

None reported by the manufacturer.

2.7

Target Organs: **Eyes, Skin**

MATERIAL SAFETY DATA SHEET

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MSDS-E-M260Cp

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date:02/20/2011 03 **CHEMICAL RESPONSE CARD:** 1. PRODUCT IDENTIFICATION 1.1 Product Name: **DeoxIT® GREASE TYPE M260Cp RESPONSE** (Copper Particles) TEAM PPE: 1.2 Chemical Name: See ingredients listed in section 3 1.3 Synonyms: DeoxIT® Grease Type M260Cp, (Part No. M260Cp) WHMIS: 1.4 Trade Names: DeoxIT® Grease Type M260Cp 1.5 Product Use: Lubricant 1 **HEALTH:** 1.6 Manufacturer's Name: CAIG Laboratories, Inc. FLAMMABILITY: 0 1.7 Manufacturer's 0 12200 Thatcher Court, Poway, CA 92064-6876 PHYSICAL HAZARDS: 1.8 Business Phone: +1 (800)-224-4123 PERSONAL PROTECTION: В 1.9 Emergency Phone: CHEMTREC +1 (703) 527-3887/+1 (800) 424-9300 1.10 Other Product Names: Part No. M260-C2C Part No. M260-C1 Part No. M260-C8 Part No. M260-C35 2. HAZARD IDENTIFICATION 2.1 Hazard Identification: This product is classified as a hazardous substance but not as dangerous goods according to the classification criteria of NOHSC and ADG Code (Australia). DeoxIT® Grease Type M260Cp is non-volatile, non-hazardous and non-flammable. Not expected to cause prolonged or significant eye or skin irritation. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek immediate medical attention should an accident of this type occur. Contains petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommend mineral oil mist exposure limit. Heating can generate vapors that may cause respiratory irritation, nausea and headaches, irritating to the upper respiratory tract. Routes of Entry: 2.2 Inhalation: YES Absorption: Ingestion: NO 2.3 Effects of Exposure: Non-irritating when used as directed. Can cause irritation, tearing, and temporary blurred vision. EYES: SKIN: Non-irritating when used as directed. Prolonged or repeated contact may cause temporary contact dermatitis (localized redness or rash). INGESTION: Not probable. Small amounts if swallowed may cause temporary gastrointestinal irritation. INHALATION: Unlikely route of exposure. Should vapor concentrations exceed recommended exposure levels, they are temporary irritating to the eyes, nose, throat, and the respiratory tract; may cause temporary headaches and dizziness. Symptoms of Overexposure: Non-irritating when used as directed. Can cause temporary irritation, tearing, and blurred vision. EYES: SKIN: Non-irritating when used as directed. Prolonged or repeated contact may cause temporary contact dermatitis (localized redness or rash). INGESTION: Not probable. Small amounts if swallowed may cause temporary gastrointestinal irritation. INHALATION: Unlikely route of exposure. Should vapor concentrations exceed recommended exposure levels, they are temporary irritating to the eyes, nose, throat, and the respiratory tract; may cause headaches and dizziness. 2.5 Acute Health Effects: EYES: None reported when used as directed. Mild to moderate temporary irritation. SKIN: Unlikely when used as directed. Repeated exposure at site of contact may cause temporary contact dermatitis (localized redness or rash). INGESTION: Not probable. Small amount may cause temporary gastrointestinal irritation and central nervous system depression. INHALATION: Unlikely route of exposure. Should vapor concentrations exceed recommended exposure levels, they are temporary irritating to the eyes, nose, throat, and the respiratory tract; may cause headaches and dizziness. Chronic Health Effects: 2.6

NA = Not Available; ND = Not Determined; NE = Not Established; NF = Not Found; C = Ceiling Limit; See Section 16 for Additional Definitions of Terms Used. Note: All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-2010 format



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SKIN

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			3. CC	MPOSITI	ON & INC	FREDI	ENT IN	NFOF	RMA	ΙΟΝ					
									EXP	EXPOSURE LIMITS IN AIR (mg/m³)					
							ACC	GIH		NOHS	C		OSHA	١	
							pp	m		ppm			ppm		OTHER
	CHEMICAL NAME	(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	ES- TWA	ES- STEL	ES- PEAK	PEL	STEL	IDLH	
	UM GREASE LUBRIC TAINS ONE OR MC			:		≤ 99.0	NA	NA	NF	NF	NF	NA	NA	NA	
SOLV	LLATES (PETROLEU/ 'ENT-DEWAXED HE AFFINIC		64742-65-0	SE7500000	265-169-7	NA	5	10	NF	NF	NF	5	10	NA	RESPIRABLI OIL MIST
	OUAL OILS (PETROL 'ENT-REFINED	IUM)	64742-01-4	NA	265-101-6	NA	5-	5- 10	NF	NF	NF	5	10	NA	RESPIRABLE OIL MIST
SOLV	LLATES (PETROLEU <i>N</i> 'ENT-DEWAXED HE AFFINIC		64741-88-4		265-090-8	NA	5	10	NF	NF	NF	5	10		RESPIRABLE OIL MIST
ZINC	ALKYLDITHIOPHO	SPHATE	68649-42-3	NA	272-028-3	NA	NA	NA	NF	NF	NF	NA	NA	NA	
COP	PER		7440-50-8	GL5325000	231-159-6	≤ 8.4	0.2 NA	NA	A NF	NF	NF	0.1	NA	100	FUME
Deox	(IT® PROPRIETARY I	MIX	TRADE SECRET	UNK	UNK	NA	NF	NF	NF	NF	NF	NA	NA	NA	
				4.	FIRST AIR) MFA	SURE	S							
4.1	4. FIRST AID MEASURES First Aid:														
	EYES: As a precaution remove contact lenses if worn and flush eyes thoroughly with copious amounts of water for 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek immediate attention.														
SKIN: Remove contaminated clothing. Use a waterless hand cleaner, mineral oil, or petroleum jelly to remove Then wash the skin with soap and water If irritation persists, seek prompt medical attention. contaminated clothing until after it has been properly cleaned.															
	INGESTION:		ot induce vomi ediately.	ting! As a pr	recaution giv	e the pe	erson a	glass o	of wate	er or n	nil to d	lrink a	nd ge	t medi	al attention
	INHALATION:	imm	or inhalation un ediately remove ediate medical	e victim to fre	esh air at ond	ce. If b	eathing	is diffi	icult, a	dmini					
4.2	Medical Conditions A								HE	ALTH					1
	None reported I	by the n	nanutacturer.						FL/	AM N	NABII	LITY			0
											:AL F		\RDS		0
											CTIV				
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Upper Explosive Limit (UEL):

5. FIREFIGHTING MEASURES

Flashpoint & Method:

> 244 °C (471 °F) COC (Cleveland Open Cup)

5.2 Autoignition Temperature: Flammability Limits:

5.3

5.5

5 4 Fire & Explosion Hazards:

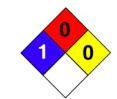
Carbon dioxide, carbon monoxide, hydrocarbons.

Extinguishing Methods: CO₂, Alcohol foam, Dry Chemical, Water Fog

5.6 Firefighting Procedures

> Wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing. Use a water spray to cool containers involved in fire. Do not use direct water stream. Container storage areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. Keep containers cool until well after the fire is out to prevent rupture. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway.

Lower Explosive Limit (LEL):



ND

6. ACCIDENTAL RELEASE MEASURES

Secure spill area and deny entry to all unprotected individuals. Individuals involved in the cleanup should wear appropriate personal protective equipment. Area may become slippery. Absorb product onto porous material, such as sand, clay, diatomaceous earth or commercial absorbent material. Place into leak-proof, approved containers. If necessary, cover all drains and dike well ahead of the spill to prevent runoff into sewers, drains, and all waterways. Contact appropriate local or provincial authorities for assistance and/or reporting requirements.

7. HANDLING & STORAGE INFORMATION

7.1 Work & Hygiene Practices:

> Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact.

7.2 Storage & Handling:

> Store at temperatures between 59 °F and 95 °F (15 °C and 35 °C) in a dry, well-ventilated location. Keep away from heat, sparks, open flame, and other sources of ignition. Container is not designed to contain pressure. Don not use pressure to empty container or it may rupture with explosive force. Normal shelf-life: 2-3 years.

7.3

Empty containers may contain product residues. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Ventilation & Engineering Controls:

> Use with adequate ventilation (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station).

8.2 Respiratory Protection:

> None required, when used with adequate ventilation. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended mineral oil mist exposure limits.

8.3

Wear safety glasses with side shields (ANSI Z87) under normal use conditions.

8.4

None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. In such cases, wear rubber or impervious plastic gloves.

8.5

Use as necessary to prevent skin contact.



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Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date:02/20/2011 9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Density: 0.72 92 Boiling Point: > 240 °C (464 °F) 9.3 Melting Point: NA 9.4 Evaporation Rate: NΑ 9.5 Vapor Pressure: < 0.01 mm Hg @ 20 °C (68 °F) Molecular Weight: 9.6 NA 9.7 Appearance & Color **Amber** 9.8 Odor Threshold: Ethereal/hydrocarbon odor 9.9 Solubility: Not soluble in water 9.10 Ph NA 9 11 Viscosity: 5.4 - 7.5 cSt @ 104 °F 9.12 Other Information: NA 10. STABILITY & REACTIVITY 10.1 Stability: Stable under normal conditions of use (see section 7). 10.2 Hazardous Decomposition Products: Change in color signifies exposure to ultraviolet light or exceeding shelf life. Will not degrade to unstable products. Discard solution. 10.3 Will not occur. 10.4 Conditions to Avoid: Use or storage near open flames, sparks, high heat (>100 °F) or other heat sources, and proximity to incompatible substances and heavily trafficked areas. 10.5 Incompatible Substances: Strong oxidizers such as peroxides, nitrates, and chlorates. Copper is explosively incompatible with sodium azide. Copper dust may react with acetylene gas to form copper acetylides which are sensitive to shock. 11. TOXICOLOGICAL INFORMATION 11.1 Toxicity Data: This product has not been tested on animals to obtain toxicological data. There are toxicology data for the components of this product, which are found in the scientific literature. These data have not been presented in this document. 11.2 Acute Toxicity See section 2.5 11.3 Chronic Toxicity: See section 2.6 11.4 Suspected Carcinogen: No. This product contains less than 3% Dimethyl Sulfoxide (DMSO). 11.5 Reproductive Toxicity: This product is not reported to produce reproductive toxicity in humans. This product is not reported to produce mutagenic effects in humans. This product contains alkyl Mutagenicity: dithiophosphates (ZDDPs). Several ZDDPs have been reported to have weak mutagenic activity in cultured mammalian cells but only at concentrations that were toxic. This product contains copper an essential element of mammalian metabolism. Copper metal has little or no serious toxicity. This product is not reported to produce embryotoxic effects in humans. Embryotoxicity: This product is not reported to produce teratogenic effects in humans. Teratogenicity: This product is not reported to produce reproductive effects in humans. Reproductive Toxicity: 11.6 Irritancy of Product: See Section 2.3 11.7 Biological Exposure Indices: ΝE 118 Physician Recommendations: Treat symptomatically



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MSDS Revision: 1.0 MSDS Revision Date:02/20/2011 Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards 12. ECOLOGICAL INFORMATION 12.1 This product will slowly volatile from soil. Components of this product will slowly decompose into organic compounds. 12.2 Effects on Plants & Animals There is no specific data available for this product. 12.3 Effects on Aquatic Life: This material should be kept out of sewage and drainage systems and all bodies of water. Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic life. 13. DISPOSAL CONSIDERATIONS 13.1 Dispose of in accordance with federal, state or local regulations. Do not dump into sewers, on the ground or into any body of water. 13.2 Special Considerations NA 14. TRANSPORTATION INFORMATION The basic description (proper shipping name, hazard class & division, ID Number, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR. 14.1 49 CFR (GND): **NOT REGULATED** 14.2 IATA (AIR): **NOT REGULATED** 14.3 IMDG (OCN): **NOT REGULATED** 14.4 TDGR (Canadian GND): **NOT REGULATED** 14.5 ADR/RID (EU): **NOT REGULATED** 14.6 MEXICO (SCT): **NOT REGULATED** 147 ADGR (AUS): **NOT REGULATED** 15. REGULATORY INFORMATION 15.1 SARA Reporting Requirements: This product contains the following chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-know Act of 1986 and of CFR 372; 68649-42-3 Zinc Alkydithiophosphate SARA Threshold Planning Quantity: 15.2 NA 15.3 TSCA Inventory Status: All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status. 15.4 CERCLA Reportable Quantity (RQ): This product has no CERCLA Reportable Quantity. However, release into a waterway may require reporting to the National Response Center. Copper: (RQ 2270 kgs) Other Federal Requirements: 15.5 NA 15.6 Other Canadian Regulations This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. State Regulatory Information: Components of this product are not listed on any of the following state criteria lists: California OSHA; California Proposition 65; Massachusetts Right to Know List; Pennsylvania Hazardous Substances List 34 323 Appendix A; Wisconsin Hazardous Substances List NR 605.09; Minnesota Hazardous Substances List, New Jersey Right to Know List; New York Right to Know List; Michigan Critical Substances List; and Florida Toxic Substances List. Under New Jersy Right to Know Act L.-1983 this product is to be identified as follows: Petroleum Oil (Grease).



