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MSDS-E-DN5MS-15

Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 11/15/2005

1.	1. PRODUCT IDENTIFICATION			CHEMICAL RESPONSE CARD:			
1.1	Product Name:	DeoxIT®, DN5MS-15, 5% Spray, 14g	RESPONSE		\int_{∞}^{∞}		
1.2	Chemical Name:	See ingredients listed in section 2	TEAM PPE:	TEAM PPE:			
1.3	Synonyms:	DeoxIT®, DN5MS-15, 5% Spray	WILLIAM (T)				
1.4	Trade Names:	DeoxIT®, DN5MS-15, 5% Spray	WHMIS:	$ \bigcirc $	\bigcirc		
1.5	Product Use:	Clean, deoxidize & improve electrical contacts & connectors	HEALTH:		2		
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.	pratories, Inc. FLAMMABILITY:		0		
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876	REACTIVITY				0
1.8	Business Phone:	+1 (800)-224-4123	PERSONAL I	PROTEC	TION:		В
1.9	Emergency Phone:	CHEMTREC 1-800-424-9300/1-703-527-388	7				
1.10	Other Product Names:	NA					

2. COMPOSITION & INGREDIENT INFORMATION

		•••	1 0 11 10 11				<i>,</i> , ,			
				EXPOSURE LIMITS IN AIR (mg.				(mg/m³)	ng/m³)	
					AC	GIH		OSHA		OTHER
CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	
1,1,1,3,3-PENTAFLUOROPROPANE	460-73-1	UNK	419-170-6	≤ 75	300	NE	300	NE	NE	
HYDROCARBON PROPELLANT:				≤ 20						
ISOBUTANE	75-28-5	TZ4300000	200-857-2		NE	NE	NE	NE	NE	
PROPANE	74-98-6	TX2275000	200-827-9		NE	NE	1000	NE	NE	
ISOPROPYL ALCOHOL	67-63-0	NT8050000	200-661-7	≤ 5	400	NE	400	NE	2000	
DeoxIT® D100L	TRADE SECRET	UNK	UNK	≤ 5	NE	NE	NE	NE	NE	

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 Z400.1-1998 format.



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Prep	pared to OSHA, AC	C, ANSI, WHMIS & 2001/5	8 EC Standards	M	ISDS Revision: 1.0	MSD	S Revision Date: 11/	15/2005
			3. HAZARD	IDENTIF	ICATION			
3.1	of concentration.	liquid with ethereal and At higher levels, CNS o on in confined spaces. ides.	d faint sweetish odo depression and card	r. Non-flar diac arrhyt	mmable material. (m exposure	e. Vapors displace	air and c
.2	Routes of Entry:		Inhalation:	YES	Absorption:	YES	Ingestion:	YES
.3	Effects of Exposure: EYES: SKIN: INGESTION:	Mild to moderate irritat Irritant and potential s redness or rash). Gastrointestinal irritatio	skin sensitizer. Pro	Ū	•	may caus		tis (localiz
	INHALATION:	Central nervous system		•	•	ct.		
3.4	Symptoms of Overexport EYES: SKIN: INGESTION: INHALATION:	KIN: Contact dermatitis, characterized by localized red or puffy dry skin and itching. IGESTION: Nausea, vomiting, and diarrhea.						
.5	Acute Health Effects: EYES: SKIN:	EYES: Mild to moderate irritation.						
	INGESTION: INHALATION:	Gastrointestinal irritation and central nervous system depression. Central nervous system depressant. Irritating to the upper respiratory tract.						
1.6	Chronic Health Effects: EYES: SKIN:	Mild to moderate irritat Irritant and potential s redness or rash).		longed or	repeated contact	may caus	e contact dermati	tis (localiz
	INGESTION: INHALATION:	Gastrointestinal irritation Central nervous system				ct.		
.7	Target Organs: Eyes, skin and res	piratory system.						
			4. FIRST A	ID ME	ASURES			
1.1	First Aid: EYES:	Flush eyes thoroughly complete flushing. If irr					olding eyelid(s) ope	en to ensi
	SKIN:	Remove contaminated medical attention. Do	l clothing and wast	affected	areas with soap a	nd water. I		seek pron
	INGESTION:	Drink plenty of water. I	f irritation persists, c	ontact a p	hysician.			
	INHALATION:	Remove victim to fresh		•	•	supplement	al oxygen and see	k immedia
		medical attention. If b	rearring slops, perio		ai respiration.			
1.2	Medical Conditions Ag	gravated by Exposure:	reariing stops, pend			IEALTH		2
1.2	-		edilling slops, pend			HEALTH LAMMA	BILITY	2
4.2	-	gravated by Exposure:	rearming stops, pend					
4.2	-	gravated by Exposure:	learning stops, pend			LAMMA REACTIV		0



8.5

Body Protection:

Use as necessary to prevent skin contact.

MATERIAL SAFETY DATA SHEET

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Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 11/15/2005 5. FIREFIGHTING MEASURES Flashpoint & Method: ND. Level 1 aerosol. 52 Autoignition Temperature: 412 °C (774 °F) - 1,1,1,3,3-Pentafluoropropane 5.3 Flammability Limits: Lower Explosive Limit (LEL): NA Upper Explosive Limit (UEL): NA 5.4 Fire & Explosion Hazards: Carbon dioxide, carbon monoxide, hydrocarbons. 5.5 Extinguishing Methods: CO₂, Alcohol foam, Dry Chemical, Water Fog 5.6 Firefiahtina 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. 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, 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 Work & Hygiene Practices: Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact. 72 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 may contain product residues. 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). 82 Respiratory Protection: None required, when used with adequate ventilation. 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.



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		9. PHYSICAL & CHEMICAL PROPERTIES
9.1	Density:	NA
9.2	Boiling Point:	15 °C (59 °F) - 1,1,1,3,3-Pentafluoropropane
9.3	Melting Point:	NA
9.4	Evaporation Rate:	NA
9.5	Vapor Pressure:	NA NA
9.6	Molecular Weight:	NA
9.7	Appearance & Color:	Light red, aerosol
9.8	Odor Threshold:	Ethereal/hydrocarbon odor
9.9	Solubility:	Not soluble in water
9.10	Hq	NA NA
9.11	Viscosity:	ND
9.12	Other Information:	NA NA
	I	
		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	Hazardous Polymerization:	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.
	I	
		11. TOXICOLOGICAL INFORMATION
11.1	Toxidty Data:	1,1,1,3,3-Pentafluoropropane: Acute Dermal (rabbit) – $LD_{50} > 2,000$ mg/kg; Cardiac Sensitization (dogs) – No effects noted at 35,000 ppm, the threshold for induction of cardiac arrhythmias in the presence of injected adrenalin was 44,000 ppm. Acute Inhalation (rat): 4-hr. $LC_{50} > 200,000$ ppm. No lethality at 200,000 ppm. Evidence of transient anesthetic effect. Acute Inhalation (mouse): 4-hr. $LC_{50} > 100,000$ ppm. No lethality at 100,000 ppm. Evidence of transient underactivity during exposure.
11.2	Acute Toxicity:	See section 3.5
11.3	Chronic Toxicity:	See section 3.6
11.4	Suspected Carcinogen:	NE NE
11.5	Reproductive Toxicity:	This product is not reported to produce reproductive toxicity in humans.
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.
	Teratogenicity:	This product is not reported to produce teratogenic effects in humans.
	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.
11.6	Irritancy of Product:	See Section 3.3
11.7	Biological Exposure Indices:	NE NE
11.8	Physician Recommendations:	Treat symptomatically.
		12. ECOLOGICAL INFORMATION
12.1	Environmental Stability:	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:	1,1,1,3,3-Pentafluoropropane: Partition Coefficient: Log Pow = 1.35 @ 21.5°C; Acute toxicity to Daphnia magna (Limit Test): NOEC > 97.9 mg/L; 48 hr. EC ₅₀ > 97.9 mg/L. Acute toxicity to Rainbow Trout (Limit Test): NOEC > 10 mg/L; 96 hr. EC ₅₀ > 81.8 mg/L



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Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 11/15/2005 13. DISPOSAL CONSIDERATIONS Dispose of in accordance with federal, state or local regulations. 13.2 Special Considerations: 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. 49 CFR (GND): CONSUMER COMMODITY, ORM-D 14.2 IATA (AIR): CONSUMER COMMODITY, 9, ID8000 (≤ 820 ml) AEROSOLS, 2.2, UN1950 (> 820 ml) ORM-D 14.3 IMDG (OCN): AEROSOLS, 2, UN1950, LTD QTY (≤ 1.0 L) 144 TDGR (Canadian GND): MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L) 14.5 1950 AEROSOLS, 2, 5 A, ADR, LTD QTY 15. REGULATORY INFORMATION 15.1 SARA Reporting Requirements: NA SARA Threshold Planning Quantity: 15.2 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): 15.5 Other Federal Requirements: Contains HFC-245fa, a greenhouse gas, a substance which may contribute to global warming. Regulated under Section 612 (SNAP) of the Clean Air Act and 40 CFR Part 82, subpart G. 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 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) Requirements: The primary component of this product is listed in Annex I of EU Directive 67/548/EEC:



http://www.shipmate.com/

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Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 11/15/2005 16. OTHER INFORMATION Other Information: NA 16.2 Terms & Definitions: See page 7 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 +1 (858) 486-8398 fax http://www.caig.com/ Prepared by: ShipMate, Inc. **ShipMate** 18436 Hawthorne Blvd., Suite 201 Torrance, CA 90504 310-370-3600 phone 310-370-5700 fax



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Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 11/15/2005

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	Cardiop	ulmono	ıry resu	uscitation -	method in	which a	person
	whose	heart	has	stopped	receives	manual	chest
	compre	ssions a	nd bre	eathing to d	circulate bl	ood and p	rovide
	oxygen	to the b	ody.				

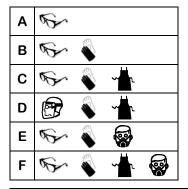
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

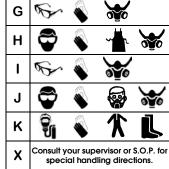
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

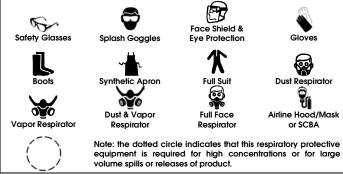
0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard



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

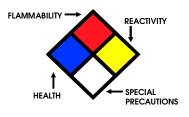
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition	Minimum temperature required to initiate combustion
Temperature	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,
	Upper Explosive Limit - highest percent of vapor in air, 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
-₩ -	Use No Water
OX	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, TC _o , LC _{lo} , & LC _o	toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL _m	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:

T.		N	*		Q	×	X
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



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MSDS-E-G5S

Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 01/07/2006

1.	1. PRODUCT IDENTIFICATION CHEMICAL RESPONSE C				CARD:	02	
1.1	Product Name:	DeoxIT® GOLD, G5S-6, 5% Spray, 142 g	RESPONSE	=	(m)		
1.2	Chemical Name:	See ingredients listed in section 2	TEAM PPE:	lacksquare			
1.3	Synonyms:	DeoxIT® GOLD, G5S-6, 5% Spray	VAZI IN ZIC.			T	
1.4	Trade Names:	DeoxIT® GOLD, G5S-6, 5% Spray	WHMIS:	$ \bigcirc $		\bigcirc	
1.5	Product Use:	Conditioner, enhancer for contacts & connectors	HEALTH:				1
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.	FLAMMABIL	ITY:			2
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876	REACTIVITY				0
1.8	Business Phone:	+1 (800)-224-4123	PERSONAL F	PROTEC	TION:		В
1.9	Emergency Phone:	CHEMTREC 1-800-424-9300/1-703-527-	3887				
1.10	Other Product Names:	DeoxIT® GOLD, G5MS-15, 5% Spray, 14 g					

2. COMPOSITION & INGREDIENT INFORMATION

						EXPO	SURE LIMI	TS IN AIR ((mg/m³)	
					AC	GIH		OSHA		OTHER
CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	
PETROLEUM NAPHTHA	64742-88-7	XS5250000	265-191-7	≤ 75	100	NE	100	NE	NE	
HYDROCARBON PROPELLANT:				≤ 20						
ISOBUTANE	75-28-5	TZ4300000	200-857-2		NE	NE	NE	NE	NE	
PROPANE	74-98-6	TX2275000	200-827-9		NE	NE	1000	NE	NE	
DeoxIT® GOLD G100L	TRADE SECRET			≤ 5	NE	NE	NE	NE	NE	

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 Z400.1-2003 format.



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Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 01/07/2006 3. HAZARD IDENTIFICATION 3.1 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. 3.2 Routes of Entry: Inhalation: YES Absorption: YES Ingestion: YES Effects of Exposure: 3.3 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. 3 4 Symptoms of Overexposure: EYES: Mild irritation, redness, and watering. SKIN: Contact dermatitis, characterized by localized red or puffy dry skin and itching. INGESTION: Nausea, vomiting, and diarrhea. INHALATION: Mouth, nose, and throat irritation, dizziness, nausea, light-headedness, drunkenness, and loss of coordination. Acute Health Effects: 3.5 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. Chronic Health Effects: 3.6 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. 3.7 Target Organs: Eyes, skin and respiratory system. 4. FIRST AID MEASURES First Aid: 4.1 EYES: Flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek immediate medical attention. Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt SKIN: medical attention. Do not wear contaminated clothing until after it has been properly cleaned. INGESTION: Drink plenty of water. If irritation persists, contact a physician. Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate INHALATION: medical attention. If breathing stops, perform artificial respiration. 4.2 Medical Conditions Aggravated by Exposure: HEALTH 1 None reported by the manufacturer. 2 **FLAMMABILITY** REACTIVITY 0 PROTECTIVE EQUIPMENT

EYES

SKIN



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Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 01/07/2006 5. FIREFIGHTING MEASURES Flashpoint & Method: 48.8 °C - 54.4 °C (120 °F - 130 °F). Level 2 aerosol. 5.2 Autoignition Temperature: NΑ Flammability Limits: 5.3 Lower Explosive Limit (LEL): NΑ Upper Explosive Limit (UEL) NΑ Fire & Explosion Hazards: 5.4 Carbon dioxide, carbon monoxide, hydrocarbons 5.5 Extinguishing Methods: CO2, Alcohol foam, Dry Chemical, Water Fog 5.6 Firefiahtina 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

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:

natural waterway.

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.



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Prep	pared to OSHA, ACC, ANSI, WHM	S & 2001/58 EC Standards	MSDS Revision	า: 1.0	MSDS Revision Date: 01/07/2006			
		9. PHYSICAL & CI	JEMICAL DDOD	EDTIES				
.1	Density:	0.75	ILIVIICAL FROE	LIVIILS				
.2	Boiling Point:	171.1 °C – 204 °C @ 760 mmH	7					
3	Melting Point:	NA	3					
4	Evaporation Rate:							
5	Vapor Pressure:	35 psig @ 20 °C, 50 psig @ 50 °	0.11 (n-Butyl Acetate = 1.0)					
6	Molecular Weight:	NA	<u> </u>					
7	Appearance & Color:							
8	Odor Threshold:	Light yellow, aerosol						
9	Solubility:	Ethereal/hydrocarbon odor						
10	pH	Not soluble in water						
		ND						
.11	Viscosity:	10.0 cps						
.12	Other Information:	Vapor Density = 4.9 (Air = 1.0)						
		40 CTADUIT	V 0 DE A OTIVITA	,				
0.1	Chability		Y & REACTIVITY					
0.1	Stability:	Stable under normal condition						
0.2	Hazardous Decomposition Products:	Change in color signifies ex unstable products. Discard so		light or exc	eeding shelf life. Will not degrade			
0.3	Hazardous Polymerization:	Will not occur.						
0.4	Conditions to Avoid:	Use or storage near open flat incompatible substances and			or other heat sources, and proximity			
0.5	Incompatible Substances:	Strong oxidizers.						
		11. TOXICOLOG	ICAL INFORMA	ATION				
11.1	Toxicity Data:				ogical data. There are toxicology da			
					ientific literature. These data have i			
		been presented in this docum						
1.2	Acute Toxicity:	See section 3.5						
1.3	Chronic Toxicity:	See section 3.6						
1.4	Suspected Carcinogen:	NE						
1.5	Reproductive Toxicity:	This product is not reported to	produce reproductiv	e toxicity in	humans.			
	Mutagenicity:	This product is not reported to	produce mutagenic	effects in hu	ımans.			
	Embryotoxicity:	This product is not reported to						
	Teratogenicity:	This product is not reported to	•					
1 /	Reproductive Toxicity:	This product is not reported to	produce reproductiv	e effects in	numans.			
1.6	Irritancy of Product:	See Section 3.3						
11.7	Biological Exposure Indices:	NE						
1.8	Physician Recommendations:	Treat symptomatically.						
		40 50010010						
	T =	12. ECOLOGIC						
2.1	Environmental Stability:	This product will slowly volat organic compounds.	ile from soil. Compo	onents of thi	is product will slowly decompose in			
2.2	Effects on Plants & Animals:	There is no specific data avai	lable for this product.					
2.3	Effects on Aquatic Life:	Releases of large volumes of aquatic life.	of this product are e	expected to	be harmful or fatal to overexpos			
2.4	Environmental Impact (Percent by	CFC: 0.0%	HCFC: 0.0%	CL.SOL	.V.: 0.0%			
	Weight):	VOC: 95.0	% HFC: 0.0%	ODP: (0.0%			
		12 DICDOCAL		- NIC				
3.1	Waste Disposal:	13. DISPOSAL	CONSIDERATIO	NN2				
J. 1	Dispose of in accordance with	federal, state or local regulatio	ns.					
	•	,						
3.2	Special Considerations:							



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Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 01/07/2006

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):
14.1	CONSUMER COMMODITY, ORM-D
14.2	IATA (AIR):
	CONSUMER COMMODITY, 9, ID8000 (≤ 500 ml)
	AEROSOLS, 2.1, UN1950 (> 500 ml)
14.3	IMDG (OCN):
	AEROSOLS, 2, UN1950, LTD QTY (≤ 1.0 L)
14.4	TDGR (Canadian GND):
	MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L)



15. REGULATORY INFORMATION

5.1 SARA Reporting Requirements:

1950 AEROSOLS, 2, 5 A, ADR, LTD QTY

NA

14.5

15.2 SARA Threshold Planning Quantity:

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):

NΑ

15.5 Other 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 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) 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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MSDS-E-G5S

Prep	pared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC	C Standards	MSDS Revision: 1.0	MSDS Revision Date: 01/07/2006		
		16. OTHER INF	ORMATION			
16.1	Other Information:					
	NA					
16.2	Terms & Definitions:					
	See page 7 of this MSDS.					
16.3	Disclaimer:					
	This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Oth government regulations must be reviewed for applicability to this product. To the best of ShipMate's & CAIG Laboratories, Inc. knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completen are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained here relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must 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 +1 (858) 486-8398 fax http://www.caig.com/	CAIG LABORATORIES, INC.				
16.5		ShipMate* Damperous Goods Training & Consulting				



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MSDS-E-G5S

Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 01/07/2006

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:

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists			
TLV	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.

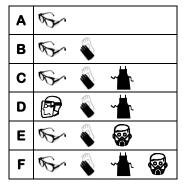
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

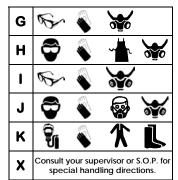
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	0 Minimal Hazard			
1	1 Slight Hazard			
2	Moderate Hazard			
3	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

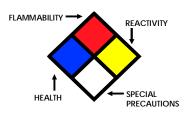
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition	Minimum temperature required to initiate combustion
Temperature	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
	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
-₩ -	Use No Water
OX	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, TC _o , LC _{lo} , & LC _o	toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL _m	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:

T.		*	*		*	X	X
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



1.8

1.9

1.10

Business Phone:

Emergency Phone:

Other Product Names:

+1 (800)-224-4123

MATERIAL SAFETY DATA SHEET

Page 1 of 7

MSDS-E-F5S

В

PERSONAL PROTECTION:

MSDS Revision Date: 11/15/2005 Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 02 1. PRODUCT IDENTIFICATION **CHEMICAL RESPONSE CARD:** Product Name: DeoxIT® FaderLube, F5S-H6, 5% Spray, 142 g **RESPONSE** (formerly CaiLube MCL, MCL5S-H6) **TEAM PPE:** 1.2 Chemical Name: See ingredients listed in section 2 1.3 Synonyms: DeoxIT® FaderLube F5, F5S-H6, 5% Spray WHMIS: 1.4 Trade Names: DeoxIT® FaderLube F5, F5S-H6, 5% Spray 1.5 Product Use: Lubricant for conductive plastics & carbon-based controls **HEALTH:** 1 1.6 Manufacturer's Name: **FLAMMABILITY:** 2 CAIG Laboratories, Inc. 1.7 Manufacturer's Address: 12200 Thatcher Court, Poway, CA 92064-6876 REACTIVITY: 0

DeoxIT® FaderLube, F5MS-H15, 5% Spray, 14 g

CHEMTREC 1-800-424-9300/1-703-527-3887

	2. CON	/IPOSITIOI	N & INGRE	DIENI	INFOR	RIVIATIC	אכ			
						EXPO:	SURE LIMI	TS IN AIR ((mg/m³)	
					AC	GIH		OSHA		OTHER
				%	TLV	STEL	PEL	STEL	IDLH	
CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	70	ppm	ppm	ppm	ppm	ppm	
PETROLEUM NAPHTHA	64742-88-7	XS5250000	265-191-7	≤ 75	100	NE	100	NE	NE	
HYDROCARBON PROPELLANT:				≤ 20						
ISOBUTANE	75-28-5	TZ4300000	200-857-2		NE	NE	NE	NE	NE	
PROPANE	74-98-6	TX2275000	200-827-9		NE	NE	1000	NE	NE	
DeoxIT® FaderLube, F100L-H	TRADE SECRET			≤ 5	NE	NE	NE	NE	NE	

COMPOCITION O INCOPPIENT INFORMATION

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 Z400.1-2003 format.



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MSDS-E-F5S

Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 11/15/2005 3. HAZARD IDENTIFICATION 3.1 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. 3.2 Routes of Entry: Inhalation: YES Absorption: YES Ingestion: YES Effects of Exposure: 3.3 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. 3 4 Symptoms of Overexposure: EYES: Mild irritation, redness, and watering. SKIN: Contact dermatitis, characterized by localized red or puffy dry skin and itching. INGESTION: Nausea, vomiting, and diarrhea. INHALATION: Mouth, nose, and throat irritation, dizziness, nausea, light-headedness, drunkenness, and loss of coordination. Acute Health Effects: 3.5 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. Chronic Health Effects: 3.6 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. 3.7 Target Organs: Eyes, skin and respiratory system. 4. FIRST AID MEASURES First Aid: 4.1 EYES: Flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek immediate medical attention. Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt SKIN: medical attention. Do not wear contaminated clothing until after it has been properly cleaned. INGESTION: Drink plenty of water. If irritation persists, contact a physician. Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate INHALATION: medical attention. If breathing stops, perform artificial respiration. 4.2 Medical Conditions Aggravated by Exposure: HEALTH 1 None reported by the manufacturer. 2 **FLAMMABILITY** REACTIVITY 0 PROTECTIVE EQUIPMENT **EYES** SKIN



Use as necessary to prevent skin contact.

MATERIAL SAFETY DATA SHEET

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MSDS-E-F5S

Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 11/15/2005 5. FIREFIGHTING MEASURES Flashpoint & Method: 48.8 °C - 54.4 °C (120 °F - 130 °F). Level 2 aerosol. 5.2 Autoignition Temperature: NΑ Flammability Limits: 5.3 Lower Explosive Limit (LEL): NΑ Upper Explosive Limit (UEL) NΑ Fire & Explosion Hazards: 5.4 Carbon dioxide, carbon monoxide, hydrocarbons 5.5 Extinguishing Methods: CO2, Alcohol foam, Dry Chemical, Water Fog 5.6 Firefiahtina 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. 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, 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 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. Special Precautions: 7.3 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 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. Body Protection: 8.5



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MSDS-E-F5S

.1								
	Density:	9. PHYSICAL & CHEMICAL PROPERTIES						
2	Boiling Point:	171.1 °C – 204 °C @ 760 mmHg						
3	Melting Point:	NA						
4	Evaporation Rate:	0.11 (n-Butyl Acetate = 1.0)						
5	Vapor Pressure:	35 psig @ 20 °C, 50 psig @ 50 °C						
6	Molecular Weight:	NA						
7	Appearance & Color:	Light blue/green, aerosol						
8	Odor Threshold:	Ethereal/hydrocarbon odor						
9	Solubility:	Not soluble in water						
10	рН	ND						
11	Viscosity:	10.0 cps						
12	Other Information:	Vapor Density = 4.9 (Air = 1.0)						
		Tapor Bonsky = 1.7 (All = 1.6)						
		10. STABILITY & REACTIVITY						
).1	Stability:	Stable under normal conditions of use (see section 7).						
0.2	Hazardous Decomposition Products:	Change in color signifies exposure to ultraviolet light or exceeding shelf life. Will not degrade unstable products. Discard solution.						
0.3	Hazardous Polymerization:	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 incompatible substances and heavily trafficked areas.						
0.5	Incompatible Substances:	Strong oxidizers.						
		11. TOXICOLOGICAL INFORMATION						
1.1	This product has not been tested on animals to obtain toxicological data. There are toxicology of for the components of this product, which are found in the scientific literature. These data have been presented in this document.							
1.2	Acute Toxicity:	See section 3.5						
1.3	Chronic Toxicity:	See section 3.6						
1.4	Suspected Carcinogen:	NE						
1.5	Reproductive Toxicity: This product is not reported to produce reproductive toxicity in humans.							
	Mutagenicity:	This product is not reported to produce reproductive toxicity in ridinaris. This product is not reported to produce mutagenic effects in humans.						
Ī	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.						
Ī	Teratogenicity:	This product is not reported to produce teratogenic effects in humans.						
	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.						
1.6	Irritancy of Product:	See Section 3.3						
1.7	Biological Exposure Indices:	NE NE						
8.1	Physician Recommendations:	Treat symptomatically.						
		12. ECOLOGICAL INFORMATION						
2.1	Environmental Stability:	This product will slowly volatile from soil. Components of this product will slowly decompose in organic compounds.						
2.2	Effects on Plants & Animals:	There is no specific data available for this product.						
2.3	Effects on Aquatic Life:	Releases of large volumes of this product are expected to be harmful or fatal to overexpose aquatic life.						
2.4	Environmental Impact (Percent by Weight):	CFC: 0.0% HCFC: 0.0% CL.SOLV.: 0.0% VOC: 95.0% HFC: 0.0% ODP: 0.0%						
		13. DISPOSAL CONSIDERATIONS						
3.1	Waste Disposal: Dispose of in accordance with	federal, state or local regulations.						



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MSDS-E-F5S

Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 11/15/2005

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):
CONSUMER COMMODITY, ORM-D

14.2 IATA (AIR):
CONSUMER COMMODITY, 9, ID8000 (≤ 500 ml)
AEROSOLS, 2.1, UN1950 (> 500 ml)

14.3 IMDG (OCN):
AEROSOLS, 2, UN1950, LTD QTY (≤ 1.0 L)

14.4 IDGR (Canadian GND):
MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L)



15. REGULATORY INFORMATION

15.1 SARA Reporting Requirements:

1950 AEROSOLS, 2, 5 A, ADR, LTD QTY

NA

14.5

15.2 SARA Threshold Planning Quantity:

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):

NΑ

15.5 Other 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 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) 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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MSDS-E-F5S

Prep	pared to OSHA, ACC, ANSI, WHMIS & 2001/	58 EC Standards	MSDS Revision: 1.0	MSDS Revision Date: 11/15/2005
		16. OTHER INF	ORMATION	
16.1	Other Information:	10. 011121(1141		
16.2	Terms & Definitions: See page 7 of this MSDS.			
16.3	knowledge, the information contained hare not guaranteed and no warranties	ved for applicability to the nerein is reliable and accu- of any type, either expr If this product(s) is co-	nis product. To the best of urate as of this date; howe essed or implied, are prov ombined with other mate	n Standard, 29 CFR §1910.1200. Other of ShipMate's & CAIG Laboratories, Inc.'s ver, accuracy, suitability or completeness yided. The information contained herein rials, all component properties must be
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/	EAST LABORATORIES, INC.		
16.5	Prepared by: ShipMate, Inc. 18436 Hawthorne Blvd., Suite 201 Torrance, CA 90504 310-370-3600 phone 310-370-5700 fax http://www.shipmate.com/	ShipMate* Dangerous Goods Training & Consulting		



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MSDS-E-F5S

Prepared to OSHA, ACC, ANSI, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 11/15/2005

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	Cardiop	ulmona	ry resu	uscitation -	method in	which a	person
	whose	heart	has	stopped	receives	manual	chest
	compre	ssions a	nd bre	eathing to d	circulate blo	ood and p	rovide
	oxygen	to the b	ody.				

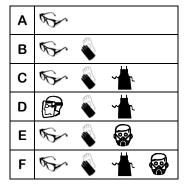
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

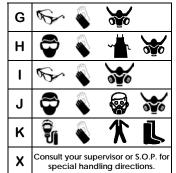
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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

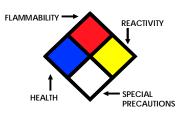
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition	Minimum temperature required to initiate combustion
Temperature	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,
	Upper Explosive Limit - highest percent of vapor in air, 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
-₩ -	Use No Water
OX	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% 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 TC, TC _o , LC _{Io} , & LC _o	Lowest dose (or concentration) to cause lethal or toxic effects	
IARC International Agency for Research on Cancel		
NTP	National Toxicology Program	
RTECS	Registry of Toxic Effects of Chemical Substances	
BCF	Bioconcentration Factor	
TL _m	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:

T.		N	*		*	×	X
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



Page 1 of 6

MSDS-E-D100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision Date: 11/19/2007 MSDS Revision: 2.0 03 1. PRODUCT IDENTIFICATION **CHEMICAL RESPONSE CARD:** Product Name: DeoxIT® D100L **RESPONSE TEAM PPE:** 1.2 Chemical Name: See ingredients listed in section 3 1.3 Synonyms DeoxIT® D100L WHMIS: 1 4 Trade Names: DeoxIT® D100L (see list below) 1.5 Product Use: **HEALTH:** Clean, deoxidize & improve electronic contacts & connectors 0 1.6 Manufacturer's Name: CAIG Laboratories, Inc. **FLAMMABILITY:** 0 1 7 Manufacturer's Address: 12200 Thatcher Court, Poway, CA 92064-6876 **REACTIVITY:** 0 1.8 Business Phone: +1 (800)-224-4123 PERSONAL PROTECTION: 1.9 Emergency Phone: CHEMTREC +1 (703) 527-3887 / +1 (800) 424-9300 1.10 Other Product Names: DeoxIT® D100L, 2 ml (Part No. D100L-2C, D100L-2CP) DeoxIT® D100L, 7.4 ml (Part No. D100L-2DB) DeoxIT® D100L, 12 ml (Part No. D100L-12C) DeoxIT® D100L, 25 ml (Part No. D100L-25C) DeoxIT® PEN, 7 ml (Part No. D100P) DeoxIT® WIPES, (Part Nos. D50W, K-D1W-25, K-D1W-50, D1W) DeoxIT® D100L, 59 ml (Part No. D100L-2) DeoxIT® D100L, 236 ml (Part No. D100L-8) DeoxIT® D100L, 472 ml (Part No. D100L-16) DeoxIT® D100L, 944 ml (Part No. D100L-32) DeoxIT® D100L, 30 L (Part No. D100L-8G) 2. HAZARD IDENTIFICATION 2.1 Hazard Identification: This product is NOT classified as a HAZARDOUS SUBSTANCE or as DANGEROUS GOODS according to the classification criteria of [NOHSC: 1088 (1999)] and ADG Code (Australia). DeoxIT® D100L is non-volatile, non-hazardous and non-flammable. Routes of Entry: Inhalation: YES Absorption: YES Ingestion: 2.3 Effects of Exposure: EYES: Non-irritating when used as directed. Can cause irritation, tearing, and temporary blurred vision. 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. Unlikely route of exposure. Should vapor concentrations exceed recommended exposure levels, they are INHALATION: temporary irritating to the eyes, nose, throat, and the respiratory tract; may cause temporary headaches and Symptoms of Overexposure: 2.4 EYES: Non-irritating when used as directed. Can cause temporary irritation, tearing, and blurred vision. SKIN: Non-irritating when used as directed. Prolonged or repeated contact may cause temporary contact dermatitis (localized redness or rash). Not probable. Small amounts if swallowed may cause temporary gastrointestinal irritation. INGESTION: 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: None reported when used as directed. Mild to moderate temporary irritation. EYES: 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 None reported by the manufacturer. 2.7 Target Organs: Eyes and skin. 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 Z400.1-1998 format.



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MSDS-E-D100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0 MSDS Revision Date: 11/19/2007 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) **ACGIH OSHA OTHER** TLV **STEL PEL STEL IDLH** % CHEMICAL NAME(S) CAS No. RTECS No. **EINECS No.** ppm ppm ppm ppm ppm DeoxIT® D100L Trade Secret UNK UNK 100 NE NE NE NE NE NE NF NE NE NE 4. FIRST AID MEASURES 4.1 First Aid: EYES: Flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek immediate medical attention. SKIN: Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt medical attention. Do not wear contaminated clothing until after it has been properly cleaned. INGESTION: Do not induce vomiting! Drink plenty of water. If irritation persists, contact a physician. Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate INHALATION: medical attention. If breathing stops, perform artificial respiration. 42 Medical Conditions Aggravated by Exposure: **HEALTH** 0 None reported by the manufacturer. 0 **FLAMMABILITY** REACTIVITY 0 PROTECTIVE EQUIPMENT Α **EYES** 5. FIREFIGHTING MEASURES 5.1 Flashpoint & Method: > 250 °C (482 °F) 5.2 Autoignition Temperature: NA 5.3 Flammability Limits: Lower Explosive Limit (LEL): ND Upper Explosive Limit (UEL) ND Fire & Explosion Hazards: 5.4 Carbon dioxide, carbon monoxide, hydrocarbons. 5.5 Extinguishing Methods CO₂, Alcohol foam, Dry Chemical, Water Fog 5.6 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. 6. ACCIDENTAL RELEASE MEASURES 6.1 Ventilate if in enclosed area. Secure spill area, remove or minimize all sources of ignition, and maximize ventilation. Wipe and rinse with water. Deny entry to all unprotected individuals. Individuals involved in the cleanup must wear appropriate personal protective equipment.



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MSDS-E-D100L

Prep	pared to OSHA, ACC, ANSI, WHA	MIS, NOHSC & 2001/58 EC Standards	MSDS Revision: 2.0	MSDS Revision Date: 11/19/2007	
		7. HANDLING & STORA	GE INFORMATIO	N	
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:				
		well-ventilated area. Do not store ne entrations, keep tightly closed when r		tible materials listed in section 10. Open fe 2-3 years.	
7.3	Special Precautions: Empty containers may contain	n product residues.			
	Ω	EXPOSURE CONTROLS & I	PERSONAL PROTE	CTION	
8.1	Ventilation & Engineering Controls:	EXI OSORE CONTROLS & I	LKSONALIKOIL	CHOR	
0.1	Use with adequate ventilation	on (e.g., open doors and windows, l sink, safety shower, eye-wash station).		a). Ensure appropriate decontamination	
8.2	Respiratory Protection: None required, when used with	th adequate ventilation.			
8.3	Eye Protection: Wear safety glasses with side	shields (ANSI Z87) under normal use c	onditions.		
8.4	Hand Protection:	conditions of use. However, may cau		sensitive individuals. In such cases, wear	
8.5	Body Protection:				
	Use as necessary to prevent s	kin contact.			
		9. PHYSICAL & CHEM	ICAL PROPERTIES		
9.1	Density:	0.72			
9.2	Boiling Point:	> 220 °C (428 °F)			
9.3	Melting Point:	NA			
9.4	Evaporation Rate:	NA			
9.5	Vapor Pressure:	< 0.01 mm Hg @ 20 °C (68 °F)			
9.6	Molecular Weight:	NA			
9.7	Appearance & Color:	Light red			
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	VOC (g/L):	None			
9.13	Other Information:	NA			
		10. STABILITY &	REACTIVITY		
10.1	Stability:	Stable under normal conditions of u	use (see section 7).		
10.2	Hazardous Decomposition Products:		e to ultraviolet light or e	exceeding shelf life. Will not degrade to	
10.3	Hazardous Polymerization:	Will not occur.			
10.4	Conditions to Avoid:	Use or storage near open flames, sincompatible substances and heav		F) or other heat sources, and proximity to	
10.5	Incompatible Substances:	Strong oxidizers.			



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MSDS-E-D100L

Prep	Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0 MSDS Revision Date: 11/19/2007			
		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 3.5		
11.3	Chronic Toxicity:	See section 3.6		
11.4	Suspected Carcinogen:	NE		
11.5	Reproductive Toxicity:	This product is not reported to produce reproductive toxicity in humans.		
11.5	Mutagenicity:	This product is not reported to produce reproductive toxicity in numans. This product is not reported to produce mutagenic effects in humans.		
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.		
	Teratogenicity:	This product is not reported to produce teratogenic effects in humans.		
	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.		
11.6	Irritancy of Product:	See Section 3.3		
11.7	Biological Exposure Indices:	NE NE		
11.8	Physician Recommendations:	Treat symptomatically.		
	,	near symptomatically.		
		10 FOOLOGICAL INFORMATION		
		12. ECOLOGICAL INFORMATION		
12.1	Environmental Stability:	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:	Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic		
		life.		
		13. DISPOSAL CONSIDERATIONS		
13.1	Waste Disposal:			
		ith federal, state or local regulations.		
13.2	Special Considerations:			
	NA			
		14. TRANSPORTATION INFORMATION		
The b	pasic description (ID Number,	proper shipping name, hazard class & division, packing group) is shown for each mode of transportation.		
		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			
15. REGULATORY INFORMATION				
15.1				
	NA			
15.2	5.2 SARA Threshold Planning Quantity: NA			
15.3				
	All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status.			
15.4				
15.5	Other Federal Requirements:			
	NA			



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MSDS-E-D100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards

MSDS Revision: 2.0

MSDS Revision Date: 11/19/2007

15. REGULATORY INFORMATION- continued

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:

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) Requirements:

The primary component of this product is not listed in Annex I of EU Directive 67/548/EEC.



16. OTHER INFORMATION

16.1 Other Information:

NA

Terms & Definitions: 16.2

See page 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.

Prepared for: 16.4

> 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/

Prepared by:

ShipMate, Inc. 18436 Hawthorne Blvd., Suite 201 Torrance, CA 90504 +1 (310) 370-3600 phone

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http://www.shipmate.com/







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MSDS-E-D100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0

MSDS Revision Date: 11/19/2007

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.

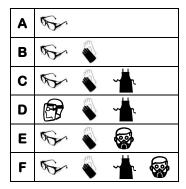
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

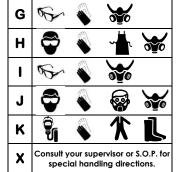
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

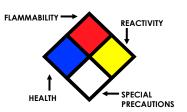
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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 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
2530	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, TC _o , LC _{lo} , & LC _o	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 K _{ow} or log K _{oc}	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
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



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MSDS-E-G100L

Pre	oared to OSHA, ACC,	, ansi, whmis, nohsc	C & 2001/58 EC Stanc	dards M	SDS Revision: 2	0.0 MS	SDS Revisio	on Date: 1	1/19/20	007
1.	. PRODUCT IDENTIFICATION				CHEMICA	L RESPO	ONSE C	ARD:	03	
1.1	Product Name:	DeoxII® GOI	DeoxIT® GOLD (formerly ProGold), G100L			RESPONSE				
1.2	Chemical Name:		See ingredients listed in section 3			TEAM PPE:				
1.3	Synonyms:	DeoxiT® GOLD G10	OOL				T			
1.4	Trade Names:	DeoxIT® GOLD G10	OOL (see list below)			WHMIS:				
1.5	Product Use:	Conditioner, enha	ncer & protector for	contacts &	connectors	HEALTH:				0
1.6	Manufacturer's Name:	CAIG Laboratories				FLAMMABI	LITY:			0
1.7	Manufacturer's Address:	12200 Thatcher Co	ourt, Poway, CA 9206	4-6876		REACTIVITY	/:			0
1.8	Business Phone:	+1 (800)-224-4123				PERSONAL	PROTEC	TION:		
1.9	Emergency Phone:	CHEMTREC -	+1 (703) 527-3	887 / +	1 (800) 42	4-9300				
1.10	Other Product Names:	Deoxi [®] GOLD G10 Deoxi [®] GOLD G10 Deoxi [®] GOLD G10 Deoxi [®] GOLD PEN Deoxi [®] GOLD WIP Deoxi [®] GOLD G10	0L, 2 ml (Part No. G1 0L, 7.4 ml (Part No. G 0L, 12 ml (Part No. G 0L, 25 ml (Part No. G N, 7 ml (Part No. G100 ES, (Part Nos. G50W, 00L, 59 ml (Part No. G 00L, 236 ml (Part No. G 00L, 472 ml (Part No. G 00L, 944 ml (Part No. G100L, 30 L (Part No. G100L)	G100L-2DB) G100L-12C) G100L-25C) OP) K-G1W-25, G100L-2) G100L-8) G100L-16) G100L-32)						
2.1	Hazard Identification: This product is NOT 1088 (1999)] and Al	classified as a HAZAR DG Code (Australia).	2. HAZARD DOUS SUBSTANCE or DeoxIT® GOLD G1000	ds DANGE	ROUS GOODS	according to t ardous and no	he classifi n-flamma	cation crit ble.	teria of	[NOHSC:
2.2	Routes of Entry:		Inhalation:	YES	Absorption:	YES	lnge:	stion:	Y	'ES
2.3	Effects of Exposure: EYES: Non-irritating when used as directed. Can cause irritation, tearing, and temporary blurred vision. 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. 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.									
2.4	SKIN: M (INGESTION: M INHALATION: U	Non-irritating when use Non-irritating when use Jocalized redness or re Not probable. Small a Jnlikely route of exp	sed as directed. Pro ash). mounts if swallowed bosure. Should va	may cause	repeated co temporary g intrations exc	ntact may ca astrointestinal i eed recomme	use temp rritation. ended ex	orary cor posure le	evels, t	
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. 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.									
2.6	Chronic Health Effects: None reported by t	he manufacturer								
2.7	Target Organs:	ne manuaciolei.								
	Eyes and skin.									
NA:	= Not Available; ND =	Not Determined; NE	= Not Established; C =	= Ceiling Lir	nit; See Sectio	n 16 for Additio	onal Defin	itions of Te	erms Us	ed

NOTE: all WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1998 format.



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MSDS-E-G100L

Prep	ared to OSHA, AC	i C, ansi, whmis, nohs	C & 2001/58 E	C Standards	MSDS F	Revision: 2	2.0	MSDS F	Revision D	ate: 11/19	9/2007
		3. CO	MPOSITIO	N & INGRI	EDIEN	INFO	RMATIC	ON .			
		1			1			•	ITS IN AIR	(mg/m³)	
l						ΔΟ	:GIH		OSHA	(g//	OTHER
						TLV	STEL	PEL	STEL	IDIH	
	CHEMICAL NAME	(S) CAS No.	RTECS No.	EINECS No.	%	ppm	ppm	ppm	ppm	ppm	
Deox	IT® GOLD G100L	Trade Secret	-	UNK	100	NE	NE	NE	NE	NE	
		made dedic.		-	1.00						1
(form	erly ProGold)			 		ļ		-			
			<u></u>	<u> </u>		<u> </u>		<u> </u>	L		l
				RST AID N	VEΔSU	RFS					
41	Einst Airds		T. 11	IKSI AID I	12/100						
4.1	First Aid: EYES:	Flush eyes thorough	v with conion	is amounts of	water fo	or at leas	t 15 mini	ites, hold	ina eveli	d(s) oper	to ensure
	LILJ.	complete flushing. If	irritation persis	sts, seek imme	diate me	edical att	ention.	,		(-) -	
	SKIN:	Remove contaminat						ater. If i	rritation p	ersists, se	ek prompt
	••••	medical attention. D									
	INGESTION:	Do not induce vomiti	ng! Drink plent	y of water. If i	rritation p	oersists, c	ontact a p	ohysician			
	INHALATION:	Remove victim to fre					ister supp	lemental	oxygen o	and seek	immediate
		medical attention. If	breathing stop	os, perform art	ificial res	piration.					
4.2	Medical Conditions Ag	ggravated by Exposure:					HEA	ITH			0
	None reported by	y the manufacturer.					825 80 2060		шту		0
							7056549 30000	MMAB			U
							REA	CTIVIT	Υ		0
						•	PRO	TECTI	/F FQU	IPMEN	T A
							<u> </u>	TECH	LLQU	TI TVILIN	1 1 7
							EYES				J
			r ribr	FIGURING		CUDEC					
	,		5. FIRE	FIGHTING	MEA:	SUKE2					
5.1	Flashpoint & Method: > 280 °C (536 °F)								ę		
5.2	Autoignition Temperate	ure:									
	NA									···	
5.3	Flammability Limits:		Lower Explo	sive Limit (LEL)	:	ND	Uppe	r Explosive	<u> Limit (UE</u>	EL):	ND
5.4	Fire & Explosion Hazard										
		carbon monoxide, hyd	irocarbons.								
5.5	Extinguishing Methods:	: m, Dry Chemical, Wate	r Eas								
5.6	Firefighting Procedures		n rog						1 4		
3.0		 IA approved self-conf	ained breathin	a apparatus c	ınd prote	ective clo	thina. Use	e a water		OX	0 >
	spray to cool co	ontainers involved in f	re. Do not u	se direct wate	er stream	ı. Conta	iner stora	ge areas	1		V
	exposed to direc	t flame contact should	d be cooled w	rith large quar	itities of v	water as i	needed to	prevent	· [\	
	weakening of co	ntainer structure. Kee	p containers c	ool until well c	after the t	fire is out	to preven	t rupture.			
	Prevent runott tro	om fire control or dilut	ion irom ente	ring sewers, a	rains, an	inking wo	iter suppl	y, or any			
	Halolal Walelway	/•									
		6	. ACCIDE	NTAL RELE	EASE N	ΛEASU	RES			,	
6.1	Spills:				··						
	Ventilate if in end	closed area. Secure s	oill area, remo	ve or minimize	all sour	ces of igr	nition, and	l maximiz	e ventilat	lion. Wipe	e and rinse
	with water. Deny	entry to all unprotect	ed individuals.	Individuals in	volved i	n the cled	anup musi	wear ap	propriate	personal	protective
	equipment.					_,					



Page 3 of 6

MSDS-E-G100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0 MSDS Revision Date: 11/19/2007 7. HANDLING & STORAGE INFORMATION Work & Hygiene Practices: Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact. Use and store in a cool, dry, well-ventilated area. Do not store near or with any incompatible materials listed in section 10. Open containers may change concentrations, keep tightly closed when not in use. Normal shelf life 2-3 years. Special Precautions: Empty containers may contain product residues. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 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 None required, when used with adequate ventilation. Eye Protection: 8.3 Wear safety glasses with side shields (ANSI Z87) under normal use conditions. None required under normal conditions of use. However, may cause skin initation in some sensitive individuals. In such cases, wear rubber or impervious plastic gloves. Use as necessary to prevent skin contact. 9. PHYSICAL & CHEMICAL PROPERTIES Density: Boiling Point: > 240 °C (464 °F) 9.2 9.3 Melting Point: NA Evaporation Rate: 9.4 NA Vapor Pressure: < 0.01 mm Hg @ 20 °C (68 °F) 9.5 Molecular Weight: NA Appearance & Color: 9.7 Light yellow/amber 9.8 Odor Threshold: Ethereal/hydrocarbon odor 9.9 Solubility: Not soluble in water 9.10 Ph 5.4 - 7.5 cSt @ 104 °F 9.11 Viscosity: 9.12 VOC (g/L): None 9.13 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. Hazardous Polymerization: Will not occur. Use or storage near open flames, sparks, high heat (>100 °F) or other heat sources, and proximity to 10.4 Conditions to Avoid: incompatible substances and heavily trafficked areas. 10.5 Incompatible Substances: Strong oxidizers.



Page 4 of 6
MSDS-E-G100L

MSDS Revision Date: 11/19/2007 Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards | MSDS Revision: 2.0 11. TOXICOLOGICAL INFORMATION This product has not been tested on animals to obtain toxicological data. There are toxicology data Toxicity 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 3.5 11.3 Chronic Toxicity: See section 3.6 11.4 Suspected Carcinogen: This product is not reported to produce reproductive toxicity in humans. 11.5 Reproductive Toxicity: This product is not reported to produce mutagenic effects in humans. Mutagenicity: 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: Irritancy of Product: See Section 3.3 11.7 Biological Exposure Indices: NE 11.8 Physician Recommendations: Treat symptomatically. 12. ECOLOGICAL INFORMATION This product will slowly volatile from soil. Components of this product will slowly decompose into **Environmental Stability:** organic compounds. Effects on Plants & Animals: There is no specific data available for this product. 12.2 Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic Effects on Aquatic Life: 13. DISPOSAL CONSIDERATIONS Waste Disposal: Dispose of in accordance with federal, state or local regulations. Special Considerations: NA 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 and the CTDGR. 49 CFR (GND): NOT REGULATED 14.2 IATA (AIR): **NOT REGULATED** IMDG (OCN): 14.3 **NOT REGULATED** TDGR (Canadian GND): **NOT REGULATED** ADR/RID (EU): **NOT REGULATED** 15. REGULATORY INFORMATION SARA Reporting Requirements: SARA Threshold Planning Quantity: TSCA Inventory Status: All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status. CERCLA Reportable Quantity (RQ): NΔ Other Federal Requirements: NA



Page 5 of 6 MSDS-E-G100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0

MSDS Revision Date: 11/19/2007

15. REGULATORY INFORMATION- continued

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:

The primary component of this product is not listed on the following state lists: Callfornia 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.

67/548/EEC (European Union) Requirements:

The primary component of this product is not listed in Annex I of EU Directive 67/548/EEC.



16. OTHER INFORMATION

16.1 Other Information:

16.2 Terms & Definitions:

See page 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 +1 (858) 486-8398 fax

http://www.caig.com/

16.5 Prepared by: ShipMate, Inc.

18436 Hawthorne Blvd., Suite 201 Torrance, CA 90504

+1 (310) 370-3600 phone

+1 (310) 370-5700 fax

http://www.shipmate.com/







Page 6 of 6 MSDS-E-G100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0

MSDS Revision Date: 11/19/2007

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.

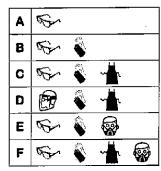
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

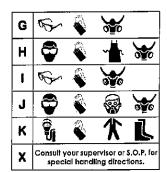
HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:





Gloves

Dust Respirator Ĝ

Airline Hood/Mask



OTHER STANDARD ABBREVIATIONS:

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

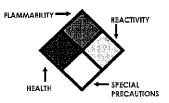
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition	Minimum temperature required to initiate combustion
Temperature	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
	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 cancentration (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
TDio, LDio, & LDs 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 (Imit
log Kow or log Koc	Coefficient of Oll/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
PSI.	Canadian Priority Substances List
TSCA	U.S. Toxic Substance Control Act
EU	Furgpean Union (Furgpean Union Directive 67/548/EEC)

EC INFORMATION:

	響			8		\bigotimes	
С	E	F	N	0	T+	Xi_	Xn
Corrosive	Explosive	Fiammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



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MSDS-E-F100L

Prep	pared to OSHA, ACC	, ANSI, WHMIS, NOHSC & 2001/58 EC Stan	dards M	SDS Re <u>vision: 2</u>	2.0 MS	DS Revisio	on Date: 1	1/19/20	007
1.	PRODUCT IDE	NTIFICATION			CHEMICA	L RESPC	ONSE CA	ARD:	03
1.1	Product Name:		DeoxIT® FaderLube F100L-L (formerly CaiLube MCL)						
1.2	Chemical Name:	See ingredients listed in section 3			TEAM PPE:				
1.3	Synonyms:	DeoxIT® FaderLube F100L			344113416	T			
1.4	Trade Names:	DeoxIT® FaderLube F100L-L and F100L-	H (see list be	elow)	WHMIS:				
1.5	Product Use:	Lubricant for conductive plastics & ca	ırbon-basec	d controls	HEALTH:				0
1,6	Manufacturer's Name:	CAIG Laboratories, Inc.			FLAMMABI	LITY:	medicalist Militari		0
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 920	64-6876		REACTIVITY				0
1.8	Business Phone:	+1 (800)-224-4123			PERSONAL	PROTEC	TION:		
1.9	Emergency Phone:	CHEMTREC +1 (703) 527-3	3887 / +	1 (800) 42	4-9300				
	Deox T® FaderLube, 2 ml (Part No. F100L-L2C) Deox T® FaderLube, 7.4 ml (Part No. F100L-L2CB) Deox T® FaderLube, 12 ml (Part No. F100L-L2C) Deox T® FaderLube, 25 ml (Part No. F100L-L2C) Deox T® FaderLube, 25 ml (Part No. F100L-L2C) Deox T® FaderLube, 57 ml (Part No. F100L-L2) Deox T® FaderLube, 236 ml (Part No. F100L-L8) Deox T® FaderLube, 472 ml (Part No. F100L-L16) Deox T® FaderLube, 944 ml (Part No. F100L-L32) Deox T® FaderLube, 30 L {Part No. F100L-L8G}								
		2. HAZARD	IDENTII	<u>FICATION</u>					
2.1		classified as a HAZARDOUS SUBSTANCE o DG Code (Australia). Deoxil [®] FaderLubef						erla of	[NOHSC:
2.2	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Inges	stion:	Y	ES
2.3	SKIN: INGESTION: INHALATION:	Non-irritating when used as directed. Can Non-irritating when used as directed. Pr (localized redness or rash). Not probable. Small amounts if swallowed Unlikely route of exposure. Should votemporary Irritating to the eyes, nose, tidizziness.	olonged or i may cause apor conce	r repeated co e temporary g entrations exc	intact may cai astrointestinal li eed recomme	use temp ritation. Inded ex	posure le	vels, f	hey are
2.4	Symptoms of Overexposure: EYES: Non-irritating when used as directed. Can cause temporary irritation, tearing, and blurred vision. 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: 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.								
2.7	None reported by target Organs:	ine manulacturer.							
<u> </u>	Eyes and skin.								

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 Z400,1-1998 format.



MATERIAL SAFETY DATA SHEET

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MSDS-E-F100L

	LABORATORIES, INC.										
Prep	ared to OSHA, AC	C, ANSI, WHMIS, NOH	C & 2001/58 E	C Standards	MSDS F	evision: 2	.0	MSDS R	evision D	ate: 11/19	9/2007
								-			
		3. CO	MPOSITIO	N & INGRI	EDIEN]	INFO	RMATIC	NC			
							EXPO	SURE LIMI	TS IN AIR	(mg/m³)	
						AC	GIH		OSHA		OTHER
					۱	TLV	STEL	PEL	STEL	IDLH	
	CHEMICAL NAME	(S) CAS No.	RTECS No.	EINECS No.	%	ppm	ppm	ppm	ppm	_ppm	
Deox	∏® FaderLube F100	L-L Trade Secre	UNK	UNK	100	NE	NE	NE	NE	NE	
	 -										
		-									
								,	·		
	· - ·		4. F	IRST AID N	MEASU	RES					
4.1	First Aid:										
	EYES:	Flush eyes thorough	ly with copiou	us amounts of	water fo	or at leas	t 15 minu	ites, hold	ing eyeli	d(s) open	to ensure
		complete flushing.									
ĺ	SKIN:	Remove contamina	ed clothing a	nd wash affec	ted area	s with so	ap and w	ater. If i	ritation p	ersists, se	ek prompt
		medical attention.									
	INGESTION:	Do not induce vomit Remove victim to in								and seek	immediate
	INHALATION:	medical attention.	breathing stop	s, a breaming ps, perform art	ificial res	n, admin piration.	aici aoppi	ielijeina:	oxygen c	alla scok	mmediale
4.2	Medical Conditions Ag	·					HEA	ITU			0
		y the manufacturer.					\$100 FEB. 18	e wagaanzagateest ween		TE SELECT	Transport
							FA	MMAB			0
	REACTIVITY)				
							PRO	TECTIV	/E EQU	IPMEN	T A
							EYES				
			5. FIRE	FIGHTING	MEAS	SURES					
5.1	Flashpoint & Method:										
	> 250 °C (482 °F)										
5.2	Autoignition Temperate NA	ure:									
5.3	Flammability Limits:		Lower Explo	osive Limit (LEL)	l:	ND	Uppe	r Explosive	Limit (UE	L):	ND
5.4	Fire & Explosion Hazard	ds:									
	Carbon dioxide,	carbon monoxide, hy	drocarbons.						_		
5.5	Extinguishing Methods:		_								
		m, Dry Chemical, Wa	er Fog						ړ. ا		
5.6	Firefighting Procedures	:: {A approved self-con	rained breathir	na annaratus a	and prote	ctive clo	thing Use	e a water	4		0 >
	spray to cool co	ontainers involved in	iire. Do not u	se direct wate	er stream	. Contai	iner stora	ge areas			
	exposed to direct	t flame contact shou	d be cooled w	rith large quar	ntities of v	vater as 1	needed to	prevent		\	7
	weakening of co	ntainer structure. Ke	p containers o	ool until well	after the f	ire is out	to preven	t rupture.			•
		om fire control or dilu	tion from ente	ring sewers, c	irains, dri	nking wo	iter supply	y, or any			
	natural waterway	·							1		
			. ACCIDE	NTAL PELL	FASFA	AFASUI	RFS				
A 1	Spills:		. ACCIDE	· 141\-ZF VPP			1120				i
6.1		closed area. Secure :	pill area. rema	ve or minimiz	e all sour	ces of iar	ilion, and	l maximiz	e ventilat	lion. Wipe	e and rinse
	with water. Deny	entry to all unprotec	ed individuals	. Individuals in	volved i	n the clea	inup musi	wear ap	propriate	personal	protective
<u></u>	equipment.										



Page 3 of 6 MSDS-E-F100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0 7. HANDLING & STORAGE INFORMATION 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: Use and store in a cool, dry, well-ventilated area. Do not store near or with any incompatible materials listed in section 10. Open containers may change concentrations, keep tightly closed when not in use. Normal shelf life 2-3 years. Empty containers may contain product residues. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 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). None required, when used with adequate ventilation. 8.3 Eve Protection: Wear safety glasses with side shields (ANSI 787) under normal use conditions. 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. Use as necessary to prevent skin contact. 9. PHYSICAL & CHEMICAL PROPERTIES Density: 9.1 0.72 9.2 Bolling Paint: > 200°C (392 °F) 9.3 Melting Point: NA 9.4 Evaporation Rate: NΑ 9.5 Vapor Pressure: < 0.01 mm Hg @ 20 °C (68 °F) 9.6 Molecular Weight: NA 9.7 Appearance & Color: Light amber 9.8 Odor Threshold: Ethereal/hydrocarbon odor 9.9 Solublity: Not soluble in water 9.10 NA Viscosity: 5.1 - 7.0 cSt @ 104 °F 9.12 VOC (g/L): None 9.13 Other Information: NΑ 10. STABILITY & REACTIVITY 10.1 Stability: Stable under normal conditions of use (see section 7). 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 Hazardous Polymerization: Conditions to Avoid: Use or storage near open flames, sparks, high heat (>100 °F) or other heat sources, and proximity to 10.4 incompatible substances and heavily trafficked areas. Incompatible Substances: Strong oxidizers.



Page 4 of 6
MSDS-E-F100L

Prep	ared to OSHA, ACC, ANSI, WH	MIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0 MSDS Revision Date: 11/19/2007				
		11. TOXICOLOGICAL INFORMATION				
11.1	Toxicity Data:	This product has not been tested on animals to obtain toxicological data. There are toxicology date 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 3.5				
11.3	Chronic Toxicity:	See section 3.6				
11.4	Suspected Carcinogen:	NE .				
11.5	Reproductive Toxicity:	This product is not reported to produce reproductive toxicity in humans.				
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.				
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.				
	Teratogenicity:	This product is not reported to produce teratogenic effects in humans.				
,,,	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.				
11.6	Infrancy of Product:	See Section 3.3				
11.7	Biological Exposure Indices:	NE				
11.8	Physician Recommendations:	Treat symptomatically.				
						
		12. ECOLOGICAL INFORMATION				
12.1	Environmental Stability:	This product will slowly volatile from soil. Components of this product will slowly decompose intorganic compounds.				
12.2	Effects on Plants & Animals:	There is no specific data available for this product.				
12.3	Effects on Aquatic Life: Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic life.					
<u> </u>						
		13. DISPOSAL CONSIDERATIONS				
13.1	Waste Disposal:	10. 101 00/11 00/10/10/10/10/10				
	Dispose of in accordance with federal, state or local regulations.					
13.2	Special Considerations: NA					
		14. TRANSPORTATION INFORMATION				
The b	pasic description (ID Number, pasic description (ID Number)	proper shipping name, hazard class & division, packing group) is shown for each mode of transportation thay 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);					
14.4	NOT REGULATED TDGR [Canadian GND]:					
14.5	NOT REGULATED ADR/RID (EU):					
14.0	NOT REGULATED					
		15. REGULATORY INFORMATION				
15.1	SARA Reporting Requirements:					
15.2	NA SARA Threshold Planning Quantity:					
	NA					
15.3	TSCA Inventory Status: All chemical substances of th	s product are listed on the TSCA inventory or are otherwise exempt from inventory status.				
15.4	CERCLA Reportable Quantity (RQ):	A BLOOM AT A THE COLUMN TO A STATE OF THE AUTHOR OF A STATE OF THE STA				
15.5	NA Other Federal Requirements:					
	NA					



18436 Hawthorne Blvd., Suite 201

Torrance, CA 90504 +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com/

MATERIAL SAFETY DATA SHEET

Page 5 of 6 MSDS-E-F100L

MSDS Revision Date: 11/19/2007 Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0 15. REGULATORY INFORMATION- continued 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 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. 67/548/EEC (European Union) Requirements: 15.8 The primary component of this product is not listed in Annex I of EU Directive 67/548/EEC. 16. OTHER INFORMATION Other Information: 16.1 NA 16.2 Terms & Definitions: See page 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 +1 (858) 486-8398 fax http://www.caig.com/ Prepared by: 16.5 ShipMate, Inc.

ShipMate



Page 6 of 6 MSDS-E-F100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.0

MSDS Revision Date: 11/19/2007

DEFINITION OF TERMS

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OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
IDIH	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:

A	5			
В	5	\$		
С	<i>₽</i>	•	~ *	
D			~₩	
E	6			
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Synthetic Apron *





Dust & Vapor Respirator

or SCBA

Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.

OTHER STANDARD ABBREVIATIONS:

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

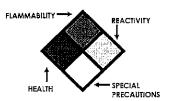
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition	Minimum temperature required to initiate combustion
Temperature	in air with no ather source of ignition
1EL	Lower Explosive Limit - lowest percent of vapor in air, by
	volume, that will explode or ignite in the presence of
	an ignifion source
UEL	Upper Explosive Limit - highest percent of vapor in air,
	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:

LDso	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
ĬDio	Lawest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD ₁₀ , LD ₁₀ , & LD ₀ or TC, TC ₀ , 1C ₁₀ , & 1C ₀	Lowest dose (or concentration) to cause lethal or 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:

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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:

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С	E	F	N	0	T+	Χí	Xn
Сопозіче	Explosive	Flommobile	Harmful	Oxidizing	Toxic	Irrilani	Harmful