

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

# **MATERIAL SAFETY DATA SHEET**

MSDS Revision: 2.1

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MSDS Revision Date: 01/29/2011

MSDS-E-D5S-A

• •	PRODUCT IDE	NTIFICATION	CHEMICAL	RESPONSE CARD:	02
1.1	Product Name:	DeoxIT® D-Series, D5S-6, 5% Spray, 142 g	RESPONSE	<u>@</u> _	
1.2	Chemical Name:	See ingredients listed in section 3	TEAM PPE:		
1.3	Synonyms:	DeoxIT®, D5S-6, 5% Spray			
.4	Trade Names:	DeoxIT®, D5S-6, 5% Spray	WHMIS:		
.5	Product Use:	Clean, deoxidize & improve electrical contacts & connect	ors <b>HEALTH</b> :		1
.6	Manufacturer's Name:	CAIG Laboratories, Inc. FLAMMABILITY:		2	
.7	Manufacturer's Address:			0	
.8	Business Phone: +1 (800)-224-4123 PERSONAL PROTECTION:		ROTECTION:	В	
.9	Emergency Phone:	CHEMTREC 1-800-424-9300/1-703-527-3			
.10	Other Product Names:	DeoxIT®, D5MS-15, 5% Spray, 14 g	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		O HAZARD IDENTIFICATIO	<b>N</b> I		
1	Hazard Identification:	2. HAZARD IDENTIFICATIO	JN		
2	according to the c	n in confined spaces. This product is Classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOO lassification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia).			
.2	Routes of Entry:	Inhalation: YES Absorp	tion: YES	Ingestion:	/ES
EYES: Mild to moderate irritation.  SKIN: Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact or redness or rash).  INGESTION: Gastrointestinal irritation and central nervous system depression.  INHALATION: Central nervous system depressant. Irritating to the upper respiratory tract.			e contact dermatitis (lo	caliz	
		•			
.4	INHALATION:  Symptoms of Overexpos EYES: SKIN: INGESTION:	Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper resp	riratory tract.	and loss of coordination	1.
	INHALATION:  Symptoms of Overexpos EYES: SKIN: INGESTION: INHALATION:  Acute Health Effects: INGESTION:	Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper respore:  Mild irritation, redness, and watering.  Contact dermatitis, characterized by localized red or puffy dry Nausea, vomiting, and diarrhea.  Mouth, nose, and throat irritation, dizziness, nausea, light-head  Gastrointestinal irritation and central nervous system depressio	riratory tract.  r skin and itching.  dedness, drunkenness,	and loss of coordination	1.
	INHALATION:  Symptoms of Overexpos EYES: SKIN: INGESTION: INHALATION:  Acute Health Effects: INGESTION: EYES: SKIN:	Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper respore:  Mild irritation, redness, and watering. Contact dermatitis, characterized by localized red or puffy dry Nausea, vomiting, and diarrhea.  Mouth, nose, and throat irritation, dizziness, nausea, light-head Gastrointestinal irritation and central nervous system depressio Mild to moderate irritation.  Irritant and potential skin sensitizer. Prolonged or repeated	ristory tract.  skin and itching. edness, drunkenness,		
	INHALATION:  Symptoms of Overexpos EYES: SKIN: INGESTION: INHALATION:  Acute Health Effects: INGESTION: EYES: SKIN: INGESTION:	Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper respore:  Mild irritation, redness, and watering.  Contact dermatitis, characterized by localized red or puffy dry Nausea, vomiting, and diarrhea.  Mouth, nose, and throat irritation, dizziness, nausea, light-head  Gastrointestinal irritation and central nervous system depressio Mild to moderate irritation.	riskin and itching.  dedness, drunkenness,  n.  d contact may cause  n.		
5	INHALATION:  Symptoms of Overexpos EYES: SKIN: INGESTION: INHALATION:  Acute Health Effects: INGESTION: EYES: SKIN: INGESTION: INHALATION: Chronic Health Effects: EYES: SKIN:	Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper respore:  Mild irritation, redness, and watering. Contact dermatitis, characterized by localized red or puffy dry Nausea, vomiting, and diarrhea.  Mouth, nose, and throat irritation, dizziness, nausea, light-head  Gastrointestinal irritation and central nervous system depression Mild to moderate irritation.  Irritant and potential skin sensitizer. Prolonged or repeated redness or rash).  Gastrointestinal irritation and central nervous system depression Central nervous system depression.  Irritation to moderate irritation.  Irritation and potential skin sensitizer. Prolonged or repeated the system depression.  Irritation and potential skin sensitizer. Prolonged or repeated.	r skin and itching.  dedness, drunkenness,  n.  d contact may cause  n.  iratory tract.	e contact dermatitis (lo	caliz
2.4	INHALATION:  Symptoms of Overexpos EYES: SKIN: INGESTION: INHALATION:  Acute Health Effects: INGESTION: EYES: SKIN: INGESTION: INHALATION: Chronic Health Effects: EYES: SKIN: INGESTION: INHALATION: Chronic Health Effects: EYES: SKIN:	Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper respore:  Mild irritation, redness, and watering. Contact dermatitis, characterized by localized red or puffy dry Nausea, vomiting, and diarrhea.  Mouth, nose, and throat irritation, dizziness, nausea, light-head  Gastrointestinal irritation and central nervous system depressio Mild to moderate irritation.  Irritant and potential skin sensitizer. Prolonged or repeated redness or rash).  Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper resp  Mild to moderate irritation.	r skin and itching.  dedness, drunkenness,  n. d contact may cause in. dicontact may cause in. dicontact may cause	e contact dermatitis (lo	caliz
5	INHALATION:  Symptoms of Overexpos EYES: SKIN: INGESTION: INHALATION:  Acute Health Effects: INGESTION: EYES: SKIN: INGESTION: INHALATION: Chronic Health Effects: EYES: SKIN: INGESTION: INHALATION: Chronic Health Effects: EYES: SKIN:	Gastrointestinal irritation and central nervous system depressio Central nervous system depressant. Irritating to the upper respore:  Mild irritation, redness, and watering. Contact dermatitis, characterized by localized red or puffy dry Nausea, vomiting, and diarrhea.  Mouth, nose, and throat irritation, dizziness, nausea, light-head  Gastrointestinal irritation and central nervous system depression Mild to moderate irritation.  Irritant and potential skin sensitizer. Prolonged or repeated redness or rash).  Gastrointestinal irritation and central nervous system depression Central nervous system depression.  Irritation and central nervous system depression.  Mild to moderate irritation.  Irritant and potential skin sensitizer. Prolonged or repeated redness or rash).  Gastrointestinal irritation and central nervous system depression redness or rash).	r skin and itching.  dedness, drunkenness,  n. d contact may cause in. dicontact may cause in. dicontact may cause	e contact dermatitis (lo	caliz

NOTE: All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-2004 format.



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision Date: 01/29/2011 MSDS Revision: 2.1 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH **NOHSC OSHA** ppm ppm ppm OTHER ES-ES-ES-RTECS No. **EINECS No.** % TLV STEL TLV CAS No. **TWA STEL PEAK** STEL IDLH CHEMICAL NAME(S) 64742-88-7 265-191-7 PETROLEUM NAPHTHA XS5250000 ≤ 75 100 NE 100 NE NE 100 NE NE **DIFLUOROETHANE** 75-37-6 KI4100000 200-866-1 1000 ≤ 20 1000 NA NA NA 1000 NA NA **SKIN** ≤ 5 DeoxIT® D100L TRADE SECRET NA 4. FIRST AID MEASURES 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. Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt SKIN: medical attention. Do not wear contaminated clothing until after it has been properly cleaned. INGESTION: Drink plenty of water. If irritation persists, contact a physician. Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate INHALATION: medical attention. If breathing stops, perform artificial respiration. 4.2 Medical Conditions Aggravated by Exposure: 1 HEALTH None reported by the manufacturer. 2 **FLAMMABILITY** PHYSICAL HAZARDS 0 PROTECTIVE EQUIPMENT SKIN **EYES** 5. FIREFIGHTING MEASURES 5.1 Flashpoint & Method: 48.8 °C - 54.4 °C (120 °F – 130 °F). Level 2 aerosol. 5.2 Autoignition Temperature: NA 5.3 Flammability Limits: Lower Explosive Limit (LEL): NA Upper Explosive Limit (UEL): NΑ 5 4 Fire & Explosion Hazards: Carbon dioxide, carbon monoxide, hydrocarbons. 5.5 CO<sub>2</sub>, Alcohol foam, Dry Chemical, Water Fog 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.



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 01/29/2011 6. ACCIDENTAL RELEASE MEASURES 6.1 Secure spill area and deny entry to all unprotected individuals. Individuals involved in the cleanup should wear appropriate personal protective equipment. Area may become slippery. Absorb product onto porous material, such as sand, clay, diatomaceous earth or commercial absorbent material. Place into leak-proof, U.S. DOT-approved containers. If necessary, cover all drains and dike well ahead of the spill to prevent runoff into sewers, drains, and all waterways. Contact appropriate local or provincial authorities for assistance and/or reporting requirements. 7. HANDLING & STORAGE INFORMATION 7 1 Work & Hygiene Practices: Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact. Storage & Handling: 7.2 Store at temperatures between 59 °F and 95 °F (15 °C and 35 °C) in a dry, well-ventilated location. Keep away from heat, sparks, open flame, and other sources of ignition. Normal shelf-life: 2-3 years. 7.3 Special Precautions: Empty containers can contain flammable vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 8.1 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 Eve Protection: Wear safety glasses with side shields (ANSI Z87) under normal use conditions. 8.4 None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. In such cases, wear rubber or impervious plastic gloves. Body Protection: Use as necessary to prevent skin contact. 9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Density: 0.75 9.2 Boiling Point: 171.1 °C - 204 °C @ 760 mmHg 9.3 Melting Point 9.4 Evaporation Rate: 0.11 (n-Butyl Acetate = 1.0) 9.5 Vapor Pressure: 35 psig @ 20 °C, 50 psig @ 50 °C 9.6 Molecular Weight: NA 9.7 Appearance & Color: Light red, aerosol Odor Threshold: Ethereal/hydrocarbon odor 99 Solubility: Not soluble in water 9.10 ND 9.11 Viscosity: 10.0 cps 9 12 VOC (grams/liters) 588 g/l 9.13 Other Information: Vapor Density = 4.9 (Air = 1.0)



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		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.					
		11. TOXICOLOGICAL INFORMATION			
11.1	Toxicity Data:				
11.2	Acute Toxicity:	See section 3.5			
11.3	Chronic Toxicity:	See section 3.6			
11.4	Suspected Carcinogen:	NE			
1.5	Reproductive Toxicity:	This product is not reported to produce reproductive toxicity in humans.			
	Mutagenicity:	This product is not reported to produce 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:				
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.			
12.4	Environmental Impact (Percent by Weight):	CFC: 0.0% HCFC: 0.0% CL.SOLV.: 0.0%			
	weigiii).	VOC: 75.0% HFC: 20.0% ODP: 0.0%			
		13. DISPOSAL CONSIDERATIONS			
13.1	Waste Disposal:				
		federal, state or local regulations.			
13.2	Special Considerations:				



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### 14. TRANSPORTATION INFORMATION

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

14.1	49 CFR (GND):
	CONSUMER COMMODITY, ORM-D
14.2	IATA (AIR):
	CONSUMER COMMODITY, 9, ID8000 (≤ 500 ml)
	UN1950, AEROSOLS, 2.1 (> 500 ml)
14.3	IMDG (OCN):
	UN1950, AEROSOLS, 2.1, LTD QTY (≤ 1.0 L)
14.4	TDGR (Canadian GND):
	MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L)
14.5	ADR/RID (EU):
	1950 AEROSOLS, 2.1, ADR, LTD QTY
14.6	SCT (Mexico):
	UN1950, AEROSOLS, 2.1, CANTIDAD LIMITADA
14.7	ADGR (Australia):
	UN1950, AEROSOLS, 2.1, LTD QTY



### 15. REGULATORY INFORMATION

15.1 SARA Reporting Requirements:

NA

15.2 SARA Threshold Planning Quantity:

NA

15.4

15.3 TSCA Inventory Status:

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

CERCLA Reportable Quantity (RQ):

NA

Other Federal Requirements: 15.5

NA

Other Canadian Regulations 15.6

> This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List.







State Regulatory Information:

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

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

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

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





+1 (310) 370-3600 phone

+1 (310) 370-5700 fax http://www.shipmate.com

## MATERIAL SAFETY DATA SHEET

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MSDS Revision: 2.1 MSDS Revision Date: 01/29/2011 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards 16. OTHER INFORMATION 16.1 Other Information: NA Terms & Definitions: See last page of this MSDS. This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & CAIG Laboratories, Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition. Prepared for: CAIG Laboratories, Inc. 12200 Thatcher Court Poway, CA 92064-6876 +1 (800) CAIG-123 (244-4123) phone +1 (858) 486-8398 fax http://www.caig.com/ Prepared by: ShipMate, Inc. P.O. Box 787 780 Buckaroo Trail Suite D Sisters, OR 97759

Training & Consulting



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### **DEFINITION OF TERMS**

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

### **GENERAL INFORMATION:**

CAS No.	Chemical Abstract Service Number

### **EXPOSURE LIMITS IN AIR:**

ACGIH American Conference on Governmental Industrial 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.		

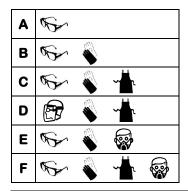
### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

### **HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**

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



### PERSONAL PROTECTION RATINGS:







### OTHER STANDARD ABBREVIATIONS:

NIA	NI - L. A II - I - I
NA	Not Available
NR	No Results
NE	Not Established
NF	Not Found
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

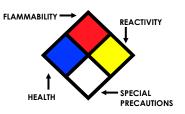
### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

### 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
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 <sub>Io</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>io</sub> , LD <sub>io</sub> , & LD <sub>o</sub> or	Lowest dose (or concentration) to cause lethal or
TC, TCo, LCio, & LCo	toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TLm	Median threshold limit
log K <sub>ow</sub> or log K <sub>oc</sub>	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	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.		<b>1</b>	*			×	X
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful



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١.	PRODUCT IDEI	NTIFICATION				CHEMICA	L RESPONSE CARD	): 02
.1	Product Name:	DeoxIT® Gold G	-Series, G5S-6, 5	5% Spray,	142 g	RESPONSE		
.2	Chemical Name:	See ingredients listed in section 3			TEAM PPE:			
.3	Synonyms:	DeoxIT® Gold, G5S-	6, 5% Spray			14//14416		\
.4	Trade Names:	DeoxIT® Gold, G5S-	6, 5% Spray			WHMIS:		/
.5	Product Use:	Conditioner, enhar	ncer for contacts & c	connectors		HEALTH:		1
.6	Manufacturer's Name:	CAIG Laboratories	Inc.			FLAMMABILITY:		2
.7	Manufacturer's Address:	12200 Thatcher Co	urt, Poway, CA 9206	64-6876		PHYSICAL H	HAZARDS:	0
.8	Business Phone:	+1 (800)-224-4123				PERSONAL	PROTECTION:	В
.9	Emergency Phone:	CHEMTREC 1	-800-424-930	0/1-703	-527-3887	<del></del> 7		
.10	Other Product Names:		IS-15, 5% Spray, 14 g	•	<u> </u>	•		
			2. HAZARD	<b>IDENTIF</b>	CATION			
							CE and as DANGEROUS	s GOC
	•	lassification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia).						
	Routes of Entry:  Effects of Exposure:  FYES:	Mild to moderate irrita	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
.3	Effects of Exposure: EYES: SKIN: INGESTION:	Mild to moderate irrital Irritant and potential redness or rash). Gastrointestinal irritatio Central nervous systen	tion. skin sensitizer. Pro on and central nervo	longed or	repeated co	ntact may cau	Ingestion: use contact dermatitis (	
	Effects of Exposure: EYES: SKIN: INGESTION: INHALATION: Symptoms of Overexposure EYES: SKIN: INGESTION:	Irritant and potential redness or rash). Gastrointestinal irritation Central nervous system Justinary Mild irritation, redness, Contact dermatitis, ch Nausea, vomiting, and	tion. skin sensitizer. Pro n and central nervo n depressant. Irritati and watering. aracterized by local	longed or possible or system or ing to the up	repeated con depression. oper respirato puffy dry skin	ntact may cau ry tract. and itching.		(localiz
.3	Effects of Exposure: EYES: SKIN: INGESTION: INHALATION: Symptoms of Overexposure EYES: SKIN: INGESTION: INHALATION: Acute Health Effects: INGESTION: EYES: SKIN:	Irritant and potential redness or rash). Gastrointestinal irritation Central nervous system of the control of t	tion.  skin sensitizer. Pro  n and central nervo n depressant. Irritati  and watering. aracterized by local l diarrhea. at irritation, dizziness on and central nervo tion.	longed or sous system of ing to the up lized red or sous nausea, lig	repeated con lepression. oper respirato puffy dry skin ght-headedne lepression.	ry tract.  and itching.  ess, drunkennes	ise contact dermatitis (	(localiz
4	Effects of Exposure: EYES: SKIN: INGESTION: INHALATION: Symptoms of Overexposure EYES: SKIN: INGESTION: INHALATION: Acute Health Effects: INGESTION: EYES: SKIN: INGESTION: EYES: SKIN:	Irritant and potential redness or rash). Gastrointestinal irritation Central nervous system of the control of t	tion.  skin sensitizer. Pro  n and central nervo n depressant. Irritati  and watering. aracterized by local diarrhea. at irritation, dizziness on and central nervo tion. skin sensitizer. Pro	longed or sous system of lized red or sous system of longed or system of longed or sous system of longed or system of longed or system of longed or system of longed or sys	repeated con lepression. oper respirato puffy dry skin ght-headedne depression. repeated con	ntact may cau ry tract.  and itching. ess, drunkennes	ise contact dermatitis (	(localiz
.4	Effects of Exposure: EYES: SKIN: INGESTION: INHALATION: Symptoms of Overexposure: EYES: SKIN: INGESTION: INHALATION: Acute Health Effects: INGESTION: EYES: SKIN: INGESTION: EYES: SKIN: INGESTION: INHALATION: Chronic Health Effects: EYES: SKIN:	Irritant and potential redness or rash). Gastrointestinal irritation Central nervous system wild irritation, redness, Contact dermatitis, chausea, vomiting, and Mouth, nose, and throe Gastrointestinal irritation wild to moderate irritation and potential redness or rash). Gastrointestinal irritation central nervous system wild to moderate irritation wild to moderate irritation central nervous system wild to moderate irritation wild wild wild wild wild wild wild wild	tion.  skin sensitizer. Pro  n and central nervo n depressant. Irritati  and watering. aracterized by local l diarrhea. at irritation, dizziness on and central nervo tion. skin sensitizer. Pro on and central nervo n depressant. Irritati tion.	longed or sous system of the up lized red or sous system of the up longed or sous system of the up long to the up	repeated con lepression. oper respirato puffy dry skin ght-headedne depression. repeated con lepression. oper respirato	ry tract.  and itching. ess, drunkennes ntact may cau	ise contact dermatitis (	on.
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NOTE: All WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-2004 format.



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MSDS Revision Date: 01/29/2011 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 2.1 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH **NOHSC OSHA** ppm ppm OTHER ppm ES-ES-ES-RTECS No. **EINECS No.** % TLV STEL TLV CAS No. **TWA STEL PEAK** STEL IDLH CHEMICAL NAME(S) 64742-88-7 265-191-7 **PETROLEUM NAPHTHA** XS5250000 ≤ 75 100 NE 100 NE NE 100 NE NE **DIFLUOROETHANE** 75-37-6 KI4100000 200-866-1 ≤ 20 1000 NA 1000 NA NA 1000 NA NA **SKIN** ≤ 5 DeoxIT® Gold, G-Series, G100L TRADE SECRET NA 4. FIRST AID MEASURES 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. Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, seek prompt SKIN: medical attention. Do not wear contaminated clothing until after it has been properly cleaned. INGESTION: Drink plenty of water. If irritation persists, contact a physician. Remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate INHALATION: medical attention. If breathing stops, perform artificial respiration. 4.2 Medical Conditions Aggravated by Exposure: 1 HEALTH None reported by the manufacturer. 2 **FLAMMABILITY** PHYSICAL HAZARDS 0 PROTECTIVE EQUIPMENT SKIN **EYES** 5. FIREFIGHTING MEASURES 5.1 Flashpoint & Method: 48.8 °C - 54.4 °C (120 °F – 130 °F). Level 2 aerosol. 5.2 Autoignition Temperature: NA 5.3 Flammability Limits: Lower Explosive Limit (LEL): NA Upper Explosive Limit (UEL): NΑ 5 4 Fire & Explosion Hazards: Carbon dioxide, carbon monoxide, hydrocarbons. 5.5 CO<sub>2</sub>, Alcohol foam, Dry Chemical, Water Fog 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.



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 2.1 MSDS Revision Date: 01/29/2011 6. ACCIDENTAL RELEASE MEASURES 6.1 Secure spill area and deny entry to all unprotected individuals. Individuals involved in the cleanup should wear appropriate personal protective equipment. Area may become slippery. Absorb product onto porous material, such as sand, clay, diatomaceous earth or commercial absorbent material. Place into leak-proof, U.S. DOT-approved containers. If necessary, cover all drains and dike well ahead of the spill to prevent runoff into sewers, drains, and all waterways. Contact appropriate local or provincial authorities for assistance and/or reporting requirements. 7. HANDLING & STORAGE INFORMATION 7 1 Work & Hygiene Practices: Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact. Storage & Handling: 7.2 Store at temperatures between 59 °F and 95 °F (15 °C and 35 °C) in a dry, well-ventilated location. Keep away from heat, sparks, open flame, and other sources of ignition. Normal shelf-life: 2-3 years. 7.3 Special Precautions: Empty containers can contain flammable vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. 8. EXPOSURE CONTROLS & PERSONAL PROTECTION 8.1 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 Eve Protection: Wear safety glasses with side shields (ANSI Z87) under normal use conditions. 8.4 None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. In such cases, wear rubber or impervious plastic gloves. Body Protection: Use as necessary to prevent skin contact. 9. PHYSICAL & CHEMICAL PROPERTIES 9.1 Density: 0.75 9.2 Boiling Point: 171.1 °C - 204 °C @ 760 mmHg 9.3 Melting Point 9.4 Evaporation Rate: 0.11 (n-Butyl Acetate = 1.0) 9.5 Vapor Pressure: 35 psig @ 20 °C, 50 psig @ 50 °C 9.6 Molecular Weight: NA 9.7 Appearance & Color: Light amber/yellow, aerosol Odor Threshold: Ethereal/hydrocarbon odor 99 Solubility: Not soluble in water 9.10 ND 9.11 Viscosity: 10.5 cps 9 12 VOC (grams/liters) 588 g/l 9.13 Other Information: Vapor Density = 4.9 (Air = 1.0)



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ор		SC, WHMIS & 2001/58 EC Standards   MSDS Revision: 2.1   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 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.		
		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 no 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		
1.5	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.		
		10 FCOLOGICAL INFORMATION		
		12. ECOLOGICAL INFORMATION		
12.1	Environmental Stability:	This product will slowly volatile from soil. Components of this product will slowly decompose into organic compounds.		
12.2	Effects on Plants & Animals:	There is no specific data available for this product.		
12.3	Effects on Aquatic Life:	Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic life.		
12.4	Environmental Impact (Percent by	CFC: 0.0% HCFC: 0.0% CL.SOLV.: 0.0%		
	Weight):	VOC: 75.0% HFC: 20.0% ODP: 0.0%		
		13. DISPOSAL CONSIDERATIONS		
13.1	Waste Disposal: Dispose of in accordance with	federal, state or local regulations.		
13.2	Special Considerations:  EPA Waste Code: D001 (charac	cteristic – ignitability)		



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### 14. TRANSPORTATION INFORMATION

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

49 CFR (GND):
CONSUMER COMMODITY, ORM-D
IATA (AIR):
CONSUMER COMMODITY, 9, ID8000 (≤ 500 ml)
UN1950, AEROSOLS, 2.1 (> 500 ml)
IMDG (OCN):
UN1950, AEROSOLS, 2.1, LTD QTY (≤ 1.0 L)
TDGR (Canadian GND):
MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L)
ADR/RID (EU):
1950 AEROSOLS, 2.1, ADR, LTD QTY
SCT (Mexico):
UN1950, AEROSOLS, 2.1, CANTIDAD LIMITADA
ADGR (Australia):
UN1950, AEROSOLS, 2.1, LTD QTY



### 15. REGULATORY INFORMATION

15.1 SARA Reporting Requirements:

NA

15.2 SARA Threshold Planning Quantity:

NA

15.4

15.3 TSCA Inventory Status:

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

CERCLA Reportable Quantity (RQ):

NA

Other Federal Requirements: 15.5

NA

15.6 Other Canadian Regulations

> This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List.







State Regulatory Information:

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

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

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

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





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## MATERIAL SAFETY DATA SHEET

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MSDS Revision: 2.1 MSDS Revision Date: 01/29/2011 Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards 16. OTHER INFORMATION 16.1 Other Information: NA Terms & Definitions: See last page of this MSDS. This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's & CAIG Laboratories, Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition. Prepared for: CAIG Laboratories, Inc. 12200 Thatcher Court Poway, CA 92064-6876 +1 (800) CAIG-123 (244-4123) phone +1 (858) 486-8398 fax http://www.caig.com/ Prepared by: ShipMate, Inc. P.O. Box 787 780 Buckaroo Trail Suite D Sisters, OR 97759

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### **DEFINITION OF TERMS**

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

### **GENERAL INFORMATION:**

CAS No.	Chemical Abstract Service Number

### **EXPOSURE LIMITS IN AIR:**

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

### FIRST AID MEASURES:

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

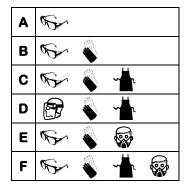
### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

### **HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**

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



### PERSONAL PROTECTION RATINGS:







### OTHER STANDARD ABBREVIATIONS:

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

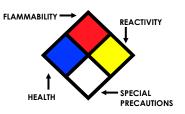
### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

### FLAMMABILITY LIMITS IN AIR:

Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of 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
<del>-W</del> -	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 <sub>Io</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>io</sub> , LD <sub>io</sub> , & LD <sub>o</sub> or	Lowest dose (or concentration) to cause lethal or
TC, TCo, LCio, & LCo	toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TLm	Median threshold limit
log Kow or log Koc	Coefficient of Oil/Water Distribution

### REGULATORY INFORMATION:

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

### EC INFORMATION:

		<b>1</b>	*		X	×	X
С	E	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful