Date	12 December 2018
Date of Preparation	15 November 2016
Reason for Changes:	Minor format changes to SDS.

Reference

1) ACGIH *2017 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices*, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2017).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

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Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
NOELR	No observable effect loading ratio
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

Technical Queries 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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