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Prep	pared to OSHA, ACC	C, ANSI, WHMIS, NOHSC & 2001/58 EC Standard	ds MS	DS Revision: 2	.1 MS	DS Revision Da	ate: 02/14/2	011
1.	PRODUCT IDE	NTIFICATION			CHEMICA	L RESPONS	e card:	03
1.1	Product Name:	DeoxIT [®] D100L, D-SERIES			RESPONSE			
1.2	Chemical Name:	See ingredients listed in section 3			TEAM PPE:			
1.3	Synonyms:	DeoxIT [®] D100L				Ŧ		
1.4	Trade Names:	DeoxIT [®] D100L (see list below)			WHMIS:	\bigcirc		
1.5	Product Use:	Clean, deoxidize & improve electrical cor	ntacts &	connectors	HEALTH:			0
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.			FLAMMABI	LITY:		0
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6	6876		PHYSICAL I	HAZARDS:		0
1.8	Business Phone:	+1 (800)-224-4123			PERSONAL	PROTECTIO	N:	
1.9	Emergency Phone:	CHEMTREC +1 (703) 527-388	87 / +1	(800) 42	4-9300			
	Other Product Names: DeoxIT® D100L, 2 ml (Part No. D100L-2C, D100L-2CP) DeoxIT® D100L, 2.3 ml (Part No. D100L-58D) 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® D100L, 236 ml (Part No. D100L-2) DeoxIT® D100L, 26 ml (Part No. D100L-2) DeoxIT® D100L, 354 ml (Part No. D100L-12) DeoxIT® D100L, 354 ml (Part No. D100L-12) DeoxIT® D100L, 472 ml (Part No. D100L-12) DeoxIT® D100L, 472 ml (Part No. D100L-12) DeoxIT® D100L, 944 ml (Part No. D100L-32) DeoxIT® D100L, 30 L (Part No. D100L-32)							
		· ·						
		2. HAZARD II	DENTIF	ICATION				
2.1		T classified as a HAZARDOUS SUBSTANCE or as ADG Code (Australia). DeoxIT® D100L is non-vo					n criteria of	f [NOHSC:
2.2	Routes of Entry:	Inhalation: Y	YES	Absorption:	YES	Ingestion:		YES
2.3	Effects of Exposure: EYES: SKIN: Non-irritating when used as directed. Can cause irritation, tearing, and temporary blurred vision. SKIN: INGESTION: 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 temporary headaches and dizziness.							
2.4	Symptoms of Overexposure: 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: 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.							
2.6	Chronic Health Effects:	the menufacturer						
2.7	Target Organs:	the manufacturer.						
	Eyes and skin.							
		ot Determined; NE = Not Established;NF = Not found; nformation is included. It is located in appropriate se		-			of Terms Used	



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Prep	Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011											
	3. COMPOSITION & INGREDIENT INFORMATION											
	EXPOSURE LIMITS IN AIR (mg/m ³)											
						A.C.	GIH	SURE LIIVII	OSHA	(mg/ms)	OTHE	D
							STEL	PEL	STEL	IDLH	OTHE	<u> </u>
	CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	ppm	ppm	ppm	ppm	ppm		
DeoxIT [®] D100L		Trade Secret	NA	NA	100	NE	NE	NE	NE	NE		
			4 51									
4.1			4. FI	RST AID M	IEASUI	KE2						
4.1	Image: First Aid: 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. INHALATION: Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate											
4.2	Medical Conditions Aggravated	al attention. If	breatning stop	s, perform arti	licial res	piration.		1.711			0	
	None reported by the ma	\$ 1					HEA				0	
							FLA	MMAB	ILITY		0	
	PHYSICAL HAZARDS				0							
	PROTECTIVE EQUIPMENT A				T A							
							EYES					
			5. FIRE	FIGHTING	MEAS	SURES						
5.1	Flashpoint & Method:											
5.2	> 250 °C (482 °F) Autoignition Temperature:											
J.Z	NA											
5.3	Flammability Limits:		Lower Explo	sive Limit (LEL)	:	ND	Uppe	r Explosive	e Limit (UE	EL):	ND	
5.4	Fire & Explosion Hazards:											
5.5	Carbon dioxide, carbon Extinguishing Methods:	monoxide, hyd	rocarbons.						-			
5.5	CO ₂ , Alcohol foam, Dry (Chemical, Wate	er Foa									
5.6	Firefighting Procedures:		l l og									
	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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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.				
Storage & Handling:				
section 10. Open				
decontamination				
Wear safety glasses with side shields (ANSI Z87) under normal use conditions. 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.				
10. STABILITY & REACTIVITY				
ill not degrade to				
s, and proximity to				



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MSDS-E-D100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1

MSDS Revision Date: 02/14/2011

	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.			
	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			
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:	Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic life.			
r		13. DISPOSAL CONSIDERATIONS			
13.1	1 Waste Disposal: Dispose of in accordance with federal, state or local regulations.				
13.2	Special Considerations: NA				
		14. TRANSPORTATION INFORMATION			
		roper shipping name, hazard class & division, packing group) is shown for each mode of transportation. nay be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.			
14.1	49 CFR (GND): NOT REGULATED				
14.2	IATA (AIR):				
14.3	NOT REGULATED IMDG (OCN):				
	NOT REGULATED				
14.4	TDGR (Canadian GND):				
445	NOT REGULATED				
14.5					
147					
14.6	SCT (MEXICO): NO REGULADO				
14.7	ADGR (AUS):				
17.7	NOT REGULATED				



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Prep	Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011					
	15. REGULATORY INFORMATION					
15.1	SARA Reporting Requirements:					
45.0						
15.2	SARA Threshold Planning Quantity: NA					
15.3	TSCA Inventory Status:					
10.0	All chemical substances of this product a	are listed on the TSCA inven	tory or are otherwise exemp	t from inventory status.		
15.4	CERCLA Reportable Quantity (RQ):			2		
	NA					
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:	uct is not listed on the f	allowing state lists Californ	nia OSUA: California Proposition (E.		
	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.					
16.1	1 Other Information:					
	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/	CAIGA INC.				
16.5	Prepared by: ShipMate, Inc. P.O. Box 787 Sisters, OR. 97759-0787 +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com/	ShipMate Dangerous Goods Training & Consulting				



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MSDS-E-D100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011 **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	ACGIH American Conference on Governmental Industrial Hygienists		
TLV Threshold Limit Value			
OSHA	OSHA U.S. Occupational Safety and Health Administration		
PEL Permissible Exposure Limit			
IDLH	Immediately Dangerous to Life and Health		

FIRST AID MEASURES:

CPR	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.				

HEALTH

FLAMMABILITY

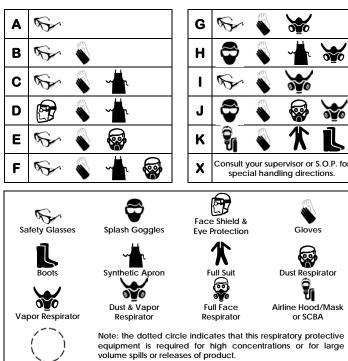
REACTIVITY PERSONAL PROTECTION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	0 Minimal Hazard	
1 Slight Hazard		
2	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

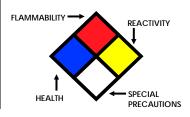
FLAMMABILITY LIMITS IN AIR:

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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

REGULATORY INFORMATION:

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

EC INFORMATION:

		E	¥		®X	×	×
С	E	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



Page 1 of 6 MSDS-E-D100L-WIPES

Pre	pared to OSHA, ACC,	, ANSI, WHMIS, NOHSC & 2001/58 EC Standard	ls MSDS R	Revision: 2.	1 MSE)S Revisio	n Date: C)2/14/20)11
1.	PRODUCT IDE	NTIFICATION			CHEMICAL	RESPC	ONSE C	ARD:	03
1.1	Product Name:	DeoxIT [®] Wipes, D-SERIES			RESPONSE				
1.2	Chemical Name:	See ingredients listed in section 3			TEAM PPE:				
1.3	Synonyms:	DeoxIT [®] D100L							
1.4	Trade Names:	DeoxIT [®] D100L (see list below)			WHMIS:	(!)			
1.5	Product Use:	Clean, deoxidize & improve electrical con	tacts & conr	nectors	HEALTH:		II		0
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.			FLAMMABIL	ITY:			0
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-68	376		PHYSICAL H		S:		0
1.8	Business Phone:	+1 (800)-224-4123			PERSONAL F				
1.9	Emergency Phone:	CHEMTREC +1 (703) 527-388	37 / +1 (8	300) 42	4-9300				
1.10	Other Product Names:	DeoxIT [®] WIPES, (Part Nos. D50W, K-D1W-25,							
		2. HAZARD ID	ENTIFIC	ATION					
2.1		classified as a HAZARDOUS SUBSTANCE or as DG Code (Australia). DeoxIT [®] D100L is non-vo					cation cri	iteria of	[NOHSC:
2.2	Routes of Entry:	Inhalation: Y	ES Ab	sorption:	YES	Inges	stion:	Y	'ES
	 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: INFALATION: 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 							they are	
2.4	dizziness. 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. 								
2.6	Chronic Health Effects: None reported by t	he manufacturer.							
2.7	Target Organs:								
	Eyes and skin.								
		t Determined; NE = Not Established;NF = Not found;	-				ions of Ter	ms Used	
NOT	E: all WHMIS required inf	formation is included. It is located in appropriate se	ctions based o	on the ANSI	Z400.1-1998 forma	at.			



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Prep	Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011										
	3. COMPOSITION & INGREDIENT INFORMATION										
									TS IN AIR	(ma/m³)	
						AC	GIH		OSHA	(g,)	OTHER
						TLV	STEL	PEL	STEL	IDLH	0
	CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	ppm	ppm	ppm	ppm	ppm	
Deox	IT® D100L	Trade Secret	NA	NA	100	NE	NE	NE	NE	NE	
	4. FIRST AID MEASURES										
4.1	 First Ald: 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. INHALATION: Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate medical attention. 										
4.2	Medical Conditions Aggrava	ed by Exposure:					HEA	ТП			0
	None reported by the	manufacturer.									_
							FLA	MMAB	ILITY		0
							PHY	SICAL	HAZAF	RDS	0
							PRO	TECTI	/E EQU	IPMEN	ТА
							EYES				
							2120				1
			5. FIRE	FIGHTING	MEAS	SURES					
5.1	Flashpoint & Method:										
5.2	> 250 °C (482 °F) Autoignition Temperature:										
J.Z	NA										
5.3	Flammability Limits:		Lower Explo	sive Limit (LEL)	:	ND	Uppe	r Explosive	e Limit (UE	L):	ND
5.4	Fire & Explosion Hazards:										
5.5	Carbon dioxide, carbo	on monoxide, hyd	rocarbons.						-		
5.5	CO ₂ , Alcohol foam, D	ry Chemical Wate	er Foa								
5.6	Firefighting Procedures:	y onemical, wate	iiog						-		
	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.										
					- V C L V	15 0 0111	חדפ				
6.1	Spills:	6.	ACCIDE	INTAL RELE	ASE IV	/IEASU	KES				
0.1	Ventilate if in enclose with water. Deny entr equipment.										



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Prep	ared to OSHA, ACC, ANSI, WHM	1IS, NOHSC & 2001/58 EC Standards	MSDS Revision: 2.1	MSDS Revision Date: 02/14/2011			
				-			
		7. HANDLING & STORA	GE INFORMATION				
7.1	Work & Hygiene Practices:	sing this product and before eating	drinking or smoking Dom	ave sailed clothing to provent prolonged			
	Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact.						
7.2		well-ventilated area. Do not store ne entrations, keep tightly closed when		ble materials listed in section 10. Open 2-3 years.			
7.3	Special Precautions:						
	Empty containers may contain	n product residues.					
	8.	EXPOSURE CONTROLS &	PERSONAL PROTEC	CTION			
8.1	Ventilation & Engineering Controls: Use with adequate ventilation equipment is available (e.g., s	n (e.g., open doors and windows, ink, safety shower, eye-wash station)	local exhaust ventilation)	. Ensure appropriate decontamination			
8.2	Respiratory Protection: None required, when used with	h adequate ventilation.					
8.3	Eye Protection: Wear safety glasses with side s	hields (ANSI Z87) under normal use c	onditions.				
8.4	Hand Protection: None required under normal or rubber or impervious plastic gl		use skin irritation in some se	ensitive individuals. In such cases, wear			
8.5	Body Protection: Use as necessary to prevent s	kin contact.					
		9. PHYSICAL & CHEN	IICAL 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	use (see section 7).				
10.2	Hazardous Decomposition Products:	Change in color signifies exposur unstable products. Discard solutio	5	ceeding shelf life. Will not degrade to			
10.3	Hazardous Polymerization:	Will not occur.					
10.4	Conditions to Avoid:	Use or storage near open flames, incompatible substances and hear) or other heat sources, and proximity to			
10.5	Incompatible Substances:	Strong oxidizers.					



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Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1

MSDS Revision Date: 02/14/2011

	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.				
	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				
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:	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: Dispose of in accordance wi	th federal, state or local regulations.				
13.2	Special Considerations:					
	NA					
	14. TRANSPORTATION INFORMATION					
		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):					
14.3						
	NOT REGULATED					
14.4						
14.5	NOT REGULATED					
14.5	ADR/RID (EU): NOT REGULATED					
14.6	SCT (MEXICO):					
14.0	NO REGULADO					
14.7	ADGR (AUS):					
	NOT REGULATED					



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WIPES

Prep	ared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011					
	15. REGULATORY INFORMATION					
15.1	SARA Reporting Requirements: NA					
15.2	SARA Threshold Planning Quantity:					
	NA					
15.3	TSCA Inventory Status:					
15.4	All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status. CERCLA Reportable Quantity (RQ):					
15.4	NA					
15.5	Other Federal Requirements:					
	ΝΑ					
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 not listed in Annex I of EU Directive 67/548/EEC.					
	16. OTHER INFORMATION					
16.1	Other Information:					
10.1	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/					
16.5	Prepared by: ShipMate, Inc. P.O. Box 787 Sisters, OR. 97759-0787 +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com/					



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MSDS-E-D100L-WIPES

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1

DEFINITION OF TERMS

MSDS Revision Date: 02/14/2011

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.

HEALTH

FLAMMABILITY

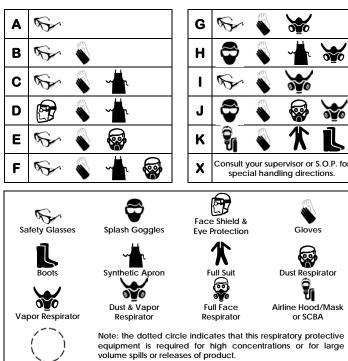
REACTIVITY PERSONAL PROTECTION

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

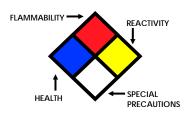
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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,
	by volume, that will explode or ignite in the presence of
	an ignition source

HAZARD RATINGS:

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



TOXICOLOGICAL INFORMATION:

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

REGULATORY INFORMATION:

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

EC INFORMATION:

		E	¥		®X	×	×
С	E	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



Page 1 of 7 MSDS-E-DN5MS-

15

Prep	pared to OSHA, ACC	, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3	.1 MSC	S Revision Date: 01/29/2	2011	
1.	PRODUCT IDE	NTIFICATION	CHEMICAL	RESPONSE CARD:	01	
1.1	Product Name:	DeoxIT [®] D-Series, DN5MS-15, 5% Spray, 14 g	RESPONSE		-	
1.2	Chemical Name:	See ingredients listed in section 2	TEAM PPE:			
1.3	Synonyms:	DeoxIT [®] , DN5MS-15, 5% Spray				
1.4	Trade Names:	DeoxIT [®] , DN5MS-15, 5% Spray	WHMIS:	$\bigcirc \bigcirc$		
1.5	Product Use:	Clean, deoxidize & improve electrical contacts & connectors	HEALTH:	· · ·	1	
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.	FLAMMABIL	ITY:	1	
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876	PHYSICAL H	AZARDS:	0	
1.8	Business Phone:	+1 (800)-224-4123	PERSONAL F	PROTECTION:	В	
1.9	Emergency Phone:	CHEMTREC +1-800-424-9300/+1-703-527-3	887			
1.10	Other Product Names:	NA				
		2. HAZARD IDENTIFICATION				
2.1	2.1 Hazard Identification: This product is Classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia). Colorless, volatile liquid with ethereal and faint sweetish odor. Non-flammable material. 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. At high temperatures (>250°C), decomposition products may include Hydrofluoric Acid (HF) and carbonyl halides.					
2.2	Routes of Entry:	Inhalation: YES Absorption:	YES	Ingestion:	YES	
2.3	 Effects of Exposure: EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash). INGESTION: Gastrointestinal irritation and central nervous system depression. INHALATION: Central nervous system depressant. Irritating to the upper respiratory tract. 					
2.4						
2.5	 Acute Health Effects: EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash). INGESTION: Gastrointestinal irritation and central nervous system depression. INHALATION: Central nervous system depressant. Irritating to the upper respiratory tract. 					
2.6	 Chronic Health Effects: EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash). INGESTION: Gastrointestinal irritation and central nervous system depression. INHALATION: Central nervous system depressant. Irritating to the upper respiratory tract. 					
2.7	Target Organs: Eyes, skin and resp		-			
	1					
		ot Determined; NE = Not Established; NF; Not found; C = Ceiling Limit; See Sec formation is included. It is located in appropriate sections based on the ANS				



Page 2 of 7

Prep	Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011													
		3. CON	IPOSITION	& INGRE	DIENT	INFO	DRM/	ATIO	Ν					
				1	1			XPOSL		IITS IN	AIR (m	a/m³))	
						AC			NOHSC			OSHA		
						pp	m		ppm			ppm		OTHER
		CACNE	DIFCCN		%	TI \ /	стгі	ES-	ES-	ES-	TI 1/	стгі		
111	CHEMICAL NAME(S) 3,3-PENTAFLUOROPROPANE	CAS No. 460-73-1	RTECS No. UNK	EINECS No. 419-170-6	≤ 75	TLV 300	STEL NE	TWA NF	STEL NF	PEAK NF	TLV 300	NE	IDLH NE	
		400-73-1	UNK	419-170-0	-	300	INC	INF	INF	INF	300	INE	INE	
	OCARBON PROPELLANT:				≤ 20									
-	OBUTANE	75-28-5	TZ4300000	200-857-2	NA	NE	NE	NF	NF	NF	NE	NE	NE	
Р	ROPANE	74-98-6	TX2275000	200-827-9	NA	NE	NE	NF	NF	NF	1000	NE	NE	
ISOPR	OPYL ALCOHOL	67-63-0	NT8050000	200-661-7	≤ 3	400	NE	983	500	1230	400	NE	2000	
Deox	IT® D100L	TRADE SECRET	NA	NA	≤ 5	NE	NE	NF	NF	NF	NE	NE	NE	
			4. FI	RST AID M	EASU	RES								
4.1	First Aid:													
		es thoroughly							es, hole	ding e	yelid(s) ope	en to	ensure
	•	te flushing. If ir												
		contaminate										sists, s	seek p	prompt
	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.													
		-	-											
	INHALATION: Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate medical attention. If breathing stops, perform artificial respiration.													
4.2	Medical Conditions Aggravated by	Exposure:						HEAL	тн					1
	None reported by the manufacturer.													
	FLAMMABILITY 1			1										
	PHYSICAL HAZARDS 0				0									
	PROTECTIVE EQUIPMENT B				В									
		EYES SKIN					5							
	EYES SKIN													
			5 FIRFI	FIGHTING	ΜΕΔ		\$							
5.1	Flashpoint & Method:		0. TINLI				•							
	ND. Level 1 aerosol.													
5.2	Autoignition Temperature:													
	412 °C (774 °F) – 1,1,1,3,3-F	Pentafluoropro	pane											
5.3	Flammability Limits:		Lower Explos	sive Limit (LEL):		NA	ι	Jpper E	xplosiv	/e Limit	: (UEL):		Ν	A
5.4	Fire & Explosion Hazards:													
	Carbon dioxide, carbon m	ionoxide, hydr	ocarbons.											
5.5	Extinguishing Methods: CO ₂ , Alcohol foam, Dry Cl	omical Water	Fog											
5.6	Firefighting Procedures:		rog											
0.0	Wear NIOSH/MSHA approv	ed self-contai	ined breathing	n apparatus ar	nd prote	ective c	lothing	. Use a	a wate	er 🖣	$\langle 1$		C 0	
	spray to cool containers													
	exposed to direct flame c	ontact should	be cooled wi	th large quant	ities of v	water a	is need	led to	prever	nt)	
	weakening of container st													
	Prevent runoff from fire co	ontrol or dilutio	on from enteri	ng sewers, dra	ains, dri	nking	water s	upply,	or an	У				
	natural waterway.													



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Prep	pared to OSHA, ACC, ANSI, NO	DHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011					
		6. ACCIDENTAL RELEASE MEASURES					
.1	protective equipment. Area commercial absorbent mat	entry to all unprotected individuals. Individuals involved in the cleanup should wear appropriate personal a may become slippery. Absorb product onto porous material, such as sand, clay, diatomaceous earth or erial. Place into leak-proof, U.S. DOT-approved containers. If necessary, cover all drains and dike well nt runoff into sewers, drains, and all waterways. Contact appropriate local or provincial authorities for					
		7. HANDLING & STORAGE INFORMATION					
.1	Work & Hygiene Practices:						
	Wash hands thoroughly afte skin contact.	r using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged					
.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.						
.3	Special Precautions: Empty containers may contain product residues.						
	8	8. EXPOSURE CONTROLS & PERSONAL PROTECTION					
.1		tion (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontamination ., sink, safety shower, eye-wash station).					
.2	Respiratory Protection: None required, when used with adequate ventilation.						
.3	Eye Protection: Wear safety glasses with side shields (ANSI Z87) under normal use conditions.						
.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.						
.5	Body Protection: Use as necessary to prevent	t skin contact.					
		9. PHYSICAL & CHEMICAL PROPERTIES					
1	Density:	NA					
2	Boiling Point:	15 °C (59 °F) - 1,1,1,3,3-Pentafluoropropane					
3	Melting Point:	NA					
1	Evaporation Rate:	NA					
5	Vapor Pressure:	50 +/- 5 psig @ 20 °C					
ò	Molecular Weight:	NA					
7	Appearance & Color:	Light red, aerosol					
8	Odor Threshold:	Ethereal/hydrocarbon odor					
9	Solubility:	Not soluble in water					
10	рН	NA					
.11	Viscosity:	ND					
.12	Other Information: VOC Content	268 grams/liter					



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Prep	ared to OSHA, ACC, ANSI, NOHS	C, WHMIS & 2001/58 EC Standards	MSDS Revision: 3.1	MSDS Revision Date: 01/29/2011			
		10. STABILITY &	REACTIVITY				
			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 flam	es, sparks, high heat (>100 °F) or ot	ther heat sources, and prox	imity to incompatible substances and			
	heavily trafficked areas.						
10.5	Incompatible Substances:						
	Strong oxidizers.						
		11. TOXICOLOGICA					
11.1	Toxicity Data:						
				on (dogs) - No effects noted at 35,000			
				as 44,000 ppm. Acute Inhalation (rat):			
				Acute Inhalation (mouse): 4-hr. LC50 >			
	100,000 ppm. No lethality at 100,000 ppm. Evidence of transient underactivity during exposure.						
11.2	Acute Toxicity:						
	See section 2.5						
11.3	Chronic Toxicity:						
	See section 2.6						
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 prod	uce mutagenic effects in hu	mans.			
	Embryotoxicity:	This product is not reported to prod	uce embryotoxic effects in h	numans.			
	Teratogenicity:	This product is not reported to prod	6				
	Reproductive Toxicity: This product is not reported to produce reproductive effects in humans.						
11.6	Irritancy of Product:						
	See Section 2.3						
11.7	Biological Exposure Indices:						
	NE						
11.8	Physician Recommendations:						
	Treat symptomatically.						
		12. ECOLOGICAL I					
		12. LOOLOGICAL					
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							
	1,1,1,3,3-Pentafluoropropane: Partition Coefficient: $\log P_{OW} = 1.35 @ 21.5^{\circ}C$; 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						
		13. DISPOSAL CON	NSIDERATIONS				
13.1	Waste Disposal:						
		ederal, state or local regulations.					
13.2	Special Considerations:						
	NA						



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Prep	ared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MS	DS Revision Date: 01/29/2011
	14. TRANSPORTATION INFORMATION	
	asic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation.	
14.1	onal descriptive information may be required by 49 CFR, IATA/ICAO, IMDG, SCT, ADGR and the CTDGR. 49 CFR (Ground):	CONSUMER COMMODITY
14.1	CONSUMER COMMODITY, ORM-D	
14.2	IATA (Air):	ORM-D
	ID8000, CONSUMER COMMODITY, 9 (≤ 820 ml)	
	UN1950, AEROSOLS, 2.2 (> 820 ml)	
14.3	IMDG (Ocean):	
	UN1950, AEROSOLS, 2.2, LTD QTY (≤ 1.0 L)	
14.4	IDGR (Canada):	
	Mark Package "Limited Quantity" or "Quantité limitée" or "Ltd Qty" or "Quant Ltée"	
	(≤ 1.0 L)	acort
14.5	ADR/RID (EU):	9 35 500
	UN1950, AEROSOLS, 2, 5 A, ADR, LTD QTY (X ≤ 1.0 L)	CONSUL
14.6		
14.7	UN1950, AEROSOLS, 2.2, CANTIDAD LIMITADA ADGR (Australia):	
14.7	UN1950, AEROSOLS, 2.2, LTD QTY	
	501750, AEROSOES, 2.2, ED Q11	
		« Y »
	15. REGULATORY INFORMATION	
15.1	SARA Reporting Requirements:	
	ΝΑ	
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	n inventory status.
15.4	CERCLA Reportable Quantity (RQ):	
	NA	
15.5	Other Federal Requirements:	
	Contains HFC-245fa, a greenhouse gas, a substance which may contribute to global warming. Regul	ated under Section 612 (SNAP) of
15.6	the Clean Air Act and 40 CFR Part 82, subpart G. Other Canadian Regulations	
0.01	5	
	This product has been classified according to the hazard criteria of the Controlled Products Regulat (CPR) and the MSDS contains all of the information required by the CPR. The components of this products of the product of the components of the product of the p	
	are listed on the DSL/NDSL. None of the components of this product are listed on the Prior	
	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; Per	•
	List 34 323 Appendix A; Wisconsin Hazardous Substances List NR 605.09; Minnesota Hazardous S	
	Substances List.	
15.8	67/548/EEC (European Union) Requirements:	
	The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC.	



Page 6 of 7

MSDS-E-DN5MS-15

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011 **16. OTHER INFORMATION** Other Information: 16.1 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/ 16.5 Prepared by: ShipMate, Inc. ShipMate[®] P.O. Box 787 Sisters, OR 97759-0787 310-370-3600 phone 310-370-5700 fax http://www.shipmate.com/



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MSDS-E-DN5MS-15

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

MSDS Revision: 3.1

MSDS Revision Date: 01/29/2011

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
--	---------	----------------------------------

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

EXPOSURE LIMITS IN AIR:

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

FIRST AID MEASURES:

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

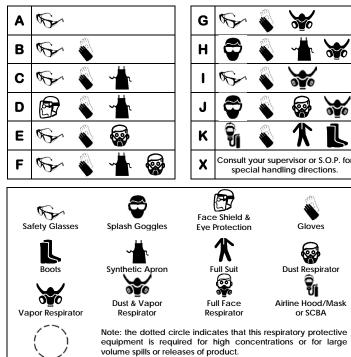
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:



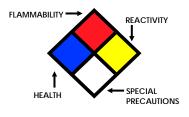
OTHER STANDARD ABBREVIATIONS:

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

Autoignition Temperature						
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
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			
TLm	Median threshold limit		
log Kow or log Koc	Coefficient of Oil/Water Distribution		

REGULATORY INFORMATION:

WHMIS	S Canadian Workplace Hazardous Material Information System						
DOT	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:

		*	¥		*	×	×
С	E	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



Page 1 of 6

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011										
1.	1. PRODUCT IDENTIFICATION				CHEM	IICAL	RESPC	ONSE C	CARD:	03
1.1	Product Name:	DeoxIT [®] G100L, G-SERIES (forme	erly ProC	Gold)	RESPONSE					
1.2	Chemical Name:	See ingredients listed in section 3			TEAM F	PPE:				
1.3	Synonyms:	DeoxIT [®] Gold G100L					$\overline{\mathbf{T}}$			
1.4	Trade Names:	DeoxIT [®] Gold G100L (see list below)			WHMIS):	\bigcirc			
1.5	Product Use:	Conditioner, enhancer & protector for cor	ntacts & c	connectors	HEALTH	 :			•	0
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.			FLAMN	/IABILI	ΓY:			0
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-68	876		PHYSC	IAL HA	AZARDS	S:		0
1.8	Business Phone:	+1 (800)-224-4123			PERSO	NAL P	ROTEC	TION:		
1.9	Emergency Phone:	CHEMTREC +1 (703) 527-388	37 / +1	(800) 42	4-9300)				
1.10	0 Other Product Names: DeoxIT® GOLD G100L, 2 ml (Part No. G100L-2C, G100L-2CP) GOLD DeoxIT® GOLD G100L, 7.4 ml (Part No. G100L-2DB) DeoxIT® GOLD G100L, 12 ml (Part No. G100L-12C) DeoxIT® GOLD G100L, 25 ml (Part No. G100L-25C) DeoxIT® GOLD PEN, 7 ml (Part No. G100P) DeoxIT® GOLD G100L, 59 ml (Part No. G100L-2) DeoxIT® GOLD G100L, 59 ml (Part No. G100L-2) DeoxIT® GOLD G100L, 236 ml (Part No. G100L-2) DeoxIT® GOLD G100L, 472 ml (Part No. G100L-8) DeoxIT® GOLD G100L, 472 ml (Part No. G100L-16) DeoxIT® GOLD G100L, 944 ml (Part No. G100L-32) DeoxIT® GOLD G100L, 30 L (Part No. G100L-8G) DeoxIT® GOLD G100L, 30 L (Part No. G100L-32)									
		2. HAZARD ID	DENTIFI	CATION						
2.1		classified as a HAZARDOUS SUBSTANCE or as DG Code (Australia). DeoxIT® Gold G100L is n							riteria of	[NOHSC:
2.2	Routes of Entry:	Inhalation: Y	'ES	Absorption:	Y	/ES	Inges	tion:	١	/ES
2.3										
2.4	dizziness. 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: 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. 									
2.6	6 Chronic Health Effects: None reported by the manufacturer.									
2.7	Target Organs:									
	Eyes and skin.									
NA =	NA = Not Available; ND = Not Determined; NE = Not Established; NF = Not found; C = Ceiling Limit; See Section 16 for Additional Definitions of Terms Used									



Page 2 of 6

Prep	ared to OSHA, ACC, AN	ISI, WHMIS, NOHSO	C & 2001/58 EC	C Standards	MSDS R	evision: 2	.1	MSDS R	evision Da	ate: 02/14	/2011	
	3. COMPOSITION & INGREDIENT INFORMATION											
							EXPO	SURE LIMI	TS IN AIR	(mg/m³)		
						AC	GIH		OSHA		OTHE	2
					%	TLV	STEL	PEL	STEL	IDLH		
Deox	CHEMICAL NAME(S)	CAS No. Trade Secret	RTECS No.	EINECS No.	100	ppm NE	ppm NE	ppm NE	ppm NE	ppm NE		
	erly ProGold)				100	INL	INL		INL	INL		
(ioiiii												
			4. FI	RST AID M	FASU	RES						
4.1	First Aid:		1. 11		271001							
		h eyes thoroughly						ites, hold	ing eyelio	d(s) open	to ensu	re
		nplete flushing. If	•									
		nove contaminate dical attention. Do									ек prom	pt
		not induce vomitir										
		nove victim to free					ster supp	lemental	oxygen a	and seek	immedia	te
		dical attention. If	breathing stop	s, perform arti	ficial res	piration.					-	
4.2	Medical Conditions Aggravat						HEA	LTH			0	
	None reported by the	manulacturei.					FLA	MMAB	ILITY		0	
									HAZAF	אסכ	0	
							PRO		<u>/E EQU</u>	IPMEN	T A	
							EYES					
			5. FIRE	FIGHTING	MEAS	SURES						
5.1	Flashpoint & Method: > 280 °C (536 °F)											
5.2	Autoignition Temperature:											
	NA											
5.3	Flammability Limits:		Lower Explo	sive Limit (LEL)		ND	Uppe	r Explosive	e Limit (UE	EL):	ND	
5.4	Fire & Explosion Hazards: Carbon dioxide, carbo	on monovido, hvd	rocarbons									
5.5	Extinguishing Methods:	on monoxide, nyu	IUCAIDUIIS.						_			
	CO ₂ , Alcohol foam, Di	y Chemical, Wate	er Fog									
5.6	Firefighting Procedures:										0	
	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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Prep	ared to OSHA, ACC, ANSI, WHM	IIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011							
	7. HANDLING & STORAGE INFORMATION								
7.1	Work & Hygiene Practices: Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact.								
7.2	Storage & Handling: 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.								
7.3	Special Precautions:								
	Empty containers may contain	product residues.							
	8.	EXPOSURE CONTROLS & PERSONAL PROTECTION							
8.1		n (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontamination ink, 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 s	hields (ANSI Z87) under normal use conditions.							
8.4	Hand Protection:	onditions of use. However, may cause skin irritation in some sensitive individuals. In such cases, wear							
8.5	Body Protection: Use as necessary to prevent sk	in contact.							
		9. PHYSICAL & CHEMICAL PROPERTIES							
9.1	Density:	0.72							
9.2	Boiling Point:	> 240 °C (464 °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 yellow/amber							
9.8	Odor Threshold:	Ethereal/hydrocarbon odor							
9.9	Solubility:	Not soluble in water							
9.10	Ph	NA							
9.11	Viscosity:	5.4 – 7.5 cSt @ 104 °F							
9.12	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.							
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.							



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MSDS-E-G100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1

MSDS Revision Date: 02/14/2011

	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								
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. This product is not reported to produce reproductive effects in humans.						
11.6	Reproductive Toxicity: Irritancy of Product:							
11.7	Biological Exposure Indices:	See Section 3.3						
11.8	Physician Recommendations:	NE						
11.0	Thysician Recommendations.	Treat symptomatically.						
		12. ECOLOGICAL INFORMATION						
12.1	Environmental Stability:	This product will slowly volatile from soil. Components of this product organic compounds.	will slowly decompose into					
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 fallife.	atal to overexposed aquatic					
		13. DISPOSAL CONSIDERATIONS						
13.1	Waste Disposal: Dispose of in accordance w	ith federal, state or local regulations.						
13.2	Special Considerations:							
	NA							
		14. TRANSPORTATION INFORMATION						
		proper shipping name, hazard class & division, packing group) is shown for e may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.	ach mode of transportation.					
14.1	49 CFR (GND): NOT REGULATED							
14.2	IATA (AIR):							
	NOT REGULATED							
14.3	3 IMDG (OCN): NOT REGULATED							
14.4								
4.1-	NOT REGULATED							
14.5								
14.6	NOT REGULATED SCT (MEXICO):							
14.0	NO REGULADO							
14.7	ADGR (AUS):							
	NOT REGULATED							



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Prep	ared to OSHA, ACC, ANSI, WHMIS, NOHSC	& 2001/58 EC Standards	MSDS Revision: 2.1	MSDS Revision Date: 02/14/2011					
	15. REGULATORY INFORMATION								
15.1									
	NA								
15.2	SARA Threshold Planning Quantity:								
15.3	NA TSCA Inventory Status:								
15.5	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):								
	NA								
15.5	Other Federal Requirements:								
	NA								
15.6	Other Canadian Regulations								
	This product has been classified accordi (CPR) and the MSDS contains all of the in								
	are listed on the DSL/NDSL. None of								
	Substances List.								
15.7	State Regulatory Information:								
	The primary component of this produ								
	Massachusetts Right to Know List of Che								
	List 34 323 Appendix A; Wisconsin Haz Substances List.			bus substances list; and fiolida loxic					
15.8	67/548/EEC (European Union) Requirements:								
	The primary component of this product is	s not listed in Annex I of EU I	Directive 67/548/EEC.						
		16. OTHER INFO	RMATION						
16.1	Other Information:								
	NA								
16.2	Terms & Definitions:								
14.0	See page last page of this MSDS.								
16.3	Disclaimer: This Material Safety Data Sheet is offe	and pursuant to $OSHA/s$	Hazard Communication St	tandard, 29 CFR §1910.1200. Other					
	government regulations must be review								
	knowledge, the information contained h								
	are not guaranteed and no warranties								
	relates only to the specific product(s). considered. Data may be changed from			s, all component properties must be					
16.4	Prepared for:								
10.4	CAIG Laboratories, Inc.								
	12200 Thatcher Court								
	Poway, CA 92064-6876	LABORATORIES, INC.							
	+1 (800) CAIG-123 (244-4123) phone +1 (858) 486-8398 fax								
	http://www.caig.com/								
16.5	Prepared by:	٨							
	ShipMate, Inc.								
	P.O. Box 787 Sisters, OR. 97759-0787								
	+1 (310) 370-3600 phone	Dangerous Goods Training & Consulting							
	+1 (310) 370-5700 fax								
	http://www.shipmate.com/								



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MSDS-E-G100L

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 1.1 MSDS Revision Date:

01/05/2011

DEFINITIONS 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	ACGIH American Conference on Governmental Industrial Hygienis		
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	1 Slight Hazard			
2	Moderate Hazard		PHYSIC	
3	3 Severe Hazard			
4	4 Extreme Hazard		PERSONAL	



PERSONAL PROTECTION RATINGS:

4	\$		G	Ś	and the	~~	
E	3 5		н	Î	the second	*	¥
C	• • •	~ *	I	Ś	the second	¥	
۵	D 😰 🐳	~	J	Ŷ	and the second		¥
E	E 🦻 🗳		κ	Î	and the	⋪	L
F	- 🎤 🌒	· I	X			ervisor or Iling direc	S.O.P. for tions.
		2000.000		0			
		8				Sund	
	S.	$\mathbf{\Psi}$	Face	e Shield &			`
	Safety Glasses	Splash Goggles	Eye l	Protectior	ı	Glov	es
	Boots	Synthetic Apron	-			Dust Resp	P
	boots						Jiatoi
		50					i
	Con a con	Dust & Vapor Half-	Fu	ull Face	А	irline Hoo	d/Mask
Fu	ull Face Respirator	Mask Respirator	Re	spirator		or SC	BA

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

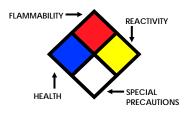
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air,
	by volume, that will explode or ignite in the presence
	of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air,
	by volume, that will explode or ignite in the presence
	of 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, TCo, LClo, & LCo	toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TLm	Median threshold limit
log Kow or log Koc	Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

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

EC INFORMATION:

t*∏ ∎		X	*			×	×
С	Е	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



Page 1 of 6 MSDS-E-G100L-WIPES

Prep	Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011							
	1. PRODUCT IDENTIFICATION CHEMICAL RESPONSE CARD: 03							
1.	. PRODUCT IDENTIFICATION				CHEMICAL RESPONSE			
1.1	Product Name:	DeoxIT [®] Gold G-SERIES, WIPES,		юг				
		(formerly ProGold)	RESPON TEAM P					
1.2	Chemical Name:	See ingredients listed in section 3		1 L.				
1.3	Synonyms:	DeoxIT [®] Gold G100L			(F			
1.4	Trade Names:	DeoxIT® Gold G100L (see list below)	WHMIS:		\bigcirc			
1.5	Product Use:	Conditioner, enhancer & protector for contacts & connectors	HEALTH	:			0	
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.	FLAMM	ABILI	TY:		0	
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876	PHYSIC	AL H	AZARDS:		0	
1.8	Business Phone:	+1 (800)-224-4123	PERSON	JAL P	ROTECTIC	N:		
1.9	Emergency Phone:	CHEMTREC +1 (703) 527-3887 / +1 (800) 42	24-9300					
1.10	Other Product Names:	DeoxIT® Gold WIPES, (Part Nos. G50W, K-G1W-25, K-G1W-50, G1	IW)					
		2. HAZARD IDENTIFICATION						
2.1		classified as a HAZARDOUS SUBSTANCE or as DANGEROUS GOOD OG Code (Australia). DeoxIT [®] Gold G100L is non-volatile, non-haz				on criteria	of [NOHSC:	
2.2	Routes of Entry:	Inhalation: YES Absorption	: YE	ES	Ingestion	1:	YES	
2.3								
2.4								
2.5								
2.6	Chronic Health Effects: None reported by th	ne manufacturer.						
2.7	Target Organs: Eyes and skin.							
	•							
NA =	Not Available; ND = Not	t Determined; NE = Not Established;NF = Not found; C = Ceiling Limit; See Se	ection 16 for A	Additio	nal Definitions	of Terms Use	ed	

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

MSDS for MCM: #200-455



Page 2 of 6 MSDS-E-G100L-WIPES

						r			<u>т</u>				
Prep	ared to OSHA, ACC	, ANSI, W	VHMIS, NOHSC	C & 2001/58 EC	C Standards	MSDS R	evision: 2	.1	MSDS F	Revision D	ate: 02/14	4/201	1
			2 001										
			3. CON	/IPOSITION			INFO						
									SURE LIM	TS IN AIR	(mg/m³)		
								GIH		OSHA		0	THER
	CHEMICAL NAME(S	3	CAS No.	RTECS No.	EINECS No.	%	TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm		
Deox	IT [®] Gold G100L	<i>.</i>		NA	NA	100	NE	NE	NE	NE	NE		
(formerly ProGold)						100	INL						
(10111	elly PloGold)												
				<u>а</u> ГІ									
				4. FI	RST AID N	IEA201	KE2						
4.1	First Aid: EYES:	Fluch ov	es thoroughly	y with copiou	s amounts of	water fo	r at loas	t 15 minu	itos hold	ing ovoli	d(s) oper	to c	ncuro
				irritation persis						ing cycik			, insure
				d clothing an								ek p	rompt
				o not wear cor		0							
				g! Drink plent	•	•		•	5				
				sh air at once. breathing stop				ster supp	iementai	oxygen a	ina seek	Imme	ediate
4.2	Medical Conditions Aggr			5									0
=	None reported by	-						HEA	LIH				0
								FLA	MMAB	ILITY			0
	PHYSICAL HAZARDS					0							
	PROTECTIVE EQUIPMENT				Т	Α							
								EYES					
				5 FIRE	FIGHTING								
5.1	Flashpoint & Method:			J. TIKL									
	> 280 °C (536 °F)												
5.2	Autoignition Temperature	e:											
	NA			T								-	
5.3	Flammability Limits:			Lower Explo	sive Limit (LEL)	:	ND	Uppe	r Explosive	e Limit (UE	iL):	N)
5.4	Fire & Explosion Hazards: Carbon dioxide, ca		onovide hvd	rocarbons									
5.5	Extinguishing Methods:		onoxide, nga										
	CO2, Alcohol foam	n, Dry Ch	emical, Wate	er Fog									
5.6	Firefighting Procedures:										0	0	
	Wear NIOSH/MSHA spray to cool con	A approv	red self-conta	ined breathin	g apparatus a	ind prote	ctive clo	thing. Use	e a water			U	
	exposed to direct										\mathbf{X}	Υ	
	weakening of cont	tainer str	ucture. Keep	containers c	ool until well a	after the f	ire is out	to preven	t rupture.		\sim		
	Prevent runoff from natural waterway.	n fire co	ontrol or diluti	on from enter	ing sewers, d	rains, dri	nking wa	iter suppl	y, or any	,			
	natural waterway.												
			6.	ACCIDE	NTAL RELE	EASE N	/IEASU	RES					
6.1	Spills:												
	Ventilate if in enclo												
	with water. Deny e equipment.	entry to a	all unprotecte	a individuals.	Individuals in	ivolved ir	n the clea	anup mus	t wear ap	propriate	personal	prote	ective
	cquipment.												



Page 3 of 6 MSDS-E-G100L-WIPES

Prep	pared to OSHA, ACC, ANSI, WHM	MIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011					
		7. HANDLING & STORAGE INFORMATION					
7.1	Work & Hygiene Practices: Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact.						
7.2	Storage & Handling: 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.						
7.3	Special Precautions: Empty containers may contain	n product residues.					
	8.	EXPOSURE CONTROLS & PERSONAL PROTECTION					
8.1		on (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontaminati sink, safety shower, eye-wash station).					
8.2	Respiratory Protection: None required, when used wit	th adequate ventilation.					
8.3	Eye Protection: Wear safety glasses with side	shields (ANSI Z87) under normal use conditions.					
8.4	Hand Protection:	conditions of use. However, may cause skin irritation in some sensitive individuals. In such cases, we					
8.5	Body Protection: Use as necessary to prevent s	kin contact.					
		9. PHYSICAL & CHEMICAL PROPERTIES					
9.1	Density:	0.72					
9.2	Boiling Point:	> 240 °C (464 °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 yellow/amber					
9.8	Odor Threshold:	Ethereal/hydrocarbon odor					
9.9	Solubility:	Not soluble in water					
9.10	Ph	NA					
9.11	Viscosity:	5.4 – 7.5 cSt @ 104 °F					
9.12	VOC (g/L):	None					
9.13	Other Information:	NA					
		10. STABILITY & REACTIVITY					
10.1	Stability:	10. STABILITY & REACTIVITY Stable under normal conditions of use (see section 7).					
10.1 10.2	Stability: Hazardous Decomposition Products:						
	, , , , , , , , , , , , , , , , , , ,	Stable under normal conditions of use (see section 7). Change in color signifies exposure to ultraviolet light or exceeding shelf life. Will not degrade					
10.2	Hazardous Decomposition Products:	Stable under normal conditions of use (see section 7). Change in color signifies exposure to ultraviolet light or exceeding shelf life. Will not degrade unstable products. Discard solution.					



Page 4 of 6 MSDS-E-G100L-WIPES

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1

MSDS Revision Date: 02/14/2011

		11. TOXICOLOGICAL INFORMATION	
11.1	Toxicity Data:	This product has not been tested on animals to obtain toxicological data for the components of this product, which are found in the scientific litera- 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	Irritancy 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 organic compounds.	will slowly decompose into
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 fa	atal to overexposed aquatic
		·	
		13. DISPOSAL CONSIDERATIONS	
13.1	Waste Disposal: Dispose of in accordance wi	th federal, state or local regulations.	
13.2	Special Considerations: NA		
		14. TRANSPORTATION INFORMATION	
		proper shipping name, hazard class & division, packing group) is shown for ea may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.	ach mode of transportation.
14.1	49 CFR (GND): NOT REGULATED		
14.2	iata (Air): Not regulated		
14.3	IMDG (OCN): NOT REGULATED		
14.4	TDGR (Canadian GND):		
14.5	ADR/RID (EU):		
14.0			
14.6	SCT (MEXICO):		
	NO REGULADO		
14.7	ADGR (AUS):		
	NOT REGULATED		



Page 5 of 6 MSDS-E-G100L-

WIPES

Prep	ared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011
15.1	15. REGULATORY INFORMATION
15.1	SARA Reporting Requirements: NA
15.2	SARA Threshold Planning Quantity:
	NA
15.3	TSCA Inventory Status:
15.4	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): NA
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 not listed in Annex I of EU Directive 67/548/EEC.
	The philinary component of this product is not listed in Annex For Ed Directive 07/546/EEC.
	16. OTHER INFORMATION
16.1	Other Information:
-	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
16.5	http://www.caig.com/ Prepared by:
	ShipMate Inc
	P.O. Box 787
	Sisters, OR. 97759-0787 Dangerous Goods +1 (310) 370-3600 phone Training & Consulting
	+1 (310) 370-5700 fax
	http://www.shipmate.com/



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MSDS-E-G100L-WIPES

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 1.1 MSDS Revision Date:

01/05/2011

DEFINITIONS 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	FLAWW	
2	Moderate Hazard		PHYSIC
3	Severe Hazard	PHTSIC/	
4			PERSONAL



PERSONAL PROTECTION RATINGS:

Α	Ś		G	Ø	and the second	~~	1
В	\$		н		and the	~	¥
С	\$		I	Ś	the second	¥	l
D	B	~ *	J		the second		¥
E	\$		κ		the second	X	Ĺ
F	~	· 📥 😽	x			ervisor or lling direc	S.O.P. for stions.
Sa	afety Glasses	Splash Goggles		e Shield & Protectior		Glov	es
	L Boots	Synthetic Apron				Dust Res)
		Dust & Vapor Half-		ull Face	А	Just Res	i
Full	Face Respirator	Mask Respirator	Re	spirator		or SC	BA

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

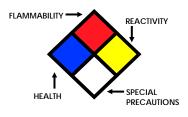
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air,
	by volume, that will explode or ignite in the presence
	of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air,
	by volume, that will explode or ignite in the presence
	of 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	DOT U.S. Department of Transportation				
TC	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	*			×	×
С	Е	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



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Prep	Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011									
1.	PRODUCT IDEN	ITIFICATION		CHEMICAL RESPONSE CARD: 0						
1.1	Product Name:	DeoxIT [®] G-Series, GN5MS-15, 5% Spray, 14 g		RESPONSE		(m)				
1.2	Chemical Name:	See ingredients listed in section 2		TEAM PPE:	$\mathbf{\mathbf{\forall}}$					
1.3	Synonyms:	DeoxIT® Gold, GN5MS-15, 5% Spray				$\overline{\mathbf{T}}$				
1.4	Trade Names:	DeoxIT® Gold, GN5MS-15, 5% Spray		WHMIS:	\oslash	\bigcirc				
1.5	Product Use:	Conditioner, enhancer for contacts & connect	ctors	HEALTH:				1		
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.		FLAMMABILITY:						
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876		PHYSICAL H	IAZARD	S:		0		
1.8	Business Phone:	+1 (800)-224-4123		PERSONAL	PROTEC	tion:		В		
1.9	Emergency Phone:	CHEMTREC +1-800-424-9300/+7	1-703-527-38	387						
1.10	Other Product Names:	NA								
2.1	Hazard Identification:	2. HAZARD IDEN								
	This product is Classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia). Colorless, volatile liquid with ethereal and faint sweetish odor. Non-flammable material. 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. At high temperatures (>250°C), decomposition products may include Hydrofluoric Acid (HF) and carbonyl halides.									
2.2	Routes of Entry:	Inhalation: YES Absorption: YES Ingestion: Y					Y	′ES		
2.3	Effects of Exposure: Effects of Exposure: 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.									
2.4	Symptoms of Overexposur	Central nervous system depressant. Irritating to th	e upper respirator	y tract.						
2.4	EYES: N	Mild irritation, redness, and watering.								
		Contact dermatitis, characterized by localized red or puffy dry skin and itching.								
		Jausea, vomiting, and diarrhea. Aouth, nose, and throat irritation, dizziness, nause	a, light-headedne	ss, drunkennes	s, and los	s of coor	dination	1.		
2.5	Acute Health Effects: EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash).									
		N: Gastrointestinal irritation and central nervous system depression.								
2.6	Chronic Health Effects: EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash).									
		Gastrointestinal irritation and central nervous system Central nervous system depressant. Irritating to the		y tract.						
2.7	Target Organs: Eyes, skin and respi	ratory system.								
	1									
		t Determined; NE = Not Established; NF; Not found; C = C ormation is included. It is located in appropriate sectior	-			ons of Teri	ms Used			



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Prep	Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011													
		3. CON	IPOSITION	& INGRE	DIENT	INFC	DRM/	ATIO	Ν					
								EXPOSURE LIMITS IN AIR (mg/m ³)						
						AC			NOHSC		OSHA OSHA			
						pp	om		ppm	1	ppm			OTHER
	CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	ES- TWA	ES- STEL	ES- PEAK	TLV	STEL	IDLH	
1.1.1.	3,3-PENTAFLUOROPROPANE	460-73-1	UNK	419-170-6	≤ 75	300	NE	NF	NF	NF	300	NE	NE	
	OCARBON PROPELLANT:				≤ 20									
15	SOBUTANE	75-28-5	TZ4300000	200-857-2	NA	NE	NE	NF	NF	NF	NE	NE	NE	
Р	ROPANE	74-98-6	TX2275000	200-827-9	NA	NE	NE	NF	NF	NF	1000	NE	NE	
ISOPR	OPYL ALCOHOL	67-63-0	NT8050000	200-661-7	≤ 3	400	NE	983	500	1230	400	NE	2000	
Deox	IT® Gold G100L	TRADE SECRET	NA	NA	≤ 5	NE	NE	NF	NF	NF	NE	NE	NE	
			4. FIF	RST AID M	EASU	RES								
4.1	First Aid:													
	5	es thoroughly							es, hol	ding e	yelid(s) ope	en to	ensure
		te flushing. If ir												
		contaminate										sists, s	seek p	prompt
		attention. Do			-		it has l	been p	roperly	y clear	ied.			
	-	enty of water.	-											
		victim to fresl attention. If b						supple	menta	loxyge	en and	l seel	k imm	ediate
4.2														
None reported by the manufacturer.								HEAL	IH					1
								FLAM	MA	BILITY	′			1
							PHYS	ICAL	. HAZ	ARD)S		0	
PROTECTIVE E					EQUIPMENT			В						
EYES SKIN					IN									
			5. FIRE	IGHTING	MEAS	SURES	S							
5.1	Flashpoint & Method:		-				-							
	ND. Level 1 aerosol.													
5.2	Autoignition Temperature:													
	412 °C (774 °F) – 1,1,1,3,3-F	entafluoropro	pane			1	r							
5.3	Flammability Limits:		Lower Explos	ive Limit (LEL):		NA	l	Jpper E	xplosiv	/e Limit	(UEL):		N	A
5.4	Fire & Explosion Hazards: Carbon dioxide, carbon monoxide, hydrocarbons.													
5.5	Extinguishing Methods:	onoxide, nyun	ocarbons.											
5.5	CO ₂ , Alcohol foam, Dry Ch	emical Water	Fog											
5.6	Firefighting Procedures:		109											
	Wear NIOSH/MSHA approv	ed self-contai	ined breathing	i apparatus ar	nd prote	ective o	lothing	ı. Use :	a wate	er 🖣	(1		C 0	
	spray to cool containers													
	exposed to direct flame c							5					>	
	weakening of container st	ructure. Keep	containers co	ol until well af	fter the	fire is o	ut to pr	reventi	rupture	e.				
	Prevent runoff from fire co	ontrol or dilution	on from enteri	ng sewers, dr	ains, dri	inking	water s	supply,	or an	У				
	natural waterway.													



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rep	pared to OSHA, ACC, ANS	SI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011							
		6. ACCIDENTAL RELEASE MEASURES							
5.1	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							
'.1	Work & Hygiene Practices: Wash hands thoroughly skin contact.	after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged							
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 may o	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).								
8.2	Respiratory Protection: None required, when used with adequate ventilation.								
8.3	Eye Protection: Wear safety glasses with	h side shields (ANSI Z87) under normal use conditions.							
8.4	Hand Protection: None required under no rubber or impervious pla	ormal conditions of use. However, may cause skin irritation in some sensitive individuals. In such cases, wear astic gloves.							
8.5	Body Protection: Use as necessary to pre	vent skin contact.							
		9. PHYSICAL & CHEMICAL PROPERTIES							
9.1	Density:	NA							
9.2	Boiling Point:	15 °C (59 °F) - 1,1,1,3,3-Pentafluoropropane							
.3	Melting Point:	NA							
.4	Evaporation Rate:	NA							
.5	Vapor Pressure:	50 +/- 5 psig @ 20 °C							
.6	Molecular Weight:	NA							
.7	Appearance & Color:	Light yellow/amber, aerosol							
.8	Odor Threshold:	Ethereal/hydrocarbon odor							
9.9	Solubility:	Not soluble in water							
9.10	рН	NA							
9.11	Viscosity:	ND							
9.12	Other Information: VOC Conter	nt 268 grams/liter							



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Prep	ared to OSHA, ACC, ANSI, NOHS	C, WHMIS & 2001/58 EC Standards	MSDS Revision: 3.1	MSDS Revision Date: 01/29/2011					
	10. STABILITY & REACTIVITY								
10.1	Stability:		_						
	Stable under normal conditions of use (see section 7).								
10.2	Hazardous Decomposition Products:								
10.2		ure to ultraviolet light or exceeding she	elf life Will not degrade to	unstable products Discard solution					
10.2	¥ ¥ !	die to dilaviolet light of exceeding she							
10.3	Hazardous Polymerization:								
10.4	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								
10.5	heavily trafficked areas. Incompatible Substances:								
10.5									
	Strong oxidizers.								
		11. TOXICOLOGICAL	INFORMATION						
11.1	Toxicity Data:								
	1,1,1,3,3-Pentafluoropropane:	Acute Dermal (rabbit) - LD ₅₀ > 2,000 m	ng/kg; Cardiac Sensitizatio	n (dogs) - No effects noted at 35,000					
	ppm, the threshold for induction	n of cardiac arrhythmias in the presence	ce of injected adrenalin wa	as 44,000 ppm. Acute Inhalation (rat):					
		ethality at 200,000 ppm. Evidence of tra							
	100,000 ppm. No lethality at 100	0,000 ppm. Evidence of transient under	ractivity during exposure.						
11.2	Acute Toxicity:								
	See section 2.5								
11.3	Chronic Toxicity:								
	See section 2.6								
11.4	Suspected Carcinogen:								
	NE								
11.5									
	This product is not reported to produce reproductive toxicity in humans.								
	Mutagenicity:	This product is not reported to produc		mans.					
Ī	Embryotoxicity:	This product is not reported to produc							
Ī	Teratogenicity:	This product is not reported to produc							
Ī	Reproductive Toxicity:	This product is not reported to produc							
11.6	Irritancy of Product:	· · · · · ·							
	See Section 2.3								
11.7	Biological Exposure Indices:								
	NE								
11.8	Physician Recommendations:								
	Treat symptomatically.								
	<u> </u>								
r		12. ECOLOGICAL IN							
12.1	Environmental Stability:								
		from soil. Components of this product w	will slowly decompose into	organic compounds.					
12.2									
	There is no specific data available for this product.								
12.3									
	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								
		13. DISPOSAL CONS	SIDERATIONS						
13.1	Waste Disposal:								
		federal, state or local regulations.							
13.2	Special Considerations:	¥							
	ŇA								



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MSDS-E-GN5MS-15

Prep	ared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards	MSDS Revision: 3.1	MSDS Revision Date: 01/29/2011					
The ba	14. TRANSPORTATION INFORMATION The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation.							
	onal description (ib Number, proper stipping hand, nazard class a division, packing group) is onal descriptive information may be required by 49 CFR, IATA/ICAO, IMDG, SCT, ADGR and th							
14.1	49 CFR (Ground): CONSUMER COMMODITY, ORM-D							
14.2	IATA (Air):		ORM-D					
			OWAS LAMEJAKTER, CHEADOL HAW					
14.3	UN1950, AEROSOLS, 2.2 (> 820 ml) IMDG (Ocean):		_					
1110	UN1950, AEROSOLS, 2.2, LTD QTY (≤ 1.0 L)							
14.4	TDGR (Canada):							
	MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QT"	y" or "quant ltée"						
	(≤ 1.0 L)							
14.5	ADR/RID (EU): UN1950, AEROSOLS, 2, 5 A, ADR, LTD QTY (X ≤ 1.0 L)		9					
14.6	SCI (Mexico):							
	UN1950, AEROSOLS, 2.2, CANTIDAD LIMITADA							
14.7	ADGR (Australia):							
	UN1950, AEROSOLS, 2.2, LTD QTY							
	15. REGULATORY IN	NFORMATION						
15.1	SARA Reporting Requirements:							
	NA							
15.2	SARA Threshold Planning Quantity:							
	NA							
15.3	TSCA Inventory Status:	ory or are otherwise evem	t from inventory status					
15.4	All chemical substances of this product are listed on the TSCA invent CERCLA Reportable Quantity (RQ):	ory of are otherwise exemp	or from inventory status.					
10.4	NA							
15.5	Other Federal Requirements:							
	Contains HFC-245fa, a greenhouse gas, a substance which may con	tribute 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		\sim					
	This product has been classified according to the hazard criteria of							
	(CPR) and the MSDS contains all of the information required by the C are listed on the DSL/NDSL. None of the components of this p							
	Substances List.	bounded are instead of the						
15.7	State Regulatory Information:							
	The primary component of this product is not listed on the for	ollowing state lists: Califor	nia 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 Hazardo	ous Substances List; and Florida Toxic					
15.0	Substances List.							
15.8	67/548/EEC (European Union) Requirements: The primary components of this product are not listed in Annex I of EU	II Directive 67/549/EEC						
		0 DIECUVE 07/340/EEC.						



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011 **16. OTHER INFORMATION** Other Information: 16.1 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/ 16.5 Prepared by: ShipMate, Inc. ShipMate[®] P.O. Box 787 Sisters, OR 97759-0787 310-370-3600 phone 310-370-5700 fax http://www.shipmate.com/



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MSDS-E-GN5MS-15

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011

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
--	---------	----------------------------------

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

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.						

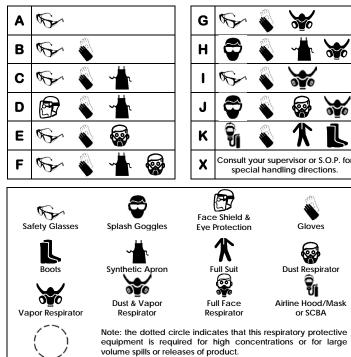
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:



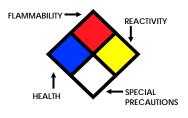
OTHER STANDARD ABBREVIATIONS:

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

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

		*	¥		*	×	×
С	E	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



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Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011							
1.	PRODUCT IDE	NTIFICATION		CHEMICAL	. RESPONSE (CARD:	03
1.1	Product Name:	DeoxIT [®] Shield S100L, S-SERIES		RESPONSE			
1.2	Chemical Name:	See ingredients listed in section 3		TEAM PPE:			
1.3	Synonyms:	DeoxIT [®] Shield S100L					
1.4	Trade Names:	DeoxIT [®] Shield S100L (see list below)	WHMIS:	\bigcirc			
1.5	Product Use:	Protect & lubricate electronic contacts & con	nectors	HEALTH:	1 1	1	0
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.	FLAMMABILITY: 0				
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876		PHYSICAL H	AZARDS:		0
1.8	Business Phone:	+1 (800)-224-4123		PERSONAL F	PROTECTION:		
1.9	Emergency Phone:	CHEMTREC +1 (703) 527-3887 /	′ +1 (800) 42	4-9300			
1.10	Other Product Names:DeoxIT® SHIELD S100L, 2 ml (Part No. S100L-2C, S100L-2CP) DeoxIT® SHIELD S100L, 7.4 ml (Part No. S100L-2DB) DeoxIT® SHIELD S100L, 12 ml (Part No. S100L-12C) DeoxIT® SHIELD S100L, 25 ml (Part No. S100L-25C) DeoxIT® SHIELD PEN, 7 ml (Part No. D100P) DeoxIT® SHIELD WIPES, (Part Nos. D50W, K-D1W-25, K-D1W-50, D1W) DeoxIT® SHIELD S100L, 59 ml (Part No. S100L-2) DeoxIT® SHIELD S100L, 236 ml (Part No. S100L-8) DeoxIT® SHIELD S100L, 472 ml (Part No. S100L-16) DeoxIT® SHIELD S100L, 30 L (Part No. S100L-32) DeoxIT® SHIELD S100L, 30 L (Part No. S100L-8G)						
		2. HAZARD IDEN	ITIFICATION				
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 (2004)] and ADG Code (Australia). DeoxIT [®] Shield S100L is non-volatile, non-hazardous and non-flammable.						
2.2	Routes of Entry: Inhalation: YES Absorption: YES Ingestion: YES					/ES	
2.3	Effects of Exposure: 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. INHALATION: Unlikely route of exposure. Should vapor concentrations exceed recommended exposure levels, they are temporary irritating to the eyes, nose, throat, and the respiratory tract; may cause temporary headaches and dizziness.						
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: None reported when used as directed. Mild to moderate temporary irritation. SKIN: Unlikely when used as directed. Repeated exposure at site of contact may cause temporary contact dermatitis (localized redness or rash). INGESTION: Not probable. Small amount may cause temporary gastrointestinal irritation and central nervous system depression. INHALATION: Unlikely route of exposure. Should vapor concentrations exceed recommended exposure levels, they are temporary irritating to the eyes, nose, throat, and the respiratory tract; may cause headaches and dizziness.						
2.6							
2.7	None reported by the manufacturer. Target Organs:						
	Eyes and skin.						
NA =	NA = Not Available; ND = Not Determined; NE = Not Established; NF = Not found; C = Ceiling Limit; See Section 16 for Additional Definitions of Terms Used						



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Prep	Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011											
3. COMPOSITION & INGREDIENT INFORMATION												
	EXPOSURE LIMITS IN AIR (mg/m³)											
						AC	GIH		OSHA	(ing/ine)	01	THER
						TLV	STEL	PEL	STEL	IDLH	0	
	CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	ppm	ppm	ppm	ppm	ppm		
Deox	T [®] Shield S100L	Trade Secret	NA	NA	100	NE	NE	NE	NE	NE		
			4 E1									
			4. FI	RST AID M	EASU	RES						
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. INHALATION: Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate											
4.2	Medical Conditions Aggravated b	al attention. If I	oreating stop	s, penonn an				1 71 1				0
	None reported by the ma	nufacturer.					HEA					0
							FLA	MMAB	ILIIY			0
							PHY	SICAL	HAZAF	RDS		0
	PROTECTIVE EQUIPMENT					T .	A					
							EYES					
							·		·			
			5. FIRE	FIGHTING	MEAS	SURES						
5.1	Flashpoint & Method:											
5.2	> 250 °C (482 °F) Autoignition Temperature:											
5.Z	NA											
5.3	Flammability Limits:		Lower Explo	sive Limit (LEL)	:	ND	Uppe	r Explosive	e Limit (UE	EL):	ND)
5.4	Fire & Explosion Hazards:											
	Carbon dioxide, carbon r	nonoxide, hyd	rocarbons.						_			
5.5	Extinguishing Methods: CO ₂ , Alcohol foam, Dry C	hemical. Wate	er Foa									
5.6	CO ₂ , Alcohol foam, Dry Chemical, Water Fog 6 Firefighting Procedures:											
	Wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing. Use a water spray to cool containers involved in fire. Do not use direct water stream. Container storage areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. Keep containers cool until well after the fire is out to prevent rupture. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway.											
6.1	6. ACCIDENTAL RELEASE MEASURES											
0.1	 Spills: 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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Prep	ared to OSHA, ACC, ANSI, WHM	IS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011							
	7. HANDLING & STORAGE INFORMATION								
7.1	Work & Hygiene Practices: Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact.								
7.2	Storage & Handling: 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.								
7.3	Special Precautions: Empty containers may contain								
	8. EXPOSURE CONTROLS & PERSONAL PROTECTION								
8.1		n (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontamination nk, 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 s	hields (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 sk	in contact.							
		9. PHYSICAL & CHEMICAL 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 blue							
9.8	Odor Threshold:								
9.9	Solubility:	Ethereal/hydrocarbon odor Not soluble in water							
9.10	Ph								
9.10	Viscosity:	NA							
9.12	VOC (g/L):	5.4 – 7.5 cSt @ 104 °F							
9.12		None							
7.13	0.13 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.							
10.3	Hazardous Polymerization:	Will not occur.							
10.4	Conditions to Avoid:								
10.5	Incompatible Substances:	Strong oxidizers.							



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	Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards	MSDS Revision: 2.1
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MSDS Revision Date: 02/14/2011

	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.				
	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				
11.8	Physician Recommendations:	Treat symptomatically.				
		12. ECOLOGICAL INFORMATION				
12.1	Environmental Stability:	This product will slowly volatile from soil. Components of this product organic compounds.	will slowly decompose into			
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 fa life.	atal to overexposed aquatic			
-		13. DISPOSAL CONSIDERATIONS				
13.1	Waste Disposal: Dispose of in accordance with federal, state or local regulations.					
13.2	Special Considerations: NA					
		14. TRANSPORTATION INFORMATION				
		proper shipping name, hazard class & division, packing group) is shown for ea nay be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.	ach mode of transportation.			
14.1	49 CFR (GND): NOT REGULATED					
14.2	IATA (AIR): NOT REGULATED					
14.3	IMDG (OCN): NOT REGULATED					
14.4	TDGR (Canadian GND):					
14.5						
14.5	ADR/RID (EU): NOT REGULATED					
14.6	SCT (MEXICO):					
	NO REGULADO					
14.7	ADGR (AUS):					
	NOT REGULATED					



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Prep	ared to OSHA, ACC, ANSI, WHMIS, NOHSC	& 2001/58 EC Standards	MSDS Revision: 2.1	MSDS Revision Date: 02/14/2011	
		15. Regulatory I	NFORMATION		
15.1	SARA Reporting Requirements:				
	NA				
15.2	SARA Threshold Planning Quantity: NA				
15.3	TSCA Inventory Status:				
15.5	All chemical substances of this product a	are listed on the TSCA inver	ntory or are otherwise exemi	ot from inventory status.	
15.4	CERCLA Reportable Quantity (RQ):				
	NA				
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				
15.7	Substances List. State Regulatory Information:				
10.7	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 Haz Substances List.	ardous substances list inf	605.09; Minnesota Hazard	ous substances list; and fiorida loxic	
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.				
1/1	16. 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/	CAIGA INC.			
16.5	Prepared by: ShipMate, Inc. P.O. Box 787 Sisters, OR. 97759-0787 +1 (310) 370-3600 phone +1 (310) 370-5700 fax http://www.shipmate.com/	ShipMate Dangerous Goods Training & Consulting			



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MSDS-E-S100L

Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 02/14/2011

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CAS No. Chemical Abstract Service Number

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OSHA	U.S. Occupational Safety and Health Administration	
PEL	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.				

HEALTH

FLAMMABILITY

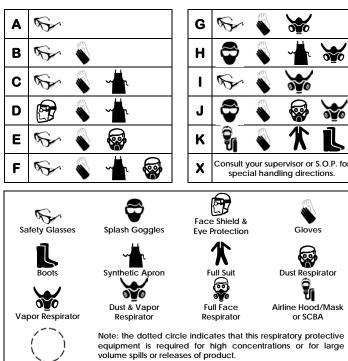
REACTIVITY PERSONAL PROTECTION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

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1	Slight Hazard			
2	Moderate Hazard			
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OTHER STANDARD ABBREVIATIONS:

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ND	Not Determined
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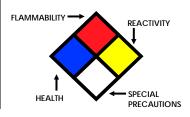
FLAMMABILITY LIMITS IN AIR:

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

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
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HAZARD RATINGS:

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ALK	Alkaline
COR	Corrosive
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TOXICOLOGICAL INFORMATION:

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LC 50 Lethal concentration (gases) which kills 50% of exposed animal			
ppm Concentration expressed in parts of material million parts			
TD _{Io}	Lowest dose to cause a symptom		
TCLo	Lowest concentration to cause a symptom		
TD _{lo} , LD _{lo} , & LD _o or	Lowest dose (or concentration) to cause lethal or		
TC, TCo, LClo, & LCo	toxic effects		
IARC	International Agency for Research on Cancer		
NTP	National Toxicology Program		
RTECS Registry of Toxic Effects of Chemical Substances			
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REGULATORY INFORMATION:

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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:

V		E	¥		®X	×	×
С	Е	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



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MSDS-E-SN5MS-15

Prep	Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011						
1.	PRODUCT IDEN	NTIFICATION	CHEMICAL	RESPONSE CARD:	01		
1.1	Product Name:	DeoxIT [®] Shield S-Series, SN5MS-15, 5% Spray, 14 g	RESPONSE				
1.2	Chemical Name:	See ingredients listed in section 2	TEAM PPE:				
1.3	Synonyms:	DeoxIT [®] Shield, SN5MS-15, 5% Spray					
1.4	Trade Names:	DeoxIT [®] Shield, SN5MS-15, 5% Spray	WHMIS:	$\bigcirc \bigcirc$			
1.5	Product Use:	Lubricates and protects electrical contacts & connectors	HEALTH:		1		
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.	FLAMMABILI	TY:	1		
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876	PHYSICAL H	AZARDS:	0		
1.8	Business Phone:	+1 (800)-224-4123	PERSONAL P	ROTECTION:	В		
1.9	Emergency Phone:	CHEMTREC +1-800-424-9300/+1-703-527-3	387				
1.10	Other Product Names:	NA					
2.1	Hazard Identification:	2. HAZARD IDENTIFICATION					
	This product is Classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia). Colorless, volatile liquid with ethereal and faint sweetish odor. Non-flammable material. 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. At high temperatures (>250°C), decomposition products may include Hydrofluoric Acid (HF) and carbonyl halides.						
2.2	Routes of Entry:	Inhalation: YES Absorption:	YES	Ingestion:	YES		
2.3	Effects of Exposure: 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.						
2.4							
		Nouth, nose, and throat irritation, dizziness, nausea, light-headedne	ess, drunkenness,	and loss of coordination	า.		
2.5	Acute Health Effects: EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash).						
2.6	Chronic Health Effects: EYES: Mild to moderate irritation. SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash).						
		Gastrointestinal irritation and central nervous system depression. Central nervous system depressant. Irritating to the upper respirato	ry tract.				
2.7	Target Organs: Eyes, skin and resp	iratory system.					
	1						
NA =	Not Available; ND = No	t Determined; NE = Not Established; NF; Not found; C = Ceiling Limit; See Sec	tion 16 for Addition	al Definitions of Terms Used			
NOTE	: all WHMIS required inf	ormation is included. It is located in appropriate sections based on the ANS	Z400.1-2004 forma	t.			



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Prep	Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011													
	3. COMPOSITION & INGREDIENT INFORMATION													
						10		EXPOSL						
						AC pp	GIH		VOHSC ppm	,	(OSHA ppm		OTHER
								ES-	ES-	ES-		P P		OTTER
	CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	TWA	STEL	PEAK	TLV	STEL	IDLH	
1,1,1,	3,3-PENTAFLUOROPROPANE	460-73-1	UNK	419-170-6	≤ 75	300	NE	NF	NF	NF	300	NE	NE	
HYDR	OCARBON PROPELLANT:	•			≤ 20									
IS	OBUTANE	75-28-5	TZ4300000	200-857-2	NA	NE	NE	NF	NF	NF	NE	NE	NE	
P	ROPANE	74-98-6	TX2275000	200-827-9	NA	NE	NE	NF	NF	NF	1000	NE	NE	
ISOPR	OPYL ALCOHOL	67-63-0	NT8050000	200-661-7	≤ 3	400	NE	983	500	1230	400	NE	2000	
Deox	T [®] Shield S100L	TRADE SECRET	NA	NA	≤5	NE	NE	NF	NF	NF	NE	NE	NE	
		•												
			4. FIF	rst aid m	EASU	RES								
4.1	First Aid:													
	EYES: Flush ey	es thoroughly	with copious	amounts of v	water fo	or at le	ast 15	minute	s, hol	ding e	yelid(s) ope	en to	ensure
		0		s, seek immed										
				d wash affecte								sists, s	seek p	prompt
				taminated clo sists, contact a	-		it nas	been p	ropen	y clear	iea.			
				If breathing i			inister	sunnlei	menta		en and	ا دوما	k imm	ediate
				s, perform artifi				Supple	nenta	i oxyg		1 3001	×	culate
4.2	4.2 Medical Conditions Aggravated by Exposure: HEALTH 1													
	None reported by the manufacturer.													
							⊢	FLAM	WA	SILIIY				1
								PHYS	ICAL	. HAZ	ZARD)S		0
								PROT	ECTI	VE E	QUIP	ME	NT	В
								EYES	SK	IN				
			5. FIRE	IGHTING	MEA	SURES	S							
5.1	Flashpoint & Method:		-				_							
	ND. Level 1 aerosol.													
5.2	Autoignition Temperature:													
5.3	412 °C (774 °F) – 1,1,1,3,3-P Flammability Limits:	entafluoropro				N1.0				in Lineti				•
5.4														
	Carbon dioxide, carbon monoxide, hydrocarbons.													
5.5	Extinguishing Methods:													
	CO ₂ , Alcohol foam, Dry Ch	emical, Water	Fog							_				
5.6	Firefighting Procedures:	ad colf	nod breath's		ad	ative -	Joth'r -				[1			
	Wear NIOSH/MSHA approv spray to cool containers i										``			
	exposed to direct flame co												<u> </u>	
	weakening of container str	ucture. Keep	containers co	ool until well af	ter the	fire is o	ut to p	reventi	upture	e.				
	Prevent runoff from fire co	ntrol or dilutio	on from enteri	ng sewers, dr	ains, dr	inking	water	supply,	or an	У				
	natural waterway.													



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ер	ared to OSHA, ACC, ANSI, N	DHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011						
	Spills:	6. ACCIDENTAL RELEASE MEASURES						
1	Secure spill area and deny protective equipment. Are commercial absorbent ma	entry to all unprotected individuals. Individuals involved in the cleanup should wear appropriate persona a may become slippery. Absorb product onto porous material, such as sand, clay, diatomaceous earth o terial. Place into leak-proof, U.S. DOT-approved containers. If necessary, cover all drains and dike we ant runoff into sewers, drains, and all waterways. Contact appropriate local or provincial authorities for requirements.						
		7. HANDLING & STORAGE INFORMATION						
	Work & Hygiene Practices:							
	Wash hands thoroughly after skin contact.	er using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonge						
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.							
3	Special Precautions: Empty containers may cont	ain product residues.						
	Empty containers may cont							
	8	3. EXPOSURE CONTROLS & PERSONAL PROTECTION						
1	Ventilation & Engineering Controls:							
		tion (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontaminatio ., sink, safety shower, eye-wash station).						
.2	Respiratory Protection: None required, when used with adequate ventilation.							
.3	Eye Protection: Wear safety glasses with sid	e shields (ANSI Z87) under normal use conditions.						
.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.							
.5	Body Protection:							
	Use as necessary to preven	t skin contact.						
		9. PHYSICAL & CHEMICAL PROPERTIES						
1	Density:	NA						
2	Boiling Point:	15 °C (59 °F) - 1,1,1,3,3-Pentafluoropropane						
3	Melting Point:	NA						
4	Evaporation Rate:	NA						
5	Vapor Pressure:	50 +/- 5 psig @ 20 °C						
5	Molecular Weight:	NA						
7	Appearance & Color:	Light blue, aerosol						
8	Odor Threshold:	Ethereal/hydrocarbon odor						
9	Solubility:	Not soluble in water						
.10	рН	NA						
.11	Viscosity:	ND						
9.12	Other Information: VOC Content	268 grams/liter						



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Prep	ared to OSHA, ACC, ANSI, NOHS	C, WHMIS & 2001/58 EC Standards	MSDS Revision: 3.1	MSDS Revision Date: 01/29/2011					
	10. STABILITY & REACTIVITY								
10.1	Stability:								
	Stable under normal conditions of use (see section 7).								
10.2	Hazardous Decomposition Products:								
	Change in color signifies expos	ure 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 flam heavily trafficked areas.	es, sparks, high heat (>100 °F) or o	ther heat sources, and prox	imity to incompatible substances and					
10.5	Incompatible Substances:								
	Strong oxidizers.								
		11. TOXICOLOGICA	L INFORMATION						
11.1	Toxicity Data:								
	ppm, the threshold for induction 4-hr. $LC_{50} > 200,000$ ppm. No le	n of cardiac arrhythmias in the prese	ence of injected adrenalin w f transient anesthetic effect.	on (dogs) – No effects noted at 35,000 as 44,000 ppm. Acute Inhalation (rat): Acute Inhalation (mouse): 4-hr. LC50 >					
11.2	Acute Toxicity:	<u> </u>							
	See section 2.5								
11.3	Chronic Toxicity:								
	See section 2.6								
11.4	Suspected Carcinogen:								
	NE								
11.5	Reproductive Toxicity:								
	This product is not reported to p	roduce reproductive toxicity in hum							
	Mutagenicity:	This product is not reported to prod							
	Embryotoxicity:	This product is not reported to prod							
·	Teratogenicity:	This product is not reported to prod							
11 /	Reproductive Toxicity:	This product is not reported to prod	iuce reproductive effects in r	numans.					
11.6	Irritancy of Product: See Section 2.3								
11.7	Biological Exposure Indices:								
11.7	NE								
11.8	Physician Recommendations:								
	Treat symptomatically.								
		12. ECOLOGICAL	INFORMATION						
12.1	Environmental Stability:								
	This product will slowly volatile f	rom soil. Components of this produce	ct will slowly decompose into	o organic compounds.					
12.2									
	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 								
		13. DISPOSAL COI	NSIDERATIONS						
13.1	Waste Disposal: Dispose of in accordance with f	ederal, state or local regulations.							
13.2	Special Considerations: NA								



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Prep	ared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011						
	14. TRANSPORTATION INFORMATION						
The ba	sic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation.						
	onal descriptive information may be required by 49 CFR, IATA/ICAO, IMDG, SCT, ADGR and the CTDGR.						
14.1	49 CFR (Ground):						
	CONSUMER COMMODITY, ORM-D						
14.2	IATA (Air): ORM-D						
	ID8000, CONSUMER COMMODITY, 9 (≤ 820 ml)						
	UN1950, AEROSOLS, 2.2 (> 820 ml)						
14.3	IMDG (Ocean):						
	UN1950, AEROSOLS, 2.2, LTD QTY (≤ 1.0 L)						
14.4	TDGR (Canada):						
	MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE"						
	(≤ 1.0 L)						
14.5	ADR/RID (EU):						
	UN1950, AEROSOLS, 2, 5 A, ADR, LTD QTY (X ≤ 1.0 L)						
14.6	SCT (Mexico):						
	UN1950, AEROSOLS, 2.2, CANTIDAD LIMITADA						
14.7	ADGR (Australia):						
	UN1950, AEROSOLS, 2.2, LTD QTY						
	15. REGULATORY INFORMATION						
15.1	SARA Reporting Requirements:						
	NA						
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):						
	NA						
15.5	Other Federal Requirements:						
15.5	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 $(//)(T)$						
	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:						
10.7	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. A, Wisconsin hazardous substances List Nic 005.07, Minnesota hazardous substances List, and honda roke						
15.8	67/548/EEC (European Union) Requirements:						
10.0	The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC.						



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 3.1 MSDS Revision Date: 01/29/2011 **16. OTHER INFORMATION** Other Information: 16.1 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/ 16.5 Prepared by: ShipMate, Inc. ShipMate[®] P.O. Box 787 Sisters, OR 97759-0787 310-370-3600 phone 310-370-5700 fax http://www.shipmate.com/



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DEFINITION OF TERMS

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

GENERAL INFORMATION:

CAS No. Chemical Abstract Service Num	oer
---------------------------------------	-----

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

EXPOSURE	LIMITS IN	AIR:
LVI ODOVE	LINNING IN	AIIX.

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.							

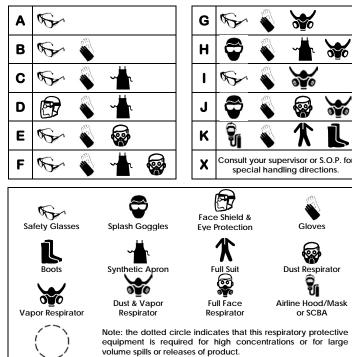
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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



PERSONAL PROTECTION RATINGS:



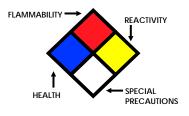
OTHER STANDARD ABBREVIATIONS:

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

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		
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	Co toxic effects			
IARC International Agency for Research on Cancer				
NTP National Toxicology Program				
RTECS	Registry of Toxic Effects of Chemical Substances			
BCF	Bioconcentration Factor			
TLm	Median threshold limit			
log Kow or log Koc Coefficient of Oil/Water Distribution				

REGULATORY INFORMATION:

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

EC INFORMATION:

		*	¥		*	×	×
С	E	F	Ν	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful