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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 9/20/2018 SDS Revision: 6.3 1. PRODUCT & COMPANY IDENTIFICATION 1 1 Product Name: DEOXIT® D-SERIES DN5, 5% SPRAY, NON-FLAMMABLE, VOC COMPLIANT 1.2 Chemical Name: 1.3 Synonyms DeoxIT® D-Series 5% Spray; PN DN5S-6N and DN5S-2N (mini-spray) 1.4 Trade Names: DeoxIT® D-Series 5% Spray; PN DN5S-6N (163 grams), PN DN5S-2N (40 grams) 1.5 Product Use: Clean, deoxidize and improve electrical contacts & connectors 1.6 Distributor's Name: CAIG Laboratories, Inc. 1.7 Distributor's Address: 12200 Thatcher Court, Poway, CA 92064-6876 USA 1.8 Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN205206) 1.9 Business Phone / Fax: +1 (800) 224-4123 2. HAZARDS IDENTIFICATION 21 Hazard Identification: This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). WARNING! PRESSURIZED CONTAINER; MAY BURST IF HEATED. CAUSES EYE IRRITATION. Classification: Aerosols 3, Eye Irrit. 2B 2.2 Label Elements: Hazard Statements (H): H229 - Pressurized container; may burst if heated. H320 - Causes eye Precautionary Statements (P): P210 - Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking. P251 – Do not pierce or burn, even after use. P264 – Wash thoroughly after handling. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy. Continue rinsing. P337+P313 - If eye irritation persist: Get medical advice/attention. P403 - Store in a well-ventilated place. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F. P501 – Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF) Other Warnings: 2.3 KEEP OUT OF REACH OF CHILDREN. 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) **ACGIH** NOHSC **OSHA** ppm ppm ppm ES-TI V STEL STFI IDI H CHEMICAL NAME(S) CAS No. RTECS No. **EINECS No.** TWA STEL **PEAK** PFI OTHER NA NA NA 60-100 NA NA NF NF NF NA NA NA SOLSTICE® PF REACH Reg. No. 01-2119855084-38 1-PROPENE, 1,3,3,3-29118-24-9 NA NA 15-30 NA NA NF NF NF NA NA NA TETRAFLUORO-, (1E) REACH Reg. No. 01-0000019758-54 NA NA NF NF NF 15 NA NA NA 3-7 NA DEOXIT® D100L NA (TRADE SECRET) REACH Reg. No. Non-hazardous/Proprietary 4. FIRST AID MEASURES If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk First Aid: Ingestion: IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Splashes are not likely; however, mist may cause irritation. If product gets in the eyes may cause irritation; Eyes: flush with copious amounts of lukewarm water for at least 15 minutes lifting upper and lower lids, occasionally. If irritation persists repeat flushing. Get medical attention. Skin: Wash thoroughly with soap and water. In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Treat for frostbite if necessary, be gently warming affected area. If irritation, redness or swelling persists, contact a physician immediately. Remove victim to fresh air at once. If breathing difficult, administer oxygen. Gross overexposure may Inhalation: cause central nervous system depression, dizziness, confusion, incoordination, drowsiness, irregular heartbeat accompanied by a strange feeling in the chest, "heart thumping," apprehension, lightheadedness, weakness, fainting, loss of consciousness, and death. 42 Effects of Exposure: If product is swallowed, may cause nausea, vomiting and/or diarrhea. Ingestion: Eyes: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and watering. May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in Skin: some sensitive individuals. Inhalation: Gross overexposure may cause central nervous system depression, dizziness, confusion, incoordination, drowsiness, irregular heartbeat accompanied by a strange feeling in the chest, "heart thumping,"

apprehension, light-headedness, weakness, fainting, loss of consciousness, and death.



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			oms of skin overex			•	•	d irritatio	on of affe	acted are	as Fro
		like syr	mptoms. The prod								
		individu Inhalation: Gross o	uals. overexposure may	cause centi	al nervoi	e evetem	denressio	n dizzir	ness con	ofucion i	ncoording
		drowsin	ness, irregular hea	artbeat acc	ompanied	by a s	trange fe	eling in	the che	est, "hea	
.4	Acute Health Effects:		ension, light-headed								
.4	Acute Health Effects.	Moderate irritation to drowsiness, dizziness	•				,	concer	ntrations	or vapo	rs can c
.5	Chronic Health Effects:	Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.									
.6	Target Organs:	Eyes, Skin, Respirato	ory System.								
.7	Medical Conditions	Pre-existing dermatiti	is, other skin cond	litions, and	disorders	of the	HEALTH	4			1
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ł		containers to prevent									
ŀ		aerosols are bursting									
-		However, if involved	in a fire, this prod	duct may d	ecompose	at high	temperatu	ires to f	orm toxic	С	_
		gases (e.g., CO, Hydi	rogen Fluoride).								
2	Extinguishing Methods:	Water, Foam, CO ₂ , D	ry Chemical. Use v	vater spray	to cool un	opened o	ontainers.				
3	Firefighting Procedures:	Fight fires as for su						H appro	ved self		
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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision Date: 9/20/2018 SDS Revision: 6.3 8. EXPOSURE CONTROLS & PERSONAL PROTECTION – cont'd 8.3 Respiratory Protection No special respiratory protection is required under typical circumstances of use or handling. necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134, or applicable U.S. state regulations, or the appropriate standards of Canada, its provinces, E.C. member states, or Australia. 8.4 Eye Protection: Avoid eye contact. Protective eyewear recommended. Wear protective eyewear (e.g., safety glasses with side-shield) at all times when handling large quantities (of this product. Always use protective eyewear when cleaning spills or leaks. Contact lenses pose a special hazard; soft lenses may absorb and concentrate irritants. 8.5 Hand Protection: None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. If anticipated that prolonged & repeated skin contact will occur during use of this product, wear latex or rubber gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, the appropriate standards of Canada, of the E.C. member states. 8.6 Body Protection: No special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate standards of Canada, the E.C. member states, or U.S. OSHA 9. PHYSICAL & CHEMICAL PROPERTIES Appearance: 9.1 Light red aerosol spray/mist 92 Odor Ethereal / hydrocarbon odor 9.3 Odor Threshold: NA 9.4 NA Melting Point/Freezing Point: 9.5 NΑ Initial Boiling Point/Boiling 9.6 NA 9.7 Flashpoint NA Upper/Lower Flammability 9.8 NA 9.9 Vapor Pressure: 50 +/-5 psig @ 20 °C 9.10 Vapor Density NA Relative Density: 9.11 0.852 ± 0.012 (7.10 ± 0.1 lb/gal) 9.12 Solubility: Partial to complete 9.13 Partition Coefficient (log Pow): NA Autoignition Temperature: 9.14 NA 9.15 Decomposition Temperature: NA 9.16 Viscosity: NΑ 9.17 Other Information: 0% VOC 10. STABILITY & REACTIVITY 10.1 Stability: This product is stable. Hazardous Decomposition 10.2 Oxides of carbon (CO, CO₂) and sulfur (SO₂). Products: 10.3 Hazardous Polymerization: Will not occur. 10.4 Conditions to Avoid Open flames, sparks and high heat 10.5 Incompatible Substances: None known. 11. TOXICOLOGICAL INFORMATION Inhalation: YES Routes of Entry: Absorption: YES 11.1 Ingestion: YES Toxicity Data: This product has NOT been tested on animals to obtain toxicology data. Toxicology data, found in scientific literature, is 11.2 available for some of the components of the product. Acute Toxicity: See section 4.4 Chronic Toxicity See section 4.5 Suspected Carcinogen: This product does not contain any chemicals known to the State of California to cause cancer or other reproductive harm. For more information go to www.P65Warnings.ca.gov Reproductive Toxicity: 116 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 cause teratogenic effects in humans. Reproductive Toxicity: This product is not reported to cause reproductive effects in humans. 11.7 Irritancy of Product See Section 4.2 11.8 Biological Exposure Indices: NE Physician Recommendations: 11.9 Treat symptomatically.



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Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, GHS & 1272/2008/EC Standards SDS Revision: 6.3 SDS Revision Date: 9/20/2018 12. ECOLOGICAL INFORMATION Environmental Stability: 12.1 There is no specific data available for this product. 12.2 Effects on Plants & Animals: There are no specific data available for this product. Effects on Aquatic Life: 12.3 There are no specific data available for this product; however, very large releases of this product may be harmful or fatal to overexposed aquatic life. 13. DISPOSAL CONSIDERATIONS Waste Disposal: Products covered by this MSDS, in their original form, when disposed as waste, are considered non hazardous waste 13.1 according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with local, state and federal regulations. Dispose of in accordance with federal, state and local regulations. Special Considerations: 13.2 California Waste Code: 331 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 (IP VOL ≤ 1000 mL) - until 12/31/2020 UN1950, AEROSOLS, 2.2 (LTD QTY, IP VOL ≤ 1000 mL) 14.2 IATA (AIR): ID8000, CONSUMER COMMODITY, 9 (IP VOL ≤ 500 mL) **₩** UN1950, AEROSOLS, NON-FLAMMABLE, 2.2 (LTD QTY, IP VOL ≤ 820 mL) IMDG (OCN): 143 UN1950, AEROSOLS, 2.2 (LTD QTY, IP VOL ≤ 1000 mL) TDGR (Canadian GND): 14.4 UN1950, AEROSOLS, 2.2 (LTD QTY, IP VOL ≤ 1000 mL) or MARK PACKAGE "LIMITED QUANTITY," "LTD QTY," or "QUANT LTÉE" or "QUANTITÉ LIMITÉE" 14.5 ADR/RID (EU): UN1950, AEROSOLS, 2.2 (LTD QTY, IP VOL ≤ 1000 mL) SCT (MEXICO): UN1950, AEROSOLS, 2.2 (CANTIDAD LIMITADA, IP VOL ≤ 1000 mL) 14.7 ADGR (AUS): UN1950, AEROSOLS, 2.2 (LTD QTY, IP VOL ≤ 1000 mL) 15. REGULATORY INFORMATION SARA Reporting 15.1 This product does not contain any substances subject to SARA Title III, section 313 reporting requirements. Requirements: 15.2 There are no specific Threshold Planning Quantities for the components of this product. 15.3 TSCA Inventory Status The components of this product are listed on the TSCA Inventory. 15.4 CERCLA Reportable Quantity: NA 15.5 Other Federal Requirements: This material does not contain any hazardous air pollutants. This material does not contain any material listed as a Hazardous Substance under the CWA. None of the components in this product are listed as priority pollutants under the CWA. None of the components in this product are listed as toxic pollutants under the CWA 15.6 Other Canadian Regulations: This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS 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: No ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances

List (WI).

15.8

Other Requirements:

List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances

This product does not contain any chemicals known to the State of California to cause cancer, birth

defects, or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



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	16. OTHER INFORMATION				
16.1	Other Information:	directed. Keep away from heat, hot surface, s pierce or burn, even after use. Wash thorough minutes. Remove contact lenses, if present ar	AY BURST IF HEATED. CAUSES EYE IRRITATION. Use only as parks, open flames and other ignition sources. No smoking. Do not y after handling. IF IN EYES: Rinse cautiously with water for several deasy to do. Continue rinsing. If eye irritation persist: Get medical Protect from sunlight. Do not expose to temperatures exceeding 50 REN.		
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.			
16.3	Disclaimer:	This 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 is 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 Tel: +1 (800) CAIG-123 (244-4123) Fax: +1 (858) 486-8398 fax http://www.caig.com/	CAIG LABORATORIES, INC.		
16.5	Prepared by:	ShipMate, Inc. P.O. Box 787 Sisters, Oregon 97759-0787 USA Tel: +1 (310) 370-3600 Fax: +1 (310) 370-5700 http://www.shipmate.com	ShipMate Dangerous Goods Training & Consulting		



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DEFINITION OF TERMS

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

GENERAL INFORMATION:

CAS No. Chemical Abstract Service Number	
RTECS No.	Registry of Toxic Effects of Chemical Substances Number
EINECS No.	European Inventory of Existing Commercial Chemical Substances Number

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
IDLH	Immediately Dangerous to Life and Health
NOHSC	National Occupational Health and Safety Commission (Australia)
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL Short Term Exposure Limit	
TLV Threshold Limit Value	
TWA Time Weighted Average	

FIRST AID MEASURES:

CPR Cardiopulmonary resuscitation - method in which a person whose hear	
	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:

Α			
В			
С	(EV)	THE STATE OF THE S	
D	(EL)	THE STATE OF THE S	
Е			
F		H,	

G				
Н			H.	
I				
J		(E)	F	
K	The state of the s		M	
Х	Consult y special h	our supe andling d	rvisor or irections.	SOPs for



OTHER STANDARD ABBREVIATIONS:

Carc	Carcinogenic	
Irrit	Irritant	
NA	Not Available	
NR	No Results	
ND	Not Determined	
NE	Not Established	
NF	Not Found	
SCBA	Self-Contained Breathing Apparatus	
Sens	Sensitization	
STOT RE	Specific Target Organ Toxicity – Repeat Exposure	
STOT SE	Specific Target Organ Toxicity - Single Exposure	

NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILI	FLAMMABILITY LIMITS IN AIR:		
Autoignition Minimum temperature required to initiate combustion in air with no ot 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	FLAMMABILITY
1	Slight Hazard	\
2	Moderate Hazard	REACTIVITY
3	Severe Hazard	
4	Extreme Hazard	
ACD	Acidic	
ALK	Alkaline	
COR	Corrosive	/ ₹₩ ≯
₩	Use No Water	HEALTH
ох	Oxidizer	SPECIAL
TREFOIL	Radioactive	PRECAUTIONS

TOXICOLOGICAL INFORMATION:

	1 (1 1 5	
LD ₅₀	Lethal Dose (solids & liquids) which kills 50% of the exposed animals	
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 toxic ef		
TC, TCo, LCio, & LCo		
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)				
WGK	Wassergefährdungsklassen (German Water Hazard Class)				

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

0	®			Θ	(%)		
Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive

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

	®		\Diamond			\Diamond		*
GHS01	GHS02	GHS03	GHS04	GHS05	GHS06	GHS07	GHS08	GHS09
Explosive	Flammable	Oxidizer	Pressurized	Corrosive	Toxic	Harmful Irritating	Health Hazard	Environment