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15. REGULATORY INFORMATION- continued

15.8 67/548/EEC (European Union) Requirements:

http://www.shipmate.com/

The primary component of this product is listed in Annex I of EU Directive 67/548/EEC:

Petroleum Distillates: (Xn) Harmful. R: 42/43-48/20 - May cause sensitization by inhalation and skin contact. Harmful: danger of serious damage to health by prolonged exposure through inhalation. S: 2-

contact. Harmful: danger of serious damage to health by prolonged exposure through inhalation. S: 2-29-36 - Keep out of the reach of children. Do not empty into drains. Wear suitable protective clothing.



	16. OTHER INFORMATION									
16.1	Other Information:									
	NA									
16.2	Terms & Definitions:									
	See last page of this MSDS.									
16.3	Disclaimer:									
	government regulations must be revie knowledge, the information contain completeness are not guaranteed a contained herein relates only to the sp	fered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other wed for applicability to this product. To the best of ShipMate's & CAIG Laboratories, Inc.'s ed herein is reliable and accurate as of this date; however, accuracy, suitability or not no warranties of any type, either expressed or implied, are provided. The information ecific product(s). If this product(s) is combined with other materials, all component properties anged from time to time. Be sure to consult the latest edition.								
16.4	Prepared for: CAIG Laboratories, Inc. 12200 Thatcher Court Poway, CA 92064-6876 +1 (800) CAIG-123 (244-4123) phone +1 (858) 486-8398 fax http://www.caig.com/	CAIG LABORATORIES, INC.								
16.5	Prepared by: ShipMate, Inc. P.O. Box 787 Sisters, OR. 97759-0787 +1-310-370-3600 phone +1-310-370-5700 fax	ShipMate* Dangerous Goods Training & Consulting								



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DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

CAS No. Chemical Abstract Service Number

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists	
TLV	Threshold Limit Value	
OSHA	U.S. Occupational Safety and Health Administration	
PEL Permissible Exposure Limit		
IDLH Immediately Dangerous to Life and Health		

FIRST AID MEASURES:

CPR	Cardiopulmonary resuscitation - method in which a person
	whose heart has stopped receives manual chest
	compressions and breathing to circulate blood and provide
	oxygen to the body.

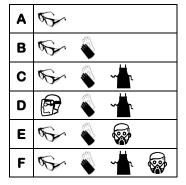
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3 Severe Hazard	
4	Extreme Hazard



PERSONAL PROTECTION RATINGS:







OTHER STANDARD ABBREVIATIONS:

NA	Not Available
NR	No Results
NE	Not Established
NF	Not Found
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

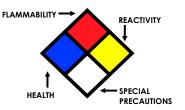
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of
	an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of
	by volume, that will explode or ignite in the presence of
	an ignition source

HAZARD RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
-W -	Use No Water
ОХ	Oxidizer



TOXICOLOGICAL INFORMATION:

LD 50	Lethal Dose (solids & liquids) which kills 50% of the
	exposed animals s
LC 50	Lethal concentration (gases) which kills 50% of the
	exposed animal
ppm	Concentration expressed in parts of material per
	million parts
TD _{Io}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD _{io} , LD _{io} , & LD _o or	Lowest dose (or concentration) to cause lethal or
TC, TCo, LCio, & LCo	toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TLm	Median threshold limit
log Kow or log Koc	Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System					
DOT	U.S. Department of Transportation					
TC	Transport Canada					
EPA	U.S. Environmental Protection Agency					
DSL	Canadian Domestic Substance List					
NDSL Canadian Non-Domestic Substance List						
PSL	Canadian Priority Substances List					
TSCA	U.S. Toxic Substance Control Act					
EU	European Union (European Union Directive 67/548/EEC)					

EC INFORMATION:

		No.	*			X	X
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful