



# SAFETY DATA SHEET

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MSDS-E-D5S-A

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58/EC & 1272/2008/EC Standards

MSDS Revision: 3.1

MSDS Revision Date: 08/20/2013

## 1. PRODUCT IDENTIFICATION

1.1	Product Name: <b>DeoxIT® D-Series, 5% Spray, (P/N D5S-6), 142 g</b>
1.2	Chemical Name: <b>See ingredients listed in section 3</b>
1.3	Synonyms: <b>DeoxIT®, D5S-6, 5% Spray</b>
1.4	Trade Names: <b>DeoxIT®, D5S-6, 5% Spray</b>
1.5	Product Use: <b>Clean, deoxidize &amp; improve electrical contacts &amp; connectors</b>
1.6	Manufacturer's Name: <b>CAIG Laboratories, Inc.</b>
1.7	Manufacturer's Address: <b>12200 Thatcher Court, Poway, CA 92064-6876 USA</b>
1.8	Emergency Phone: <b>CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-3887</b>
1.9	Business Phone: <b>+1 (800)-224-4123</b>
1.10	Other Product Names: <b>DeoxIT®, D5MS-15, 5% Spray, 14 g</b>

## 2. HAZARD IDENTIFICATION

2.1	<p>Hazard Identification:</p> <p>This product is classified as a HAZARDOUS SUBSTANCE but not as DANGEROUS GOODS according to the classification criteria of NOHSC: 1008(2004) and ADG Code (Australia).</p> <p><b>WARNING!</b> Flammable aerosol. Colorless, volatile liquid with ethereal and faint sweetish odor. 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.</p> <p><b>Hazard Statements (H):</b> H223 – Flammable aerosol.</p> <p><b>Precautionary Statements (P):</b> P210 – Keep away from heat/sparks/open flames/hot surfaces. P211 – Do not spray on an open flame or other ignition source. P251 – Pressurized container. Do not pierce or burn, even after use. P280 – Wear protective gloves and eyewear. P302 + P352 – IF ON SKIN – Wash with plenty of soap and water. P312 – Call a Poison Control Center or doctor/physician if you feel unwell. P333 + P313 – If skin irritation or rash occurs, get medical advice/attention. P321 – Refer to section 4 of this Safety Data Sheet (First Aid). P305+P351+P338 – IF IN EYES - Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P501 – Dispose of contents/container through licensed treatment, storage or disposal facility.</p>							
2.2	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES	
2.3	<p>Effects of Exposure:</p> <p><b>EYES:</b> Mild to moderate irritation.</p> <p><b>SKIN:</b> Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (localized redness or rash).</p> <p><b>INGESTION:</b> Gastrointestinal irritation and central nervous system depression.</p> <p><b>INHALATION:</b> Central nervous system depressant. Irritating to the upper respiratory tract.</p>							
2.4	<p>Symptoms of Overexposure:</p> <p><b>EYES:</b> Mild irritation, redness, and watering.</p> <p><b>SKIN:</b> Contact dermatitis, characterized by localized red or puffy dry skin and itching.</p> <p><b>INGESTION:</b> Nausea, vomiting, and diarrhea.</p> <p><b>INHALATION:</b> Mouth, nose, and throat irritation, dizziness, nausea, light-headedness, drunkenness, and loss of coordination.</p>							
2.5	<p>Acute Health Effects:</p> <p><b>INGESTION:</b> Gastrointestinal irritation and central nervous system depression.</p> <p><b>EYES:</b> Mild to moderate irritation.</p> <p><b>SKIN:</b> Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (e.g., localized redness and/or rash).</p> <p><b>INGESTION:</b> Gastrointestinal irritation and central nervous system depression.</p> <p><b>INHALATION:</b> Central nervous system depressant. Irritating to the upper respiratory tract.</p>							
2.6	<p>Chronic Health Effects:</p> <p><b>EYES:</b> Mild to moderate irritation.</p> <p><b>SKIN:</b> Irritant and potential skin sensitizer. Prolonged or repeated contact may cause contact dermatitis (e.g., localized redness and/or rash).</p> <p><b>INGESTION:</b> Gastrointestinal irritation and central nervous system depression.</p> <p><b>INHALATION:</b> Central nervous system depressant. Irritating to the upper respiratory tract.</p>							
2.7	<p>Target Organs:</p> <p>Eyes, skin and respiratory system.</p>							

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





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## 7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices: <b>Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact.</b>
7.2	Storage & Handling: <b>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.</b>
7.3	Special Precautions: <b>Empty containers can contain flammable vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.</b>

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Ventilation & Engineering Controls: <b>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).</b>
8.2	Respiratory Protection: <b>None required, when used with adequate ventilation.</b>
8.3	Eye Protection: <b>Wear safety glasses with side shields (ANSI Z87) under normal use conditions.</b>
8.4	Hand Protection: <b>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.</b>
8.5	Body Protection: <b>Use as necessary to prevent skin contact.</b>

## 9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	0.75
9.2	Boiling Point:	171.1 °C – 204 °C @ 760 mmHg
9.3	Melting Point:	NA
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
9.8	Odor Threshold:	Ethereal/hydrocarbon odor
9.9	Solubility:	Not soluble in water
9.10	pH	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)

## 10. STABILITY & REACTIVITY

10.1	Stability: <b>Stable under normal conditions of use (see section 7).</b>
10.2	Hazardous Decomposition Products: <b>Change in color signifies exposure to ultraviolet light or exceeding shelf life. Will not degrade to unstable products. Discard solution.</b>
10.3	Hazardous Polymerization: <b>Will not occur.</b>
10.4	Conditions to Avoid: <b>Use or storage near open flames, sparks, high heat (&gt;100 °F) or other heat sources, and proximity to incompatible substances and heavily trafficked areas.</b>
10.5	Incompatible Substances: <b>Strong oxidizers.</b>



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## 11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data: <b>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.</b>
11.2	Acute Toxicity: <b>See section 3.5</b>
11.3	Chronic Toxicity: <b>See section 3.6</b>
11.4	Suspected Carcinogen: <b>NE</b>
11.5	<b>This product is not reported to produce reproductive toxicity in humans.</b>
	Mutagenicity: <b>This product is not reported to produce mutagenic effects in humans.</b>
	Embryotoxicity: <b>This product is not reported to produce embryotoxic effects in humans.</b>
	Teratogenicity: <b>This product is not reported to produce teratogenic effects in humans.</b>
	Reproductive Toxicity: <b>This product is not reported to produce reproductive effects in humans.</b>
11.6	Irritancy of Product: <b>See Section 2.3</b>
11.7	Biological Exposure Indices: <b>NE</b>
11.8	Physician Recommendations: <b>Treat symptomatically.</b>

## 12. ECOLOGICAL INFORMATION

12.1	Environmental Stability: <b>This product will slowly volatile from soil. Components of this product will slowly decompose into organic compounds.</b>
12.2	Effects on Plants & Animals: <b>There is no specific data available for this product.</b>
12.3	Effects on Aquatic Life: <b>Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic life.</b>
12.4	Environmental Impact (Percent by Weight): <b>CFC: 0.0%</b> <b>HCFC: 0.0%</b> <b>HFC: 20.0%</b> <b>Chlorinated Solvent: 0.0%</b> <b>VOC: 75.0%</b> <b>ODP: 0.0%</b>

## 13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal: <b>Dispose of in accordance with federal, state or local regulations.</b>
13.2	Special Considerations: <b>EPA Waste Code: D001 (characteristic – ignitability)</b>

## 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): <b>CONSUMER COMMODITY, ORM-D (until 12/31/2020)</b> <b>UN1950, AEROSOLS, 2.1, LTD QTY (IP VOL ≤ 1.0 L)</b>	
14.2	IATA (AIR): <b>CONSUMER COMMODITY, 9, ID8000 (≤ 500 ml)</b> <b>UN1950, AEROSOLS, 2.1 (&gt; 500 ml)</b>	
14.3	IMDG (OCN): <b>UN1950, AEROSOLS, 2.1, LTD QTY (IP VOL ≤ 1.0 L)</b>	
14.4	TDGR (Canadian GND): <b>MARK PACKAGE "LIMITED QUANTITY" or "QUANTITÉ LIMITÉE" or "LTD QTY" or "QUANT LTÉE" (≤ 1.0 L)</b>	
14.5	ADR/RID (EU): <b>UN1950, AEROSOLS, 2.1, LTD QTY (IP VOL ≤ 1.0 L)</b>	
14.6	SCT (Mexico): <b>UN1950, AEROSOLS, 2.1, CANTIDAD LIMITADA (IP VOL ≤ 1.0 L)</b>	
14.7	ADGR (Australia): <b>UN1950, AEROSOLS, 2.1, LTD QTY (IP VOL ≤ 1.0 L)</b>	



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## 15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements: <b>NA</b>	
15.2	SARA Threshold Planning Quantity: <b>NA</b>	
15.3	TSCA Inventory Status: <b>All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status.</b>	
15.4	CERCLA Reportable Quantity (RQ): <b>NA</b>	
15.5	Other Federal Requirements: <b>NA</b>	
15.6	Other Canadian Regulations <b>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/NDL. None of the components of this product are listed on the Priorities Substances List.</b>	
15.7	State Regulatory Information: <b>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.</b>	
15.8	67/548/EEC (European Union) Requirements: <b>The primary component of this product is listed in Annex I of EU Directive 67/548/EEC: <u>Petroleum Naphtha</u>: Flammable, Harmful (F, Xn). <u>Risk Phrases</u> (R): 10-65 – Flammable. Harmful: may cause lung damage if swallowed. <u>Safety Phrases</u> (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. <b>WARNING!</b> Flammable aerosol. Colorless, volatile liquid with ethereal and faint sweetish odor. 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. <u>Hazard Statements</u> (H): H223 – Flammable aerosol. <u>Precautionary Statements</u> (P): P210 – Keep away from heat/sparks/open flames/hot surfaces. P211 – Do not spray on an open flame or other ignition source. P251 – Pressurized container. Do not pierce or burn, even after use. P280 – Wear protective gloves and eyewear. P302 + P352 – IF ON SKIN – Wash with plenty of soap and water. P312 – Call a Poison Control Center or doctor/physician if you feel unwell. P333 + P313 – If skin irritation or rash occurs, get medical advice/attention. P321 – Refer to section 4 of this Safety Data Sheet (First Aid). P305+P351+P338 – IF IN EYES - Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P501 – Dispose of contents/container through licensed treatment, storage or disposal facility.</b>	

## 16. OTHER INFORMATION

16.1	Other Information: <b>NA</b>	
16.2	Terms & Definitions: <b>See last page of this MSDS.</b>	
16.3	Disclaimer: <b>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 &amp; 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.</b>	
16.4	Prepared for: <b>CAIG Laboratories, Inc. 12200 Thatcher Court Poway, CA 92064-6876 Tel: +1 (800) CAIG-123 (244-4123) Fax: +1 (858) 486-8398 fax <a href="http://www.caig.com/">http://www.caig.com/</a></b>	
16.5	Prepared by: <b>ShipMate, Inc. P.O. Box 787 780 Buckaroo Trail Suite D Sisters, OR 97759 Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 <a href="http://www.shipmate.com">http://www.shipmate.com</a></b>	

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<b>DEFINITION OF TERMS</b>		

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

**GENERAL INFORMATION:**

<b>CAS No.</b>	Chemical Abstract Service Number
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**EXPOSURE LIMITS IN AIR:**

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

**FIRST AID MEASURES:**

<b>CPR</b>	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.
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**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS**






**HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**













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

HEALTH
FLAMMABILITY
PHYSICAL HAZARDS
PERSONAL PROTECTION

**PERSONAL PROTECTION RATINGS:**

<b>A</b>	
<b>B</b>	
<b>C</b>	
<b>D</b>	
<b>E</b>	
<b>F</b>	

<b>G</b>	
<b>H</b>	
<b>I</b>	
<b>J</b>	
<b>K</b>	
<b>X</b>	Consult your supervisor or SOPs for special handling directions.

 <b>Safety Glasses</b>	 <b>Splash Goggles</b>	 <b>Face Shield &amp; Eye Protection</b>	 <b>Gloves</b>
 <b>Boots</b>	 <b>Synthetic Apron</b>	 <b>Full Suit</b>	 <b>Dust Respirator</b>
 <b>Full Face Respirator</b>	 <b>Dust &amp; Vapor Half-Mask Respirator</b>	 <b>Full Face Respirator</b>	 <b>Airline Hood/Mask or SCBA</b>
<p><small>Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.</small></p>			

**OTHER STANDARD ABBREVIATIONS:**

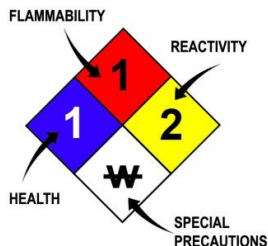
<b>NA</b>	Not Available
<b>NR</b>	No Results
<b>NE</b>	Not Established
<b>ND</b>	Not Determined
<b>ML</b>	Maximum Limit
<b>SCBA</b>	Self-Contained Breathing Apparatus

**NATIONAL FIRE PROTECTION ASSOCIATION: NFPA**

<b>FLAMMABILITY LIMITS IN AIR:</b>	
<b>Autoignition Temperature</b>	Minimum temperature required to initiate combustion in air with no other source of ignition
<b>LEL</b>	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
<b>UEL</b>	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
<b>ACD</b>	Acidic
<b>ALK</b>	Alkaline
<b>COR</b>	Corrosive
<b>W</b>	Use No Water
<b>OX</b>	Oxidizer
<b>TREFOIL</b>	Radioactive











**TOXICOLOGICAL INFORMATION:**

<b>LD<sub>50</sub></b>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
<b>LC<sub>50</sub></b>	Lethal concentration (gases) which kills 50% of the exposed animal
<b>ppm</b>	Concentration expressed in parts of material per million parts
<b>TD<sub>01</sub></b>	Lowest dose to cause a symptom
<b>TCLo</b>	Lowest concentration to cause a symptom
<b>TD<sub>01</sub>, LD<sub>01</sub>, &amp; LD<sub>50</sub> or TC, TC<sub>01</sub>, LC<sub>01</sub>, &amp; LC<sub>50</sub></b>	Lowest dose (or concentration) to cause lethal or toxic effects
<b>IARC</b>	International Agency for Research on Cancer
<b>NTP</b>	National Toxicology Program
<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>BCF</b>	Bioconcentration Factor
<b>TL<sub>m</sub></b>	Median threshold limit
<b>log K<sub>ow</sub> or log K<sub>oc</sub></b>	Coefficient of Oil/Water Distribution









**REGULATORY INFORMATION:**

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










**WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:**

							
<b>A</b>	<b>B</b>	<b>C</b>	<b>D1</b>	<b>D2</b>	<b>D3</b>	<b>E</b>	<b>F</b>
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

**EC (67/548/EEC) INFORMATION:**

							
<b>C</b>	<b>E</b>	<b>F</b>	<b>N</b>	<b>O</b>	<b>T+</b>	<b>Xi</b>	<b>Xn</b>
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

**CLP/GHS (1272/2008/EC) PICTOGRAMS:**

								
<b>GH01</b>	<b>GH02</b>	<b>GH03</b>	<b>GH04</b>	<b>GH05</b>	<b>GH06</b>	<b>GH07</b>	<b>GH08</b>	<b>GH09</b>
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment