

Page 1 of 6 **GG-042** 

Prepared to OSHA, ACC, ANSI, WHSR, WHMIS, GHS & EU Standards

SDS Revision: 1.1

		1.	PRODUC	T & COM	PANY	IDENTI	-ICA I	IUN				
1.1	Product Name:	DUAL-AC						-				
1.2	Chemical Name:	Mixture										
1.3	Synonyms:		094, GG0095,			008 MG00	7 MG0	094 MG00	95 MG	0096 M	10000	MG0098
1.4	Trade Names:	MicroGold Dua								0030, 10	100033	9, 1000000
1.5	Product Use:	Disinfectant		cotant & Antim		I A Registra		50050-4-0	0000			
1.6	Distributor's Name:	Granite Gold, I	Inc									
1.7	Distributor's Address:	· · · · · · · · · · · · · · · · · · ·	on Court, Suite		0206411	54						
1.8	Emergency Phone:											
1.9	Business Phone / Fax:	Tel: +1 (858) 4	C +1 (703) {		/	424-9300						
		1 1 (000) 4	·99-09007 • 1 (	000) 47 5-7 000								
				ZARDS I								
2.1	Hazard Identification:											cording to the
		classification c										
												IN. CAUSES
		SERIOUS EY	E IRRITATION	. MAY CAUSE	E LONG L	ASTING HA	RMFUL	EFFECTS	S TO AQ	UATIC	LIFE.	
			Acute Tox. 4 (									
2.2	Label Elements:		<u>nents</u> (H): H30									
			9 – Causes Se	erious eye irrita	ation. H41	3 – May cau	use long	lasting ha	rmful eff	fects to		
		aquatic life.										
			Statements (P									
		gloves/ eye pr										
		P351+P338 -										
		lenses, if pres										
		medical advice										
		Specific treatm										
		up. P501 – I	Dispose of coi	ntents/containe	er to a lic	ensed treatr	nent, sto	orage, or o	disposal	facility		
		(TSDF).										
23	Other Warnings:											
2.3	Other Warnings:	KEEP OUT O	F REACH OF	CHILDREN.								
2.3	Other Warnings:	KEEP OUT O										
2.3	Other Warnings:	KEEP OUT O	F REACH OF O		BREDI	ENT INF	ORM	ATION				
2.3	Other Warnings:	KEEP OUT O			GREDI			EXPOSURE			n <sup>3</sup> )	
2.3	Other Warnings:	KEEP OUT O			GREDI	ENT INF	N	EXPOSURE		OSHA	n <sup>3</sup> )	
2.3	Other Warnings:	KEEP OUT O			GREDI		N	EXPOSURE   IOHSC ppm			n <sup>3</sup> )	
		КЕЕР ОИТ ОІ 3. СС	MPOSITI			ACGIH ppm	ES-	EXPOSURE OHSC ppm ES- ES-		OSHA ppm		OTHER
	Other Warnings:	KEEP OUT O			SREDI %	ACGIH	ES-	EXPOSURE   IOHSC ppm		OSHA ppm	n <sup>3</sup> )	OTHER
CHEMI		КЕЕР ОИТ ОІ 3. СС	MPOSITI			ACGIH ppm	ES-	EXPOSURE OHSC ppm ES- ES-		OSHA ppm		OTHER
CHEMI	CAL NAME(S)	KEEP OUT OI 3. CC	MPOSITI	ON & ING	%	ACGIH ppm TLV STEL	ES- TWA	EXPOSURE   IOHSC ppm ES- ES- STEL PEAK	PEL	OSHA ppm STEL	IDLH	OTHER
CHEMI PROP INGRE	CAL NAME(S) RIETARY INERT	KEEP OUT OI 3. CC	MPOSITI	ON & ING	%	ACGIH ppm TLV STEL	ES- TWA	EXPOSURE   IOHSC ppm ES- ES- STEL PEAK	PEL	OSHA ppm STEL	IDLH	OTHER
CHEMI PROP INGRE DIME <sup>-</sup> (TRIM	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL]	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6	MPOSITI RTECS No.	ON & ING EINECS No. NA 248-595-8	% 80-100 0-0.5	ACGIH ppm TLV STEL NA NA NA NA	ES- TWA	EXPOSURE   IOHSC ppm ES- ES- STEL PEAK NF NF NF NF	PEL	OSHA ppm STEL	IDLH NA	OTHER
CHEMI PROP INGRE DIME <sup>-</sup> (TRIM AMMC	CAL NAME(S) RIETARY INERT EDIENTS FHYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic	% 80-100 0-0.5 c Chronic 1;	ACGIH ppm TLV STEL NA NA NA NA H315, H319,	ES-           TWA           NF           NF           H400, H4	EXPOSURE   PPM ES- ES- STEL PEAK NF NF NF NF 110	PEL NA	OSHA ppm STEL NA NA	IDLH NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT	CAL NAME(S) RIETARY INERT EDIENTS ITHYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6	% 80-100 0-0.5 c Chronic 1; 0-0.5	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA	ES-           TWA           NF           NF           H400, H4	EXPOSURE   IOHSC ppm ES- ES- STEL PEAK NF NF NF NF	PEL	OSHA ppm STEL	IDLH NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT COMF	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18-	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6	% 80-100 0-0.5 c Chronic 1; 0-0.5	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA	ES-           TWA           NF           NF           H400, H4	EXPOSURE   PPM ES- ES- STEL PEAK NF NF NF NF 110	PEL NA	OSHA ppm STEL NA NA	IDLH NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT COMF ALKYI	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18- LDIMETHYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; 5	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3	% 80-100 0-0.5 c Chronic 1; 0-0.5 302, H312,	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400	NF           NF           H400, H4	ESPOSURE   ppm ES- ES- STEL PEAK NF NF NF NF 110 NF NF	IMITS IN / PEL NA NA	OSHA ppm STEL NA NA NA	IDLH NA NA NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT COMF ALKYI QUAT	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM 20UNDS, BENZYL C8-18- LDIMETHYL, CHLORIDES ERNARY AMMONIUM	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6	% 80-100 0-0.5 c Chronic 1; 0-0.5	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA	NF           NF           H400, H4	EXPOSURE   PPM ES- ES- STEL PEAK NF NF NF NF 110	PEL NA	OSHA ppm STEL NA NA	IDLH NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT QUAT QUAT QUAT QUAT QUAT	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18- LDIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL]	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; \$           85409-23-0	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7	% 80-100 0-0.5 : Chronic 1; 0-0.5 302, H312, 0-0.5	ACGIH           ppm           TLV         STEL           NA         NA           NA         NA           H315, H319,         NA           H314, H400         NA           NA         NA	NF           NF           NF           H400, H4           NF	ESPOSURE   ppm ES- STEL PEAK NF NF NF NF 10 NF NF NF NF	IMITS IN / PEL NA NA	OSHA ppm STEL NA NA NA	IDLH NA NA NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT QUAT QUAT QUAT QUAT QUAT	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL-	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; \$           85409-23-0	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7	% 80-100 0-0.5 : Chronic 1; 0-0.5 302, H312, 0-0.5	ACGIH           ppm           TLV         STEL           NA         NA           NA         NA           H315, H319,         NA           H314, H400         NA           NA         NA	NF           NF           NF           H400, H4           NF	ESPOSURE   ppm ES- STEL PEAK NF NF NF NF 10 NF NF NF NF	IMITS IN / PEL NA NA	OSHA ppm STEL NA NA NA	IDLH NA NA NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT QUAT QUAT QUAT QUAT QUAT	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18- LDIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL]	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; \$           85409-23-0	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; HS 287-090-7 e Dam. 1; Aquati	% 80-100 0-0.5 : Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA	NF           NF           H400, H4           NF           H4318, H	ESPOSURE   ppm ES- STEL PEAK NF NF NF NF 10 NF NF NF NF	IMITS IN / PEL NA NA	OSHA ppm STEL NA NA NA	IDLH NA NA NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT QUAT QUAT QUAT QUAT QUAT	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18- LDIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL]	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; \$           85409-23-0	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7	% 80-100 0-0.5 : Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA	NF           NF           H400, H4           NF           H4318, H	ESPOSURE   ppm ES- STEL PEAK NF NF NF NF 10 NF NF NF NF	IMITS IN / PEL NA NA	OSHA ppm STEL NA NA NA	IDLH NA NA NA	OTHER
CHEMI PROP INGRE DIME (TRIM AMMC QUAT QUAT QUAT QUAT QUAT QUAT	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18- LDIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL]	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey 4.	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7 e Dam. 1; Aquati FIRST AII	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1 ic Chronic 1	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA	NF           NF           NF           H400, H4           NF           H401, H4           NF	EXPOSURE           IOHSC           ppm           ES-         ES-           NF         NF           NF         NF           100         NF           NF         NF           400, H410         NF	IMITS IN /           PEL           NA           NA           NA           NA	OSHA ppm STEL NA NA NA NA	IDLH NA NA NA	OTHER
CHEMI PROP INGRI DIME (TRIMC QUAT COMF ALKYI QUAT COMF ((ETH DIME	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; \$           85409-23-0           Acute Tox. 4; \$           Ingestion:	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey <b>4.</b> DO NOT IND	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7 e Dam. 1; Aquati FIRST AII JCE VOMITIN	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1 D MEA IG! Cons	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA SURES Sult physicia	NF           NF           NF           H400, H4           NF           H400, H4           NF           H318, H           n immed	EXPOSURE           IOHSC           ppm           ES- STEL         ES- PEAK           NF         NF           NF         NF           I10         NF           NF         NF           400, H410         H410           diately or         Interview	IMITS IN A PEL NA NA NA NA NA	OSHA ppm STEL NA NA NA NA the nea	NA NA NA A	
CHEMI PROP INGRI DIME TRIMMC QUAT COMF ALKYI QUAT COMF ((ETH DIME	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S           Ingestion:	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey <b>4.</b> DO NOT IND	ON & ING	% 80-100 0-0.5 c Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1 D MEA IG! Cons imber. Pr	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA SURES sult physicia ovide an est	NF           NF           NF           H400, H4           NF           H400, H4           NF           H318, H           n           immeerimate of	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF 100 NF NF 400, H410 diately or the time a	PEL NA NA NA NA	OSHA ppm STEL NA NA NA NA the neau nt of the	NA NA NA A	Poison Control
CHEMI PROP INGRI DIME TRIMMC QUAT COMF ALKYI QUAT COMF QUAT COMF	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; \$           85409-23-0           Acute Tox. 4; \$           Ingestion:	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey 4. DO NOT INDI Center or local swallowed. Do	ON & ING	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1 D MEA IG! Cons imber. Pr ning by mo	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 SURES Sult physicial ovide an est puth to a cor	NF           NF           NF           H400, H4           NF           H400, H4           NF           H318, H           n           imate of nyulsing of	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF 110 NF NF 400, H410 diately or the time all or unconsci	IMITS IN /       PEL       NA       NA       NA       NA	OSHA ppm STEL NA NA NA NA the neau nt of the rson.	NA NA NA A	Poison Control tance that was
CHEMI PROP INGRI DIME TRIMMC QUAT COMF ALKYI QUAT COMF QUAT COMF	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S           Ingestion:           Eyes:	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey A. DO NOT INDD Center or local swallowed. Dc If product gets	ON & INC EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7 e Dam. 1; Aquati FIRST AII JCE VOMITIN emergency nu onot give anyth in the eyes,	% 80-100 0-0.5 c Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1 0-0.5 ic Chronic 1 0-0.5	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 SURES Sult physicial ovide an est puth to a cor	NF           NF           NF           H400, H4           NF           H400, H4           NF           H318, H           n           imate of nyulsing of	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF 110 NF NF 400, H410 diately or the time all or unconsci	IMITS IN /       PEL       NA       NA       NA       NA	OSHA ppm STEL NA NA NA NA the neau nt of the rson.	NA NA NA A	Poison Control
CHEMI PROP INGRI DIME TRIMMC QUAT COMF ALKYI QUAT COMF QUAT COMF	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S           Ingestion:           Eyes:	MPOSITI RTECS No. NA RG0186000 re Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey A. DO NOT INDD Center or local swallowed. Do If product gets irritation occurs	ON & INC EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7 e Dam. 1; Aquati FIRST AII JCE VOMITIN emergency nu onot give anyth in the eyes, s, contact a phy	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 302, H312, 0-0.5 ic Chronic 1 0-0.5 ic C	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA SURES sult physicia ovide an est puth to a cor a copious ar	NF NF NF H400, H4 NF , H318, H , H318, H	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF I10 NF NF 400, H410 diately or the time a or unconsc of lukeward	IMITS IN / PEL NA NA NA NA NA NA	OSHA ppm STEL NA NA NA NA NA the near unt of the rson. for at 1	NA N	Poison Control tance that was 5 minutes. If
CHEMI PROP INGRI DIME TRIMMC QUAT COMF ALKYI QUAT COMF QUAT COMF	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S           Ingestion:           Eyes:           Skin:	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey A. DO NOT INDD Center or local swallowed. Dc If product gets irritation occurs If irritation occurs	ON & INC EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; H3 287-090-7 e Dam. 1; Aquati FIRST AII JCE VOMITIN emergency nu onot give anyth in the eyes, s, contact a phy urs and produc	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 302, H312, 0, H31	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA A H314, H302, H314 H314, H302 H314, H314, H302 H314, H314, H314 H314, H314, H314 H314, H314,	NF NF NF H400, H4 NF , H318, H , H318, H	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF I10 NF NF 400, H410 Cliately or the time a or unconsc of lukewarn NF ukewarn	IMITS IN / PEL NA NA NA NA NA NA NA Contact nd amou ious per n water	OSHA ppm STEL NA NA NA NA NA the near unt of the rson. for at l vater, fo	IDLH NA NA NA NA Arest F e subs least 1 Ilowed	Poison Control tance that was 5 minutes. If by a thorough
CHEMI PROP INGRI DIME (TRIMC QUAT COMF ALKYI QUAT COMF ((ETH DIME	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S           Ingestion:           Eyes:           Skin:	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey LO NOT INDI Center or local swallowed. Do If product gets irritation occurs If irritation occurs	ON & ING	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1 0-0.5 ic Chronic 1 IG! Cons imber. Pr ning by mo flush with ysician. t is on the a with sc	ACGIH ppm TLV STEL NA NA NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA CON SURES Sult physicial ovide an est puth to a cor a copious ar e skin, rinse f pap and wa	NF NF NF H400, H4 NF , H318, H , H318, H , H318, H , H318, H	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF 110 NF NF 400, H410 diately or the time al or unconsco of lukeward	IMITS IN / PEL NA NA NA NA NA NA NA Contact nd amou ious per n water	OSHA ppm STEL NA NA NA NA NA the near unt of the rson. for at l vater, fo	IDLH NA NA NA NA Arest F e subs least 1 Ilowed	Poison Control tance that was 5 minutes. If
CHEMI PROP INGRI DIME (TRIMC QUAT COMF ALKYI QUAT COMF ((ETH DIME	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S           Ingestion:           Eyes:           Skin:	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey L DO NOT INDI Center or local swallowed. Dc If product gets irritation occurs If irritation If irritati If irritation If irritation If irritation If irrit	ON & ING	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 ic Chronic 1 0-0.5 ic Chronic 1 IG! Cons imber. Pr ning by mo flush with ysician. t is on the a with so contact a	ACGIH ppm TLV STEL NA NA NA NA NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA NA H314, H400 NA CON SURES Sult physicia ovide an est pouth to a cor a copious ar e skin, rinse f pap and wa a physician ir	NF NF NF H400, H4 NF H400, H4 NF H318, H NF n immee imate of ivulsing of nounts of thorough ter for a nmediate	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF 110 NF NF 400, H410 diately or the time al or unconsco of lukewarn hy with luke at least 15 ely.	IMITS IN /       PEL       NA       NA       NA       NA       NA       NA        NA <td< td=""><td>OSHA       ppm       STEL       NA       NA       NA       NA       NA       NA       off       atter, fo       es.</td><td>NA NA N</td><td>Poison Control tance that was 5 minutes. If by a thorough ediate medical</td></td<>	OSHA       ppm       STEL       NA       NA       NA       NA       NA       NA       off       atter, fo       es.	NA N	Poison Control tance that was 5 minutes. If by a thorough ediate medical
CHEMI PROP INGRI DIME TRIMMC QUAT COMF ALKYI QUAT COMF ((ETH DIME	CAL NAME(S) RIETARY INERT EDIENTS THYLOCTADECYL[3- ETHOXYSILYL) PROPYL] DNIUM CHLORIDE ERNARY AMMONIUM POUNDS, BENZYL C8-18" DIMETHYL, CHLORIDES ERNARY AMMONIUM POUNDS, C12-14-ALKYL- YLPHENYL) METHYL] THYL, CHLORIDES	KEEP OUT OI           3. CC           CAS No.           NA           27668-52-6           Skin Irrit. 2; Ey           63449-41-2           Acute Tox. 4; S           85409-23-0           Acute Tox. 4; S           Skino:           Ingestion:           Eyes:           Skin:	MPOSITI RTECS No. NA RG0186000 e Irrit. 2; Aquatic BO3151000 Skin Corr. 1B; Aq NA Skin Corr. 1B; Ey LO NOT INDI Center or local swallowed. Do If product gets irritation occurs If irritation occurs	ON & ING EINECS No. NA 248-595-8 Acute 1; Aquatic 264-151-6 uatic Acute 1; HG 287-090-7 e Dam. 1; Aquati JCE VOMITIN emergency nu not give anyth in the eyes, s, contact a phy urs and produc e affected are tation persists, to fresh air. If	% 80-100 0-0.5 Chronic 1; 0-0.5 302, H312, 0-0.5 ac Chronic 1 0-0.5 ic Chronic 1 0-0.5 ic Chronic 1 0-0.5 ic Chronic 1 0-0.5 ic Chronic 1 ic Chronic 1 ing by mc flush with ysician. t is on the a with so contact a not breat	ACGIH ppm TLV STEL NA NA NA NA H315, H319, NA NA H315, H319, NA NA H314, H400 NA NA H314, H400 NA NA I; H302, H314 SURES Sult physicia ovide an est poth to a cor a copious ar e skin, rinse f pap and wa a physician ir hing, clear v	NF NF NF H400, H4 NF H400, H4 NF , H318, H , H318, H , H318, H , H318, H , H318, H	ESPOSURE   PPM ES- STEL PEAK NF NF NF NF 110 NF NF 400, H410 diately or the time al or unconsc of lukewarn hy with lukk at least 15 ely. irway and s	IMITS IN /         PEL         NA	OSHA       ppm       STEL       NA       NA       NA       NA       NA       NA       NA       NA       off       att of the reson.       for at I       vater, fors.       Gelficial res	NA N	Poison Control tance that was 5 minutes. If by a thorough ediate medical n. If victim is



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4. FIRST AID MEASURES – cont'd Effects of Exposure: If product is swallowed, immediate burning in mouth, throat and abdomen and severe swelling of the 4.2 Ingestion: larynx, skeletal muscle paralysis affecting the ability to breathe, circulatory shock and convulsions. It is anticipated that this material will be corrosive to the eyes upon direct or prolonged contact. Irritating to Eyes: the eves direct contact can produce severe eve damage. It is anticipated that this material will be corrosive to the skin upon direct or prolonged contact. Irritating to Skin: skin in (especially in some sensitive individuals), direct or prolonged contact can produce severe irritation to the skin especially after prolonged and/or repeated contact. Inhalation vapors and mist of products can produce irritation of mucous membranes; however, inhalation Inhalation: of vapors in excess of the levels listed in Section 3 (Composition and Ingredient Information) can cause central nervous system depression (e.g., drowsiness, dizziness, headaches, nausea). 4.3 Symptoms of Overexposure: Overexposure may aggravate existing conditions. Exposure to large concentrations can cause headache, irritation of the eyes, nose and throat, and, if long continued, drowsiness and lassitude, loss of appetite, and inability to concentrate. Acute Health Effects: 4.4 Olfactory fatigue may occur. Contact with the eyes may cause permanent damage. Harmful by inhalation, ingestion and through skin contact. Corrosive - causes burns. May cause CNS depression. Chronic Health Effects: 4.5 None known. 46 Target Organs: Eyes, Skin, Respiratory System Medical Conditions Pre-existing dermatitis, other skin conditions, and disorders of the 47 HEALTH 2 Aggravated by Exposure: target organs (eves, skin, and respiratory system). FLAMMABILITY 0 PHYSICAL HAZARDS 1 **PROTECTIVE EQUIPMENT** Х LUNGS EYES SKIN 5. FIREFIGHTING MEASURES 5.1 Fire & Explosion Hazards: This product is non-flammable. When exposed to high temperatures, may produce hazardous decomposition products such as oxides of carbon and nitrogen, and smoke. Thermal decomposition may also produce toxic vapors/fumes or amines and other organic materials. 52 Extinguishing Methods: Use extinguishing agent suitable for the surrounding fire. Firefighting Procedures: 53 As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressuredemand) and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. 6. ACCIDENTAL RELEASE MEASURES 61 Spills Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment. For <u>small spills</u> (e.g., < 1 gallon (3.8 L)) wear appropriate personal protective equipment (e.g., goggles, gloves). Maximize ventilation (open doors and windows). Remove spilled material with absorbent material and place into appropriate closed container(s) for disposal. Dispose of properly in accordance with local, state and federal regulations. Wash all affected areas and outside of container with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse. For large spills (e.g., ≥ 1 gallon (3.8 L)), deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g., sand or earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for proper disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of drains, municipal sewers and open bodies of water. 7. HANDLING & STORAGE INFORMATION 7.1 Work & Hygiene Practices: Do not ingest. Do not get in eyes, on skin, on clothing. Avoid breathing vapor/ spray/ mist. Avoid prolonged contact with the product. After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product. 7.2 Storage & Handling: KEEP OUT OF REACH OF CHILDREN. Do not store above 50 °C (122 °F). Keep containers closed until used. Open containers slowly on a stable surface. Keep container closed tightly when not in use. Empty container may contain residual amounts of this product; therefore, empty containers should be handled with care. Keep product from entering sewers, drains, drinking water supply, or any natural waterway. Store containers in a cool, dry location, away from direct sunlight, other light sources, or sources of intense heat. Store away from incompatible materials (See Section 10, Stability and Reactivity). Material should be stored in secondary containers as appropriate. 7.3 Special Precautions: Open containers slowly on a stable surface. Keep container tightly closed when not in use. Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care.



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3.1	Exposure Limits:		AC	GIH		NOHSC			OSHA		OTHER
	ppm (mg/m <sup>3</sup> )		<b>T</b> 1.1/	OTEL	50 TM	ES-	ES-	DEL	OTEL		
		CHEMICAL NAME(S) NA	NA	STEL NA	ES-TWA	STEL NF	PEAK NF	PEL NA	STEL NA	IDLH NA	
3.2	Ventilation & Engineering	When working with large quantiti									, fans). Ensi
	Controls:	that an eyewash station, sink or v									, ,
8.3	Respiratory Protection:	No special respiratory protection									
		necessary, use only respirator									
		§1910.134, or applicable U.S. st E.C. member states, or Australia		tions, or	the approp	oriate sta	ndards of	Canada	, its provi	nces,	
8.4	Eye Protection:	Wear chemical splash goggles w		is a not	ontial for a	we conta	oct Lleo a	afety al	eeee with	sida	~ ~
	,	shields under normal use condit									
		standards, or the European Stan			-	-		0	, -		
8.5	Hand Protection:	Rubber or neoprene, when need									AMM2A
		will occur during use of this prod						to U.S.	OSHA 29	CFR	(k)."/
8.6	Body Protection:	§1910.138, the appropriate stand									
0.0	Body Flotection.	No special body protection is appropriate protective clothing,									
		appropriate standards of Canada						II Nece	ssary, re		
			.,								
		9. PHYSICAL	. & CH		AL PRO	DPER	TIES				
9.1	Appearance:	Thin clear liquid					_				
9.2	Odor:	None									
9.3	Odor Threshold:	NA									
9.4	pH:	4.0-7.0									
9.5	Melting Point/Freezing Point:	NA									
9.6	Initial Boiling Point/Boiling	NA									
9.7	Range: Flashpoint:	NA									
9.8	Upper/Lower Flammability	NA									
9.9	Limits: Vapor Pressure:										
9.10	Vapor Density:	NA									
9.11	Relative Density:	~ 1.1									
9.12	Solubility:	Soluble									
9.13	Partition Coefficient (log Pow):	NA									
9.14	Autoignition Temperature:	NA									
9.15	Decomposition Temperature:	NA									
9.16	Viscosity:	NA									
9.17	Other Information:	NA									
		10. STA	ABILIT	Y & R	EACTI	VITY					
10.1	Stability:	Stable									
10.2	Hazardous Decomposition Products:	Thermal decomposition may pro	duce toxic	vapors/	fumes or a	amines a	ind other	organic	materials	and ox	ides of carb
40.0		and nitrogen.									
10.3	Hazardous Polymerization:	Will not occur.									
10.4	Conditions to Avoid:	Exposure or contact to extreme t			npatible ch	emicals,	strong lig	ht source	es, sparks	, flame.	
10.5	Incompatible Substances:	Strong oxidizers, peroxides, stron	ng acids oi	alkalis.							
		44 TOYIO		<u></u>		A A TI/					
		11. TOXICO	JLUGI				JN	- <u>r</u>			
11.1	Routes of Entry:	Inhalation: YES			Absorption:	YES			Ingesti		
11.2	Toxicity Data:	This product was not tested on	animals.	Toxicity	data is a	/ailable i	n scientifi	c literatu	ire but is	not pre	esented in th
11.3	Acute Toxicity:	document. See Section 4.4									
11.4	Chronic Toxicity:	See Section 4.5									
-	-	This product does not contain a	ny chamic	ala know	in to the C	toto of (	Colifornio	to opuor		hirth da	facta ar atk
11.5	Suspected Carcinogen:										



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		11 TOVICOLOCICAL INFORMATION control
		11. TOXICOLOGICAL INFORMATION – cont'd
11.6	Reproductive Toxicity:	This product is not reported to cause 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 toxicity in humans.
11.7	Irritancy of Product:	See Section 4.3
11.8	Biological Exposure Indices:	NE
11.9	Physician Recommendations:	Treat symptomatically
		12. ECOLOGICAL INFORMATION
10.1	Environmentel Stehility	
12.1 12.2	Environmental Stability:	There are no specific data available for this product.
	Effects on Plants & Animals:	There are no specific data available for this product.
12.3	Effects on Aquatic Life:	There are no specific data available for this product.
		13. DISPOSAL CONSIDERATIONS
13.1	Waste Disposal:	Review current local, state, and federal laws, codes, statutes, and regulations to determine current status and appropriate disposal method. Any disposal practice must follow local, state, and federal laws and regulations.
13.2	Special Considerations:	NA
		14. TRANSPORTATION INFORMATION
The l desc	basic description (ID Num riptive information mav be	ber, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.
14.1	49 CFR (GND):	NOT REGULATED
14.2	IATA (AIR):	NOT REGULATED
14.3	IMDG (OCN):	NOT REGULATED
14.4	TDGR (Canadian GND):	NOT REGULATED
14.5	ADR/RID (EU):	NOT REGULATED
14.6	SCT (MEXICO):	NOT REGULATED
14.7	ADGR (AUS):	NOT REGULATED
		15. REGULATORY INFORMATION
15.1	SARA Reporting Requirements:	This product does not contain any substance subject to SARA Title III, section 313 reporting requirements
15.2	SARA TPQ:	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. 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 CPR and the SDS contains all of the information required by the CPR. The components of this product are not listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substances List. WHMIS D2B (Other Toxic Effects)
15.7	State Regulatory Information:	Quaternary Ammonium Compounds, C <sub>12-14</sub> Alkyl Dimethyl Ethyl Methyl Ammonium Chlorides is found on the following state criteria list: Massachusetts Hazardous Substances List (MA) and Pennsylvania Right-to-Know List (PA). 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 (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 List (WI).
		This product does not contain any chemicals known to the State of California to cause cancer or other reproductive



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		16. OTHER INF	ORMATION
16.1	Other Information:	SERIOUS EYE IRRITATION. MAY CAUSE L directed. Avoid release to the environment. V soap and water. IF IN EYES: Rinse cautiousl easy to do. Continue rinsing. If eye irritation	LOWED. MAY BE HARMFUL IN CONTACT WITH SKIN. CAUSES ONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE. Use only as Vear protective gloves/ eye protection. IF ON SKIN: Wash with plenty of y with water for several minutes. Remove contact lenses, if present and persists: Get medical advice/attention. Call a POISON CENTER/doctor if intainer label or section 4 (First Aid) of this SDS. Store locked up. Keep DF REACH OF CHILDREN.
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	government regulations must be reviewed for knowledge, the information contained herein i completeness is not guaranteed and no wa information contained herein relates only to the	OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other applicability to this product. To the best of ShipMate's & Granite Gold's s reliable and accurate as of this date; however, accuracy, suitability or rranties of any type, either expressed or implied, are provided. The specific product(s). If this product(s) is combined with other materials, all Data may be changed from time to time. Be sure to consult the latest
16.4	Prepared for:	Granite Gold, Inc. 9170 Chesapeake Drive San Diego, CA 92123 USA Tel: +1 (858) 499-8933 http://www.granitegold.com/	
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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REACTIVITY

SPECIAL

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SDS Revision: 1.1 SD

SDS Revision Date: 7/31/2020

## **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:

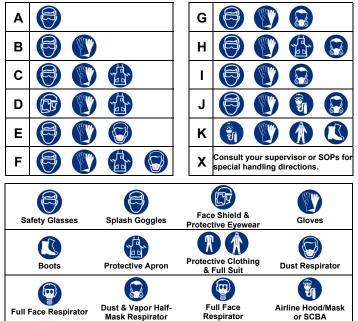
CPR	Cardiopulmonary resuscitation - method in which a person whose heart has
	stopped receives manual chest compressions and breathing to circulate blood
	and provide oxygen to the body.

#### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

#### HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

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

### PERSONAL PROTECTION RATINGS:



### 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

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	FLAMMABILITY
	1	Slight Hazard	
	2	Moderate Hazard	
	3	Severe Hazard	
	4	Extreme Hazard	
	ACD	Acidic	
	ALK	Alkaline	
	COR	Corrosive	∕
	W	Use No Water	HEALTH
	ох	Oxidizer	$\sim$
т	REFOIL	Radioactive	

### TOXICOLOGICAL INFORMATION:

LD <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC <sub>50</sub>	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 toxic effects
TC, TC <sub>o</sub> , LC <sub>io</sub> , & LC <sub>o</sub>	
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:

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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

### 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