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MSDS-E-F5S-A

MSDS Revision: 2.0 MSDS Revision Date: 01/25/2008 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards 02 1. PRODUCT IDENTIFICATION CHEMICAL RESPONSE CARD: 1.1 Product Name: DeoxIT® FaderLube, F5S-H6, 5% Spray, 142 g **RESPONSE** 1.2 Chemical Name: See ingredients listed in section 3 **TEAM PPE:** 1.3 Synonyms: DeoxIT® FaderLube, F5S-H6, 5% Spray WHMIS: 1.4 Trade Names: DeoxIT® FaderLube, F5S-H6, 5% Spray 1.5 Product Use: **HEALTH:** Lubricant for conductive plastics & carbon-based controls 1 1.6 Manufacturer's Name: CAIG Laboratories, Inc. 2 FLAMMABILITY: 1.7 Manufacturer's Address: 12200 Thatcher Court, Poway, CA 92064-6876 REACTIVITY: 0 1.8 Business Phone: +1 (800)-224-4123 PERSONAL PROTECTION: В 1.9 Emergency Phone: CHEMTREC 1-800-424-9300/1-703-527-3887 1.10 Other Product Names: DeoxIT® FaderLube, F5MS-H15, 5% Spray, 14 g 2. HAZARD IDENTIFICATION 2.1 Hazard Identification: Colorless, volatile liquid with ethereal and faint sweetish odor. Flammable aerosol. Overexposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result from exposure. Vapors displace air and can cause asphyxiation in confined spaces. This product is Classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of [NOHSC: 1088 (1999)] and ADG Code (Australia). 2.2 Routes of Entry: Inhalation: YES YES YES Absorption: Ingestion: 2.3 Effects of Exposure: EYES: Mild to moderate irritation. Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized SKIN: redness or rash). INGESTION: Gastrointestinal irritation and central nervous system depression. INHALATION: Central nervous system depressant. Irritating to the upper respiratory tract. Symptoms of Overexposure: 2.4 EYES: Mild irritation, redness, and watering. SKIN: Contact dermatitis, characterized by localized red or puffy dry skin and itching. INGESTION: Nausea, vomiting, and diarrhea. Mouth, nose, and throat irritation, dizziness, nausea, light-headedness, drunkenness, and loss of coordination. INHALATION: Acute Health Effects: INGESTION: Gastrointestinal irritation and central nervous system depression. EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash). INGESTION: Gastrointestinal irritation and central nervous system depression. INHALATION: Central nervous system depressant. Irritating to the upper respiratory tract. 2.6 Chronic Health Effects EYES: Mild to moderate irritation. Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized SKIN: redness or rash). INGESTION: Gastrointestinal irritation and central nervous system depression. INHALATION: Central nervous system depressant. Irritating to the upper respiratory tract. Target Organs: 2.7 Eyes, skin and respiratory system.

NA = Not Available; ND = Not Determined; NE = Not Established; 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 Z400.1-2004 format.



natural waterway.

MATERIAL SAFETY DATA SHEET

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		3. COM	NPOSITION	I & INGRE	DIEN	[INFO	DRM	ATIO	N					
								EXPOSU	IRE LIN	NITS IN	AIR (m	g/m³]		
						AC		ı	NOHSC	:	•	OSHA		OTHE
						ppm	om	ES-	ppm ES-	ES-		ppm		OTHE
	CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	TWA	STEL	PEAK	TLV	STEL	IDLH	
PETRO	OLEUM NAPHTHA	64742-88-7	XS5250000	265-191-7	≤ 75	100	NE	100	NE	NE	100	NE	NE	
OIFLU	OROETHANE	75-37-6	KI4100000	200-866-1	≤ 20	1000	NA	1000	NA	NA	1000	NA	NA	SKIN
DeoxIT® FaderLube F100L-H		TRADE SECRET	NA	NA	≤ 5	NA	NA	NA	NA	NA	NA	NA	NA	
			I	·	I			<u> </u>	l				l	
			∕ FII	RST AID M	EVCII	DEC								
1.1	First Aid:													
		yes thoroughly	with copious	amounts of v	vater f	or at le	ast 15	minute	s, hole	ding e	yelid(s) ope	n to	ensur
		ete flushing. If i								3 -	(-	, -,		
	SKIN: Remov	e contaminate	d clothing and	d wash affecte	ed area	s with	soap a	ınd wa	er. If	irritatio	n pers	ists, s	eek p	oromp
	medico	al attention. Do	not wear con	taminated clo	thing vi	ntil after	it has	been p	roperly	/ clear	ed.			
	•	lenty of water.	-											
		e victim to fres						supple	menta	loxyge	en and	l seel	c imm	ediate
		al attention. If b	preatning stops	s, periorm ariii	ciai res	piration	1.							
4.2	Medical Conditions Aggravated by None reported by the ma							HEAL	TH					1
	None reponed by me ma	ilolaciolei.						FLAM	ΜΔΙ	BILITY	,			2
														0
								REAC	HVI	I T				
														U
								PROT	ECTI	VE E	QUIP	MEI	NT	0
							-	PROT YES		VE E	QUIP	MEI	NT	
							-				QUIP	MEI	NT	
			5. FIREI	FIGHTING	MEA	SURE	I				QUIP	MEI	NT	
5.1	Flashpoint & Method:		5. FIREI	FIGHTING	MEA	SURE	I				QUIP	MEI	NT	
5.1	Flashpoint & Method: 48.8 °C - 54.4 °C (120 °F –	130 °F). Level 2		FIGHTING	MEA	SURE	I				QUIP	MEI	NT	
5.1		130 °F). Level 2		FIGHTING	MEA	SURE	I				QUIP	MEI	NT	
	48.8 °C - 54.4 °C (120 °F -	130 °F). Level 2		FIGHTING	MEA	SURE	I				QUIP	MEI	NT	
5.2	48.8 °C - 54.4 °C (120 °F - Autoignition Temperature: NA Flammability Limits:	130 °F). Level 2	2 aerosol.	FIGHTING	MEA	SURE:	<u> </u>		SK	(IN			NT	
5.2	48.8 °C - 54.4 °C (120 °F - Autoignition Temperature: NA Flammability Limits: Fire & Explosion Hazards:	•	2 aerosol . Lower Explos		MEA	1	<u> </u>	EYES	SK	(IN				
5.2 5.3 5.4	48.8 °C - 54.4 °C (120 °F - Autoignition Temperature: NA Flammability Limits: Fire & Explosion Hazards: Carbon dioxide, carbon r	•	2 aerosol . Lower Explos		MEA	1	<u> </u>	EYES	SK	(IN				
5.2 5.3 5.4	48.8 °C - 54.4 °C (120 °F - Autoignition Temperature: NA Flammability Limits: Fire & Explosion Hazards: Carbon dioxide, carbon r Extinguishing Methods:	nonoxide, hydr	Lower Explos		MEA	1	<u> </u>	EYES	SK	(IN				
	48.8 °C - 54.4 °C (120 °F - Autoignition Temperature: NA Flammability Limits: Fire & Explosion Hazards: Carbon dioxide, carbon r	nonoxide, hydr	Lower Explos		MEA	1	<u> </u>	EYES	SK	(IN				



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6. ACCIDENTAL RELEASE MEASURES

6.1 Spills:

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, U.S. DOT-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. Normal shelf-life: 2-3 years.

7.3 Special Precautions:

Empty containers can contain flammable vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

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.

8.3 Eye Protection

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

8.4 Hand Protection:

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 Body Protection:

Use as necessary to prevent skin contact.

9. PHYSICAL & CHEMICAL PROPERTIES

7, 11110107/L & 011L/MO7/L1 KO1 LK11L0				
Density:	0.75			
Boiling Point:	171.1 °C – 204 °C @ 760 mmHg			
Melting Point:	NA			
Evaporation Rate:	0.11 (n-Butyl Acetate = 1.0)			
Vapor Pressure:	35 psig @ 20 °C, 50 psig @ 50 °C			
Molecular Weight:	NA			
Appearance & Color:	Light amber, aerosol			
Odor Threshold:	Ethereal/hydrocarbon odor			
Solubility:	Not soluble in water			
рН	ND			
Viscosity:	10.0 cps			
VOC (grams/liters)	588 g/l			
Other Information:	Vapor Density = 4.9 (Air = 1.0)			
	Boiling Point: Melting Point: Evaporation Rate: Vapor Pressure: Molecular Weight: Appearance & Color: Odor Threshold: Solubility: pH Viscosity: VOC (grams/liters)			



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Prep	ared to OSHA, AC	C, ANSI, NOHSC, WHMIS & 2001/58 EC Standards M:	SDS Revision: 2.0	MSDS Revision Date: 01/25/2008		
		10. STABILITY & REA	ACTIVITY			
0.1	Stability:					
	Stable under norr	mal conditions of use (see section 7).				
0.2	Hazardous Decomposi	tion Products:				
	Change in color :	signifies exposure to ultraviolet light or exceeding shelf	life. Will not degrade	to unstable products. Discard solut		
0.3	Hazardous Polymerizati	ion:				
	Will not occur.					
0.4	Conditions to Avoid:					
Use or storage near open flames, sparks, high heat (>100 °F) or other heat sources, and proximity to incompatible subsheavily trafficked areas.						
0.5	Incompatible Substanc	:es:				
	Strong oxidizers.					
		11. TOXICOLOGICAL IN	<u>VFORMATION</u>			
1.1	Toxicity Data:					
		not been tested on animals to obtain toxicological				
1.2	Acute Toxicity:	re found in the scientific literature. These data have no	n been presented in th	iis document.		
1.2	See section 2.5					
1.3	Chronic Toxicity:					
1.0	See section 2.6					
1.4	Suspected Carcinoger					
1.4	NE					
1.5	Reproductive Toxicity:					
1.5		t reported to produce reproductive toxicity in humans.				
	Mutagenicity:	This product is not reported to produce		numans.		
	Embryotoxicity:	This product is not reported to produce				
	Teratogenicity:	This product is not reported to produce	•			
	Reproductive Toxicity:	This product is not reported to produce				
1.6	Irritancy of Product:					
	See Section 2.3					
1.7	Biological Exposure Ind	ices:				
	NE					
1.8	Physician Recommend	lations:				
	Treat symptomati	cally.				
		40. 5001001011				
0.		12. ECOLOGICAL INF	OKMAIION			
2.1	Environmental Stability:		ill clowly docomence:	ato organic compounds		
2.2	Effects on Plants & Anir	slowly volatile from soil. Components of this product wil	ii siowiy decompose ir	no organic compounds.		
∠.∠		ic data available for this product.				
2.3	Effects on Aquatic Life:					
۷.۷	•	volumes of this product are expected to be harmful or	r fatal to overexposed	aquatic life		
2.4	Environmental Impact		Ididi io Ofelexposed	aquant me.		
	VOC content: 75					
		13. DISPOSAL CONSI	DERATIONS			
13.1	Waste Disposal: Dispose of in acc	ordance with federal, state or local regulations.				
13.2	Special Considerations					
		: D001 (characteristic – ignitability)				



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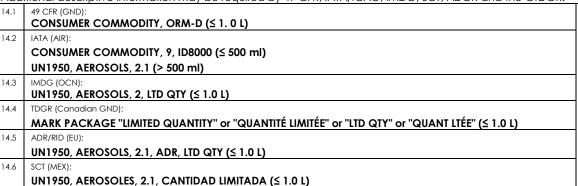
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14. TRANSPORTATION INFORMATION

The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG, SCT, ADGR and the CTDGR.





15. REGULATORY INFORMATION

5.1 U.S. EPA SARA Reporting Requirements:

UN1950, AEROSOLS, 2.1, LTD QTY (≤ 1.0 L)

NA

15.2 U.S. EPA SARA Threshold Planning Quantity:

NA

15.3 U.S. EPA TSCA Inventory Status:

All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status.

15.4 U.S. EPA CERCLA Reportable Quantity (RQ):

NA

15.5 Other U.S. Federal Requirements:

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.



15.7 U.S. State Regulatory Information:

The primary component of this product is not listed on the following state lists: California OSHA; California Proposition 65; Massachusetts Right to Know List of Chemicals; New Jersey Right to Know List 8:59 Appendix A; Pennsylvania Hazardous Substances List 34 323 Appendix A; Wisconsin Hazardous Substances List NR 605.09; Minnesota Hazardous Substances List; and Florida Toxic Substances List.

15.8 67/548/EEC (European Union) and Australia NOHSC:2011 (2003) Requirements::

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

<u>Petroleum Naphtha</u>: Flammable, Harmful (F, Xn). R: 10-65 – Flammable. Harmful: may cause lung damage if swallowed. S: 2-23-24-62 – Keep away from children. Do not breathe gas, fumes, vapor or spray. Avoid contact with skin. If swallowed, do not induce vomiting: seek medical advice immediately and show this MSDS or the container label.







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16. OTHER INFORMATION

16.1 Other Information:

NA

16.2

Terms & Definitions:

See last page of this MSDS.

16.3 Disclaimer:

This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & CAIG Laboratories, Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed 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



http://www.caig.com/

16.5 Prepared by:

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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
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EXPOSURE LIMITS IN AIR:

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

FIRST AID MEASURES:

CPR	Cardio
	whose

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.

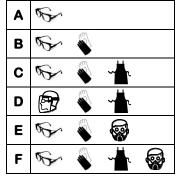
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

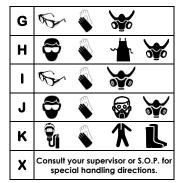
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

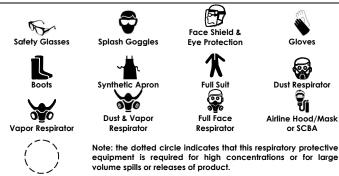
0	Minimal Hazard	
1	Slight Hazard	
2 Moderate Hazard		
3 Severe Hazard		
4 Extreme Hazard		



PERSONAL PROTECTION RATINGS:







OTHER STANDARD ABBREVIATIONS:

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

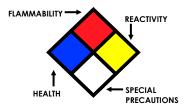
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition	Minimum temperature required to initiate combustion		
Temperature	Temperature in air with no other source of ignition		
LEL Lower Explosive Limit - lowest percent of vapor in air			
	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 _{lo}	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	A U.S. Toxic Substance Control Act		
EU	European Union (European Union Directive 67/548/EEC)		

EC INFORMATION:

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