

Page 1 of 6 SDS-E-GN5S-6N

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

SDS Revision: 5.1

SDS Revision Date: 1/30/2016

1. PRODUCT & COMPANY IDENTIFICATION 1.1 Product Name: DEOXIT® GOLD G-SERIES, 5% SPRAY, (P/N GN5S-6N), 163 grams, **VOC Compliant** Chemical Name: 1.2 NA 1.3 DeoxIT® Gold G-Series 5% Spray: PN GN5S-6N Synonyms: 1.4 Trade Names: DeoxIT® Gold G-Series 5% Spray; PN GN5S-6N 1.5 Product Uses & Restrictions: Conditioner, enhancer for plated and gold plated electronic contacts & connectors 1.6 Distributor's Name: CAIG Laboratories, Inc. Distributor's Address: 12200 Thatcher Court, Poway, CA 92064-6876 USA 1.7 1.8 Emergency Phone: CHEMTREC: +1 (703) 527-3887 / +1 (800) 424-9300 (CCN XXXXX) Business Phone / Fax: 19 +1 (800) 224-4123 2. HAZARDS IDENTIFICATION This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS 21 Hazard Identification: according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia). DANGER! PRESSURIZED CONATINER; MAY BURST IF HEATED. EXT EXTREMELY FLAMMABLE GAS. Classification: Aerosols 1, Flam. Gas 1 Hazard Statements (H): H229 - Pressurized container; may burst if heated. 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. P410P412 -Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F P332+P313 - If skin irritation occurs: get medical advice/attention. P377 - Leaking gas fire: Don not extinguish, unless leak can be stopped safely. P381 - In case of leakage, eliminate all ignition sources. P403 - Store in a well-ventilated place. P405 - Store locked up. P501 - Dispose of contents/container to a licensed treatment, storage or disposal facility (TSDF). 3. COMPOSITION & INGREDIENT INFORMATION EXPOSURE LIMITS IN AIR (mg/m³) ACGIH NOHSC OSHA ppm ppm ppm ES-ES-ES-STEL STEL IDLH CAS No. RTECS No. EINECS No. % TLV TWA STEL PEAK PEL OTHER CHEMICAL NAME(S) 60-100 300 460-73-1 NA 419-170-6 NA NF NF NF NA NA NA 1,1,1,3-3-PENTAFLUORPROPANE 75-28-5 TZ4300000 200-857-2 10-30 600 750 NF NF NF NA NA NA ISOBUTANE Press. Gas, Flam. Gas 1; H229, H220 PROPRIETARY – TRADE SECRET 3-7 NA NA NA NA NF NF NF NA NA NA DEOXIT® GOLD G-SERIES, G100L NO HAZARDOUS INGREDIENTS 4. FIRST AID MEASURES If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk 4.1 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: Moderately irritating to the eyes. Symptoms of overexposure may include redness, itching, irritation and Eyes: watering. Skin: May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in 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



Page 2 of 6 SDS-E-GN5S-6N

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4.3 Symptoms of Oversponue 10 1			4. FIRST AID MEASURES – cont'd						
44 Anter Health Effects: Moderate initiation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cat drowniness, diziness, headbackes and nausea. Frostbie like effect to skin. 4.5 Chrone Health Effects: Overexposure may trigger astma-like symptoms in some sensitive individuals. May also induce skin sensitization a repriratory hypersensitivity. Possible allericic demantits. 4.7 Media Constitue Agravated by Exposure: Pre-existing demantits, other skin conditions, and disorders of the target organs (system.). Image organs: 4.7 Media Constitue Agravated by Exposure: Pre-existing demantits, other skin conditions, and disorders of the target organs (system.). Image organs: 5.1 Fire & Explosion Hazardt: Level 1 Aerosol (NFPA 30B). Aerosols may burst at temperatures above 120 °F. Cool uninvolved containers to prevent possible bursting. Aerosols may burst at temperatures above 120 °F. Cool uninvolved containers to prevent possible bursting. Aerosols may burst projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. This product is not flammable. However, if involved in a fire, this product may decompose at high temperatures to form toxic gases (e.g., Co, Hydrogen Fluoride). 6.3 Firefighting Procedures: Fight fires as for surrounding materials. As in any fire, weart MSHANINOSH approved positive arroy natural waterway. Firefighting apparatus to protect against potential hazardous conduction or any natural waterway. Firefighting apparatus to protect against potential hazardous conubustor of decomposition products an	4.3	Symptoms of Overexposure:	Ingestion: Nausea, intestinal discomfort, vomiting and/or diarrhea. <u>Eyes:</u> Overexposure in eyes may cause redness, itching and watering. <u>Skin</u> : Symptoms of skin overexposure may include redness, itching, and irritation of affected areas. Frostbite like symptoms. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some 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,"						
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4.7 Medical Conditions Aggravated by Exposure: Pre-existing dermatilis, other skin conditions, and disorders of the target organs (eyes, skin, and respiratory system). HEALTH 1 FLAMMABILITY 1 Aggravated by Expoure: 5. FLAMMABILITY 1 Aggravated by Expoure: 1 Fleph Theore (FLAMMABILITY 1 Fleph Theore (FLAMMABILITY 1	4.5	Chronic Health Effects:	Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization an						
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	7.3	Special Precautions:	Clean all spills promptly.						



Page 3 of 6 SDS-E-GN5S-6N

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SDS Revision: 5.1 SE

SDS Revision Date: 1/30/2016

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	8. EXPOSURE CONTROLS & PERSONAL PROTECTION									
8.1	Exposure Limits: ppm (mg/m ³)		ACGIH TLV STEL	ES-TWA	NOHSC ES-STEL	ES-PEAK	PEL	OSHA STEL	IDLH	OTHER
		CHEMICAL NAME(S) ISOBUTANE	600 750	NF	NF	NF	NA	NA	NA	
8.2	Ventilation & Engineering Controls:	General mechanical (e.g., fa exhaust ventilation to effecti product. Ensure appropriate	ans) or natural vely remove a	ventilation and preven	n is suffici It buildup	ent when the of vapors of	his proc or mist	luct is i generat	n use. ted fron	n the handling of this
8.3	Respiratory Protection:	No special respiratory protect instances where dusts of this protection authorized by 29 CAS Standard Z94.4-93 and Australia.	ction is require product are ge CFR §1910.13	ed under ty enerated, a 34, applica	vpical circu and respira ble U.S. S	umstances tory protect State regula	of use tion is n ations, c	or hand eeded, or the C	lling. In use only Canadiar	ר א ו
8.4	Eye Protection:	Avoid eye contact. None red when handling or using large				se. Safety	glasses	s could	be used	
8.5	Hand Protection:	None required under norma sensitive individuals. When h impervious plastic gloves.								
8.6	Body Protection:	No apron required when han eye wash stations and delug involving large quantities of th	ge showers sh	ould be av	/ailable. l	Jpon comp	letion o	f work a	activities	5
							<u> </u>			
9.1	Appearance:	9. PHYSIC					3			
9.1	Odor:	Light yellow aerosol spray/mi	SI							
9.3	Odor Threshold:	Ethereal / hydrocarbon odor NA								
9.4	pH:	NA								
9.5	Melting Point/Freezing Point:	NA								
9.6	Initial Boiling Point/Boiling		tofluoropropop	<u>^</u>						
0.7	Range:	15 °C (59 °F) - 1,1,1,3,3-Pen	tanuoropropan	е						
9.7 9.8	Flashpoint: Upper/Lower Flammability	NA								
9.8	Limits:	NA								
9.9	Vapor Pressure:	50 +/-5 PSIG @ 20 °C								
9.10	Vapor Density:	NA								
9.11	Relative Density:	0.8								
9.12	Solubility: Partition Coefficient (log Pow):	Not soluble in water								
9.13 9.14	Autoignition Temperature:	NA 412 °C (774 °F) – 1,1,1,3,3-F) ant affu a ran ran							
9.15	Decomposition Temperature:	NA	remanuoroprop	ane						
9.16	Viscosity:	NA								
9.17	Other Information:	VOC content 268 g/L								
		10. S	TABILITY	/ & RE/	ACTIVI	ΤY				
10.1	Stability:	Stable under normal conditio								
10.2	Hazardous Decomposition Products:	Change in color signifies exp Discard solution.					Will no	t degrad	de to un	stable products.
10.3	Hazardous Polymerization:	Will not occur.								
10.4	Conditions to Avoid:	Open flames, sparks, high he	eat, incompatib	le substand	ces and di	rect sunligh	ıt.			
10.5	Incompatible Substances:	Avoid extreme heat and igniti	ion sources. St	ore away f	rom oxidiz	ers.				
		44 TOV								
11 1	Routes of Entry:								Incost	
11.1 11.2	Toxicity Data:	Inhalation: YES This product has NOT been				YES	oviaclor	v dete	Ingest	
11.2		available for some of the com 1,1,1,3,3-Pentafluoropropane noted at 35,000 ppm, the thr ppm. Acute Inhalation (rat): effect. Acute Inhalation (mou activity during exposure.	ponents of the e: Acute Derm eshold for indu- 4-hr. $LC_{50} > 2$	e product: nal (rabbit) ction of car 200,000 ppi	− LD ₅₀ > rdiac arrhy m. No let	2,000 mg/k thmias in th hality at 20	ag; Card ne prese 0,000 p	iac Sen ence of i pm. Evi	nsitizatio injected idence	n (dogs) – No effects adrenalin was 44,000 of transient anesthetic
11.3	Acute Toxicity:	Moderate irritation to eyes drowsiness, dizziness, heada			areas. A	Additionally,	high c	concenti	rations	of vapors can cause
11.4	Chronic Toxicity:	This material may aggravate	any pre-existin	g skin cond	dition (e.g.	, dermatitis).			
11.5	Suspected Carcinogen:	No.								



Page 4 of 6 SDS-E-GN5S-6N

	LABORATORIES, INC.	
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		11. TOXICOLOGICAL INFORMATION – cont'd
.6	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 cause teratogenic effects in humans.
	Reproductive Toxicity:	This product is not reported to cause reproductive effects in humans.
7	Irritancy of Product:	The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) upon prolonged or repeated exposure.
.8	Biological Exposure Indices:	NE
.9	Physician Recommendations:	Treat symptomatically.
		12. ECOLOGICAL INFORMATION
.1	Environmental Stability:	There is no specific data available for this product.
.2	Effects on Plants & Animals:	There are no specific data available for this product.
.3	Effects on Aquatic Life:	There are no specific data available for this product; however, very large releases of this product may be harmful or fata to overexposed aquatic life.
		13. DISPOSAL CONSIDERATIONS
3.1	Waste Disposal:	Products covered by this MSDS, in their original form, when disposed as waste, are considered non hazardous was according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with local, state and feder regulations. Dispose of in accordance with federal, state and local regulations.
3.2	Special Considerations:	California Waste Code: 331
		14. TRANSPORTATION INFORMATION
ne lesc	basic description (ID Nur criptive information may b	nber, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additiona e required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.
.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or
		CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/2020
.2	IATA (AIR):	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L); or
		ID8000, CONSUMER COMMODITY, ORM-D (IP VOL ≤ 0.5 L)
1.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
1.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or MARK PACKAGE "LIMITED QUANTITY," "LTD QTY," or "QUANT LTÉE" or "QUANTITÉ
		LIMITÉE"
1.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
1.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
1.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
		15. REGULATORY INFORMATION
5.1	SARA Reporting	This product does not contain any substances subject to SARA Title III, section 313 reporting requirements.
- 0	Requirements:	
5.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
5.4	CERCLA Reportable Quantity (RQ):	NA
5.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G, (Cosmetics).
5.6	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.
7	State Degulatory Information	15. REGULATORY INFORMATION – cont'd
5.7	State Regulatory Information:	1,1,1,2-Tetrafluorethane can be found on the following state criteria lists: Minnesota Hazardous Substances List (MN) No other 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 (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardou Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvan Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).
5.8	Other Requirements:	Right-to-Know List (FA), Washington Fermissible Exposities List (WA), Wisconsin Hazardous Substances List (W). The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC: Isobutene: Flammable (F) <u>Risk Phrases:</u> (R) 12 – Extremely flammable. <u>Safety Phrases:</u> (S) 2-9-16 – Keep out of reach of children. Keep container in a well-ventilated place. Keep away from sources of ignition – No smoking.



Page 5 of 6 SDS-E-GN5S-6N

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

SDS Revision: 5.1

SDS Revision Date: 1/30/2016

		16. OTHER INFO	ORMATION					
16.1	Other Information: DANGER! PRESSURIZED CONATINER; MAY BURST IF HEATED. EXTREMELY FLAMMABLE GAS. Use only as directed. Keep out of reach of children. Keep container in a well-ventilated place. Keep away from sources of ignition – No smoking. KEEP LOCKED UP AND OUT OF REACH OF CHILDREN.							
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.						
16.3	Disclaimer:	government regulations must be reviewed for Laboratories, Inc.'s knowledge, the information accuracy, suitability or completeness is not guar provided. The information contained herein rela	SHA's Hazard Communication Standard, 29 CFR §1910.1200. Other applicability to this product. To the best of ShipMate's & CAIG contained herein is reliable and accurate as of this date; however, anteed and no warranties of any type, either expressed or implied, are ites only to the specific product(s). If this product(s) is combined with be considered. Data may be changed from time to time. Be sure to					
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/	EABORATORIES, 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					



Page 6 of 6 **SDS-E-GN5S-6N**

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

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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

EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists				
C	Ceiling Limit				
ES	Exposure Standard (Australia)				
IDLH	Immediately Dangerous to Life and Health				
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 heart has
	stopped receives manual chest compressions and breathing to circulate blood
	and provide oxygen to the body.

HMIS-III HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard	HEALTH
1	Slight Hazard	FLAMMABILITY
2	Moderate Hazard	PHYSICAL HAZARDS
3	Severe Hazard	PERSONAL PROTECTION
4	Extreme Hazard	

PERSONAL PROTECTION RATINGS:

Α			G				
В	\bigcirc		Н			F.I	
С			I				
D	B		J			Î	
Е			к	Î			
F			X	Consult y special h			r SOPs for s.
Sa	afety Glasse	es Splash Goggles		Face Shield & Gloves			
	Boots	Synthetic Apron	Protec &	tive Clothi Full Suit	ng I	Dust Resp	birator
Full I	Face Respire	rator Dust & Vapor Half- Mask Respirator		ull Face espirator	Ai	rline Hoo or SCI	
отн	ER STAN	DARD ABBREVIATION		•			
ML Maximum Limit							
	mg/m3	milligrams per cubic meter					
	NA	Not Available					
	ND	Not Determined					
	NE	Not Established					
	NF	Not Found					
	NR	No Results					
	ppm	parts per million					

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			
TREFOIL	Radioactive			



TOXICOLOGICAL INFORMATION:

Lethal Dose (solids & liquids) which kills 50% of the exposed animals
Lethal concentration (gases) which kills 50% of the exposed animal
Concentration expressed in parts of material per million parts
Lowest dose to cause a symptom
Lowest concentration to cause a symptom
Lowest dose (or concentration) to cause lethal or toxic effects
International Agency for Research on Cancer
National Toxicology Program
Registry of Toxic Effects of Chemical Substances
Bioconcentration Factor
Median threshold limit
Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

NEODE/III					
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				
NOHSC	National Occupational Health and Safety Commission (Australia)				
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)				
HMIS-III	National Paint & Coatings Association Hazardous Materials Identification System				

WORKPLACE HAZARDOUS MATERIALS IDENTIFICATION (WHMIS) SYSTEM:

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Class A	Class B	Class C	Class D1	Class D2	Class D3	Class E	Class F		
Compressed	Flammable	Oxidizing	Toxic	Irritation	Infectious	Corrosive	Reactive		

EC (67/548/EEC) INFORMATION:

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

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

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