

1FID: 00199834  
VER DATE: 1985-04-22

C H E M I S T R I  
MATERIAL SAFETY DATA SHEET

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SECTION 01: CHEMICAL PRODUCT & COMPANY ID  
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PRODUCT PRIMARY NAME: GOODWRENCH 1 ETCHING COMPOUND  
ALL SYNONYMS : CN5247  
ENGINEERING EVALUATION  
ETCHING COMPOUND  
ETCHING KIT  
GM VEHICLE ID SECURITY SYSTEM KIT  
GOODWRENCH 1 ETCHING COMPOUND  
12329242  
12329242 GOODWRENCH 1 ETCHING COMPOUND  
12345335  
12345624

MSDS SIGNED BY NAME: DAVID E. JACK  
MSDS SIGNED BY TITLE: VICE PRESIDENT

SAFE USE CATEGORY AND DESCRIPTION: 09 -CORROSIVES - CONCENTRATED ACID -  
pH < 4

LAST UPDATED DATE: 1987-05-26

MANUFACTURER'S ID (MID): 000538845  
MANUFACTURER'S NAME: SECURITY ETCH INTERNATIONAL  
MANUFACTURER'S EMERGENCY PHONE NUMBER/TEXT: US 714-731-4477  
MANUFACTURER'S MAILING ADDRESS:

15551 REDHILL AVE  
TUSTIN CA 92680  
US

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SECTION 02: COMPOSITION & INGREDIENT INFO  
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CAS#	FORMULATION	W/V	CHEMICAL NAME
007664393	= 22.5000/ 0.0000%	V	HYDROFLUORIC ACID
007732185	= 45.6000/ 0.0000%	V	WATER
009000651	= 5.7000/ 0.0000%	V	TRAGACANTH GUM
015096523	= 26.2000/ 0.0000%	V	SODIUM FLUOALUMINATE

THRESHOLD LIMIT VALUE: 2.5MG/M

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SECTION 03: HAZARDS IDENTIFICATION  
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PRIMARY ENTRY ROUTE INDICATORS:  
SKIN PRIMARY ENTRY ROUTE INDICATOR = N  
EYE PRIMARY ENTRY ROUTE INDICATOR = N  
INHALATION PRIMARY ENTRY ROUTE INDICATOR = N  
INGESTION PRIMARY ENTRY ROUTE INDICATOR = N

EFFECTS OF OVEREXPOSURE: SKIN RASH; IRRITATING TO SKIN AND EYES.  
RESULTS IN GASTRIC, INTESTINAL, CIRCULATORY, RESPIRATORY & NERVOUS  
COMPLAINTS.

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SECTION 04: FIRST AID MEASURES  
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EMERGENCY FIRST AID PROCEDURES - GENERAL: FLUSH WITH WATER FOR 15 MINUTES.

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SECTION 05: FIRE-FIGHTING MEASURES  
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EXTINGUISHING MEDIA: NOT A FIRE HAZARD.

SPECIAL FIRE FIGHTING PROCEDURES: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS: WHEN HEATED TO DECOMPOSITION, TOXIC FUMES ARE EMMITTED. PERSONAL RESPIRATORY PROTECTION REQUIRED.

NFPA CODES:

NFPA FLAMMABILITY CODE =	1
NFPA HEALTH CODE =	3
NFPA REACTIVITY CODE =	1

FLASH POINT TEMPS: > 93.00C/ 200.00F

FLASH POINT TEXT: >200

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SECTION 06: ACCIDENTAL RELEASE MEASURES  
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SPILL OR LEAK PROCEDURES: FLUSH WITH WATER; NEUTRALIZE WITH SODIUM BICARBONATE (SODS ASH).

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SECTION 07: HANDLING AND STORAGE  
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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: KEEP CONTAINERS SEALED. KEEP AWAY FROM HEAT. STORE IN A COOL DRY PLACE.

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SECTION 08: EXPOSURE CONTROLS - PROTECTION  
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EYE PROTECTION: PLASTIC GOGGLES

RESPIRATORY PROTECTION: NO SPECIAL PROTECTION REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT: N/A

SECTION 8 - OTHER INFORMATION: N/A

PROTECTIVE GLOVES (SPECIFY TYPE): RUBBER OR NEOPRENE

-----  
SECTION 09: PHYSICAL & CHEMICAL PROPERTIES  
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BOILING POINT TEXT: N/A

SPECIFIC GRAVITY VALUES: = 2.0000

SPECIFIC GRAVITY TEXT: =2

VAPOR DENSITY TEXT: N/A

VAPOR PRESSURE TEXT: N/A

PERCENT VOLATILE BY VOLUME TEXT: N/A

EVAPORATION RATE TEXT: N/A

SOLUBILITY IN WATER VALUES/UOM: 10.0000G/L

SOLUBILITY IN WATER TEXT: 10G/L

PH OF PRODUCT IN SOLUTION WITH WATER/TEXT: 1

PH OF PRODUCT AS RECEIVED (NEAT)/VALUE: = 1.0000

APPEARANCE: GREEN, SEMISOLID PASTE, SLIGHT ODOR.

PHYSICAL STATE: PAS

PHYSICAL STATE TEXT: PASTE

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SECTION 10: STABILITY & REACTIVITY

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STABILITY INDICATOR: Y

STABILITY - CONDITIONS TO AVOID: AVOID HEAT

STABILITY - TEXT: STABLE

INCOMPATIBLE MATERIALS: AVOID CONTACT WITH STRONG ACIDS.

HAZARDOUS DECOMPOSITION PRODUCTS: HYDROGEN FLUORIDE GAS

HAZARDOUS POLYMERIZATION INDICATOR: N

HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID: N/A

HAZARDOUS POLYMERIZATION TEXT: WILL NOT OCCUR.

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SECTION 13: DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL METHOD: NEUTRALIZE WITH SODIUM BICARBONATE AND TAKE TO A CHEMICAL DUMP.

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SECTION 16: OTHER INFORMATION

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LOCAL EXHAUST: N/A

SPECIAL PROTECTION: N/A

SPECIAL PROTECTION (MECHANICAL): N/A

SAFE USE CATEGORY AND DESCRIPTION :

09 CORROSIVES - CONCENTRATED ACID - pH < 4

REGULATORY IMPACTS (REG) AND ADDITIONAL HEALTH HAZARD STATEMENTS (HHS) :

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CAS#: 007664393 HYDROFLUORIC ACID

REG:

0003,0004,0006,0007,0009,0012,0015,0016,0017,0019,0020,0023  
0024,0028,0031,0032,0033,0034,0035,0037,0038,0039,0041,0042  
0047,0048,0053,0056,0058,0059,0061,0063,0065,0066,0067,0082  
0084,0088,0089,0103,0104,0123

HHS:

OVEREXPOSURE MAY RESULT IN SEVERE SKIN, EYE, RESPIRATORY IRRITATION.  
LUNG, LIVER, KIDNEY DAMAGE.

CAS#: 007732185 WATER

REG:

0012

REG BY CATEGORY:

0034,0049,0088,0090,0105,0106,0109,0112

CAS#: 009000651 TRAGACANTH GUM

REG:

0012,0065

CAS#: 015096523 SODIUM FLUOALUMINATE

REG:

0012,0038,0065

REGULATORY KEY LIST:

0001 OSHA-PEL	0003 ACGIH-TLV	0004 GM-SPEC CHEM
0005 SUSP CARCIN	0006 EPA HW261.33	0007 EPA HW-APP 8
0008 MCMR	0009 FWPC-SEC 311	0010 EPA PRIORPOL
0011 NY SUBS CONC	0012 TSCA INV	0014 MI AIR POLLU
0015 SUP TAX CHEM	0016 MI HW-ACT 64	0017 CA HAZ SUBST
0018 NY SAN 22.8	0019 MA SUBST	0020 NJ ENV SUBST
0021 TOX ORGANICS	0022 MD CLASS I	0023 MD CLASS II
0024 EPA-ATC-I	0026 EPA-CHEMCONC	0027 WB VERY TOX
0028 WB OTHER TOX	0031 ALLGHNY CTY	0032 IL-RTK
0033 OSHA-HHCL	0034 FLT CRIT IND	0035 GM-AHC
0036 PRO EP TOX	0037 MO SPECIES	0038 MO-RTK
0039 ONT 654-86	0040 ONT DES SUB	0041 SARA312EXHAZ
0042 WI TABLE 1	0043 WI TABLE 2	0047 SARA 313
0048 CERCLASEC103	0049 P-65 CARCINO	0050 P-65 REP TOX
0051 MD CLSI .11	0052 MD CLSI .12	0053 MD CLSII .12
0054 CT 29-1	0055 CT 29-2	0056 CT 29-3
0058 EPA261.33(F)	0059 CA AIR TOX 1	0060 CA AIR TOX 2
0061 PA RTK	0063 PELS REVISED	0064 NPDES-TOXPOL
0065 NJ W&C RTK	0066 CAA HAZ POL	0067 NV HIGH HAZ.
0068 MI 307-CARC	0069 MI 307-NCARC	0070 MICH AIR
0071 CAA602 CLSI	0075 C	0076 D
0078 GREAT LAKES	0080 METALS	0082 EPA 112(R)
0083 TSCA 8(D))	0084 GM OEG	0085 TSCA-TEST
0087 TSCA 12(B)	0088 NAT. POLL. REL	0089 NY CHEM BULK
0090 GL PERSIST	0091 LAND DISP. - II	0092 UAW/GM AUDIT
0093 TSCA - SPECIAL	0095 FIFRA REG MAT	0098 DSL - CANADA
0099 NDSL - CANADA	0102 GM 1000M	0103 CAA SEC. 112(R)
0104 CERCLA-HAZWOPER	0105 GLPPP-SPECIFIC	0106 GLPPP-SPECIFIC
0107 PET. DISTILLATE	0109 APPENDIX IX	0110 GLOBAL WARM CMP
0112 RCRA PBT -DRAFT	0113 IARC-GROUP 2B	0115 IARC-GROUP 1
0116 GMW 3059-RESTR.	0117 GMW 3059-REPORT	0118 T.W. REPORT

0121 HEX CHROME, PB, 0122 ACDM-REPORTING 0123 MDEQ PART 5

GMBA/PLANT USING THIS FID:

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GMBA: 000550678 SPO - DISTRIBUTABLE MATERIALS  
CISCO: 17001;  
STATUS :ACTIVE  
GMBA: 000550679 SPO - FLINT DIVISIONAL HDQTRS.  
CISCO: 17101;  
STATUS :ACTIVE  
GMBA: 000550957 CHEMICAL RISK MANAGEMENT  
CISCO: 89150;  
STATUS :ACTIVE  
GMBA: 000556705 ENVIRONMENTAL SYSTEMS HELPDESK  
CISCO: 99004;  
STATUS :ACTIVE

1FID: 00199835

C H E M I S T R I  
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SECTION 01: CHEMICAL PRODUCT & COMPANY ID  
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PRODUCT PRIMARY NAME: GOODWRENCH 2 NEUTRALIZER  
ALL SYNONYMS : CN5247  
ELECTRO-ETCH CLEANER  
ETCHING  
ETCHING KIT  
FOR EVALUATION ONLY  
GM VEHICLE ID SECURITY SYSTEM KIT  
GOODWRENCH 2 NEUTRALIZER  
NEUTRALIZER  
PREPARATION SOLUTION  
PREPARATION SOLUTION, NEUTRALIZER, ELECTRO-ETCH CLEANER  
12329243  
12345335

MSDS SIGNED BY NAME: DAVID E. JACK  
MSDS SIGNED BY TITLE: VICE PRESIDENT

SAFE USE CATEGORY AND DESCRIPTION: 03 -SOLVENTS - FLASH POINT: > 100 F

LAST UPDATED DATE: 1987-05-26

MANUFACTURER'S ID (MID): 000538845  
MANUFACTURER'S NAME: SECURITY ETCH INTERNATIONAL  
MANUFACTURER'S EMERGENCY PHONE NUMBER/TEXT: US 714-731-4477  
MANUFACTURER'S MAILING ADDRESS:

15551 REDHILL AVE  
TUSTIN CA 92680  
US

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SECTION 02: COMPOSITION & INGREDIENT INFO

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CAS#	FORMULATION		W/V	CHEMICAL NAME
000067630	= 20.0000/	0.0000%	V	ISOPROPYL ALCOHOL
007732185	= 80.0000/	0.0000%	V	WATER
009016459	= 0.0200/	0.0000%	V	TERGITOL NP-40 (nonionic)
025155300	= 0.2000/	0.0000%	V	CALSOFT F-90

THRESHOLD LIMIT VALUE: 400PPM

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SECTION 03: HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTE INDICATORS:

SKIN PRIMARY ENTRY ROUTE INDICATOR = N  
EYE PRIMARY ENTRY ROUTE INDICATOR = N  
INHALATION PRIMARY ENTRY ROUTE INDICATOR = N  
INGESTION PRIMARY ENTRY ROUTE INDICATOR = N

EFFECTS OF OVEREXPOSURE: EYE, NOSE, THROAT AND SKIN IRRITATION;  
INHALATION PRODUCES MILD NARCOSIS. ABSORBED BY SKIN.

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SECTION 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES - GENERAL: FLUSH WITH WATER.

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SECTION 05: FIRE-FIGHTING MEASURES

FLAMMABLE LEL: 2.00  
FLAMMABLE UEL: 12.00

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL.

SPECIAL FIRE FIGHTING PROCEDURES: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

NFPA CODES:

NFPA FLAMMABILITY CODE = 2  
NFPA HEALTH CODE = 2  
NFPA REACTIVITY CODE = 1

FLASH POINT TEMPS: 48.00C/ 120.00F  
FLASH POINT TEXT: 120F

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SECTION 06: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: FLUSH WITH WATER, MOP UP.

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SECTION 07: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: AVOID HIGH  
TEMPERATURES AND FLAMES; KEEP CONTAINERS SEALED.

SECTION 7 - OTHER INFORMATION: N/A

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SECTION 08: EXPOSURE CONTROLS - PROTECTION  
-----

EYE PROTECTION: GOGGLES

RESPIRATORY PROTECTION: NO SPECIAL PROTECTION REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT: N/A

SECTION 8 - OTHER INFORMATION: N/A

PROTECTIVE GLOVES (SPECIFY TYPE): RUBBER GLOVES  
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SECTION 09: PHYSICAL & CHEMICAL PROPERTIES  
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BOILING POINT TEMPS: 85.00C/ 185.00F  
BOILING POINT TEXT: 85C

SPECIFIC GRAVITY VALUES: = 0.9600  
SPECIFIC GRAVITY TEXT: =0.96

VAPOR DENSITY VALUES: 2.0000  
VAPOR DENSITY TEXT: 2.0  
VAPOR PRESSURE VALUES/UOM: 21.0000  
VAPOR PRESSURE TEXT: 21(MM-HG) "

PERCENT VOLATILE BY VOLUME: 20.0000  
PERCENT VOLATILE BY VOLUME TEXT: 20

EVAPORATION RATE VALUES: 1.20  
EVAPORATION RATE TEXT: 1.2

SOLUBILITY IN WATER TEXT: COMPLETE

PH OF PRODUCT IN SOLUTION WITH WATER/TEXT: 6.5

PH OF PRODUCT AS RECEIVED (NEAT)/VALUE: = 6.5000

APPEARANCE: CLEAR, BLUE LIQUID; ALCOHOL ODOR.

PHYSICAL STATE: LIQ  
PHYSICAL STATE TEXT: LIQUID  
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SECTION 10: STABILITY & REACTIVITY  
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STABILITY INDICATOR: Y  
STABILITY - CONDITIONS TO AVOID: AVOID FLAME OR HIGH TEMPERATURES.  
STABILITY - TEXT: STABLE

INCOMPATIBLE MATERIALS: CAN REACT VIGOROUSLY WITH OXIDIZING MATERIALS.

HAZARDOUS POLYMERIZATION INDICATOR: N  
HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID: N/A  
HAZARDOUS POLYMERIZATION TEXT: WILL NOT OCCUR.

-----  
SECTION 13: DISPOSAL CONSIDERATIONS  
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WASTE DISPOSAL METHOD: SMALL QUANTITIES MAY BE FLUSHED DOWN DRAIN;  
LARGE QUANTITIES SHOULD BE TAKEN TO A CHEMICAL DUMP.

-----  
SECTION 16: OTHER INFORMATION  
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LOCAL EXHAUST: N/A

SPECIAL PROTECTION: N/A

SPECIAL PROTECTION (MECHANICAL): N/A

SAFE USE CATEGORY AND DESCRIPTION :

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03 SOLVENTS - FLASH POINT: > 100 F

REGULATORY IMPACTS (REG) AND ADDITIONAL HEALTH HAZARD STATEMENTS (HHS) :  
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CAS#: 000067630 ISOPROPYL ALCOHOL

REG:

0001,0003,0012,0014,0017,0019,0020,0023,0026,0031,0032,0034  
0035,0037,0038,0039,0047,0056,0061,0063,0065,0068,0069,0083  
0084,0085,0087,0088

CAS#: 007732185 WATER

REG:

0012

REG BY CATEGORY:

0034,0049,0088,0090,0105,0106,0109,0112

CAS#: 009016459 TERGITOL NP-40 (nonionic)

REG:

0012,0088,0117

CAS#: 025155300 CALSOFT F-90

REG:

0009,0012,0017,0032,0034,0048,0061,0065,0089,0104,0123

REGULATORY KEY LIST:

0001	OSHA-PEL	0003	ACGIH-TLV	0004	GM-SPEC CHEM
0005	SUSP CARCIN	0006	EPA HW261.33	0007	EPA HW-APP 8
0008	MCMR	0009	FWPC-SEC 311	0010	EPA PRIORPOL
0011	NY SUBS CONC	0012	TSCA INV	0014	MI AIR POLLU
0015	SUP TAX CHEM	0016	MI HW-ACT 64	0017	CA HAZ SUBST
0018	NY SAN 22.8	0019	MA SUBST	0020	NJ ENV SUBST
0021	TOX ORGANICS	0022	MD CLASS I	0023	MD CLASS II
0024	EPA-ATC-I	0026	EPA-CHEMCONC	0027	WB VERY TOX
0028	WB OTHER TOX	0031	ALLGHNY CTY	0032	IL-RTK
0033	OSHA-HHCL	0034	FLT CRIT IND	0035	GM-AHC
0036	PRO EP TOX	0037	MO SPECIES	0038	MO-RTK
0039	ONT 654-86	0040	ONT DES SUB	0041	SARA312EXHAZ
0042	WI TABLE 1	0043	WI TABLE 2	0047	SARA 313
0048	CERCLASEC103	0049	P-65 CARCINO	0050	P-65 REP TOX



0051 MD CLSI .11	0052 MD CLSI .12	0053 MD CLSII .12
0054 CT 29-1	0055 CT 29-2	0056 CT 29-3
0058 EPA261.33(F)	0059 CA AIR TOX 1	0060 CA AIR TOX 2
0061 PA RTK	0063 PELS REVISED	0064 NPDES-TOXPOL
0065 NJ W&C RTK	0066 CAA HAZ POL	0067 NV HIGH HAZ.
0068 MI 307-CARC	0069 MI 307-NCARC	0070 MICH AIR
0071 CAA602 CLSI	0075 C	0076 D
0078 GREAT LAKES	0080 METALS	0082 EPA 112(R)
0083 TSCA 8(D))	0084 GM OEG	0085 TSCA-TEST
0087 TSCA 12(B)	0088 NAT. POLL. REL	0089 NY CHEM BULK
0090 GL PERSIST	0091 LAND DISP. - II	0092 UAW/GM AUDIT
0093 TSCA - SPECIAL	0095 FIFRA REG MAT	0098 DSL - CANADA
0099 NDSL - CANADA	0102 GM 1000M	0103 CAA SEC. 112(R)
0104 CERCLA-HAZWOPER	0105 GLPPP-SPECIFIC	0106 GLPPP-SPECIFIC
0107 PET. DISTILLATE	0109 APPENDIX IX	0110 GLOBAL WARM CMP
0112 RCRA PBT -DRAFT	0113 IARC-GROUP 2B	0115 IARC-GROUP 1
0116 GMW 3059-RESTR.	0117 GMW 3059-REPORT	0118 T.W. REPORT
0121 HEX CHROME, PB,	0122 ACDM-REPORTING	0123 MDEQ PART 5

GMBA/PLANT USING THIS FID:

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GMBA: 000550678 SPO - DISTRIBUTABLE MATERIALS  
 CISCO: 17001;  
 STATUS :ACTIVE

GMBA: 000550679 SPO - FLINT DIVISIONAL HDQTRS.  
 CISCO: 17101;  
 STATUS :ACTIVE

GMBA: 000550681 SPO - FLINT PARTS  
 CISCO: 17501;  
 STATUS :ACTIVE

GMBA: 000550957 CHEMICAL RISK MANAGEMENT  
 CISCO: 89150;  
 STATUS :ACTIVE

GMBA: 000556705 ENVIRONMENTAL SYSTEMS HELPDESK  
 CISCO: 99004;  
 STATUS :ACTIVE

1FID: 00199837

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C H E M I S T R I  
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SECTION 01: CHEMICAL PRODUCT & COMPANY ID

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PRODUCT PRIMARY NAME: GOODWRENCH A ELECTRO ETCH

ALL SYNONYMS : CN5247

ELECTRO ETCH  
 ELECTRO-ETCH  
 ELECTRO-ETCH SOLUTION  
 ETCHING KIT  
 FOR EVALUATION ONLY  
 GM VEHICLE ID SECURITY SYSTEM KIT  
 GOODWRENCH A ELECTRO ETCH  
 12329244  
 12329244 GOODWRENCH A ELECTROETCH  
 12345335

MSDS SIGNED BY NAME: DAVID E. JACK  
MSDS SIGNED BY TITLE: VICE PRESIDENT

SAFE USE CATEGORY AND DESCRIPTION: 09 -CORROSIVES - CONCENTRATED ACID -  
pH < 4

LAST UPDATED DATE: 1987-05-26

MANUFACTURER'S ID (MID): 000538845  
MANUFACTURER'S NAME: SECURITY ETCH INTERNATIONAL  
MANUFACTURER'S EMERGENCY PHONE NUMBER/TEXT: US 714-731-4477  
MANUFACTURER'S MAILING ADDRESS:

15551 REDHILL AVE  
TUSTIN CA 92680  
US

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SECTION 02: COMPOSITION & INGREDIENT INFO

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CAS#	FORMULATION	W/V	CHEMICAL NAME
000107211	= 20.0000/ 0.0000%	V	ETHYLENE GLYCOL
000144627	= 0.0500/ 0.0000%	V	OXALIC ACID
007732185	= 65.0000/ 0.0000%	V	WATER
007786303	= 10.0000/ 0.0000%	V	Magnesium chloride
989911529	= 0.0200/ 0.0000%	V	SURFACTANT

THRESHOLD LIMIT VALUE: N/A

PERMISSIBLE EXPOSURE LIMIT: N/A

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SECTION 03: HAZARDS IDENTIFICATION

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PRIMARY ENTRY ROUTE INDICATORS:

SKIN PRIMARY ENTRY ROUTE INDICATOR =	N
EYE PRIMARY ENTRY ROUTE INDICATOR =	N
INHALATION PRIMARY ENTRY ROUTE INDICATOR =	N
INGESTION PRIMARY ENTRY ROUTE INDICATOR =	N

EFFECTS OF OVEREXPOSURE: SKIN AND EYE IRRITATION; CRACKING AND  
FISSURING OF SKIN.

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SECTION 04: FIRST AID MEASURES

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EMERGENCY FIRST AID PROCEDURES - GENERAL: FLUSH WITH WATER.

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SECTION 05: FIRE-FIGHTING MEASURES

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FLAMMABLE LEL: 3.20

EXTINGUISHING MEDIA: ALCOHOL FOAM, WATER, FOAM, CARBON DIOXIDE, DRY  
CHEMICAL.

SPECIAL FIRE FIGHTING PROCEDURES: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

NFPA CODES:

NFPA FLAMMABILITY CODE =	1
NFPA HEALTH CODE =	3
NFPA REACTIVITY CODE =	1

FLASH POINT TEMPS: > 93.00C/ 200.00F

FLASH POINT TEXT: >200F CLOSED CUP

FLASH POINT METHOD: CC

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SECTION 06: ACCIDENTAL RELEASE MEASURES

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SPILL OR LEAK PROCEDURES: FLUSH WITWATER AND MOP UP.

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SECTION 07: HANDLING AND STORAGE

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: AVOID HIGH TEMPERATURES OR FLAMES. KEEP CONTAINERS SEALED.

SECTION 7 - OTHER INFORMATION: N/A

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SECTION 08: EXPOSURE CONTROLS - PROTECTION

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EYE PROTECTION: GOGGLES

RESPIRATORY PROTECTION: NO SPECIAL PROTECTION REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT: N/A

SECTION 8 - OTHER INFORMATION: N/A

PROTECTIVE GLOVES (SPECIFY TYPE): RUBBER GLOVES

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SECTION 09: PHYSICAL & CHEMICAL PROPERTIES

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BOILING POINT TEMPS: 38.00C/ 102.00F

BOILING POINT TEXT: 102F

SPECIFIC GRAVITY VALUES: = 1.0400

SPECIFIC GRAVITY TEXT: =1.04

VAPOR DENSITY VALUES: 1.1000

VAPOR DENSITY TEXT: 1.1

VAPOR PRESSURE VALUES/UOM: 10.0000MMHG

VAPOR PRESSURE TEXT: 10 MM HG

PERCENT VOLATILE BY VOLUME TEXT: 0

EVAPORATION RATE TEXT: N/A

SOLUBILITY IN WATER TEXT: COMPLETE

PH OF PRODUCT IN SOLUTION WITH WATER/TEXT: 1.4

PH OF PRODUCT AS RECEIVED (NEAT)/VALUE: = 1.4000

APPEARANCE: CLEAR, PINK; SLIGHT ODOR.

PHYSICAL STATE: LIQ

PHYSICAL STATE TEXT: LIQUID

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SECTION 10: STABILITY & REACTIVITY  
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STABILITY INDICATOR: Y

STABILITY - CONDITIONS TO AVOID: AVOID FLAME OR HIGH TEMPERATURES.

STABILITY - TEXT: STABLE

INCOMPATIBLE MATERIALS: CAN REACT WITH OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS: CHLORINE GAS.

HAZARDOUS POLYMERIZATION INDICATOR: N

HAZARDOUS POLYMERIZATION TEXT: WILL NOT OCCUR.

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SECTION 13: DISPOSAL CONSIDERATIONS  
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WASTE DISPOSAL METHOD: SMALL QUANTITIES MAY BE FLUSHED DOWN DRAIN;  
LARGE QUANTITIES SHOULD BE TAKEN TO A CHEMICAL DUMP.

-----  
SECTION 16: OTHER INFORMATION  
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LOCAL EXHAUST: N/A

SPECIAL PROTECTION: N/A\

SPECIAL PROTECTION (MECHANICAL): N/A

SAFE USE CATEGORY AND DESCRIPTION :

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09 CORROSIVES - CONCENTRATED ACID - pH < 4

REGULATORY IMPACTS (REG) AND ADDITIONAL HEALTH HAZARD STATEMENTS (HHS) :  
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CAS#: 000107211 ETHYLENE GLYCOL

REG:

0003,0012,0017,0020,0023,0031,0032,0034,0038,0039,0042,0047  
0048,0056,0061,0063,0065,0066,0068,0069,0070,0084,0088,0089  
0104,0123

CAS#: 000144627 OXALIC ACID

REG:

0001,0003,0012,0017,0019,0031,0032,0038,0039,0042,0056,0061  
0063,0065

CAS#: 007732185 WATER

REG:

0012

REG BY CATEGORY:

0034,0049,0088,0090,0105,0106,0109,0112

CAS#: 007786303 Magnesium chloride

REG:

0012

REG BY CATEGORY:

0047,0088

REGULATORY KEY LIST:

0001	OSHA-PEL	0003	ACGIH-TLV	0004	GM-SPEC CHEM
0005	SUSP CARCIN	0006	EPA HW261.33	0007	EPA HW-APP 8
0008	MCMR	0009	FWPC-SEC 311	0010	EPA PRIORPOL
0011	NY SUBS CONC	0012	TSCA INV	0014	MI AIR POLLU
0015	SUP TAX CHEM	0016	MI HW-ACT 64	0017	CA HAZ SUBST
0018	NY SAN 22.8	0019	MA SUBST	0020	NJ ENV SUBST
0021	TOX ORGANICS	0022	MD CLASS I	0023	MD CLASS II
0024	EPA-ATC-I	0026	EPA-CHEMCONC	0027	WB VERY TOX
0028	WB OTHER TOX	0031	ALLGHNY CTY	0032	IL-RTK
0033	OSHA-HHCL	0034	FLT CRIT IND	0035	GM-AHC
0036	PRO EP TOX	0037	MO SPECIES	0038	MO-RTK
0039	ONT 654-86	0040	ONT DES SUB	0041	SARA312EXHAZ
0042	WI TABLE 1	0043	WI TABLE 2	0047	SARA 313
0048	CERCLASEC103	0049	P-65 CARCINO	0050	P-65 REP TOX
0051	MD CLSI .11	0052	MD CLSI .12	0053	MD CLSII .12
0054	CT 29-1	0055	CT 29-2	0056	CT 29-3
0058	EPA261.33(F)	0059	CA AIR TOX 1	0060	CA AIR TOX 2
0061	PA RTK	0063	PELS REVISED	0064	NPDES-TOXPOL
0065	NJ W&C RTK	0066	CAA HAZ POL	0067	NV HIGH HAZ.
0068	MI 307-CARC	0069	MI 307-NCARC	0070	MICH AIR
0071	CAA602 CLSI	0075	C	0076	D
0078	GREAT LAKES	0080	METALS	0082	EPA 112(R)
0083	TSCA 8(D))	0084	GM OEG	0085	TSCA-TEST
0087	TSCA 12(B)	0088	NAT. POLL. REL	0089	NY CHEM BULK
0090	GL PERSIST	0091	LAND DISP. - II	0092	UAW/GM AUDIT
0093	TSCA - SPECIAL	0095	FIFRA REG MAT	0098	DSL - CANADA
0099	NDSL - CANADA	0102	GM 1000M	0103	CAA SEC. 112(R)
0104	CERCLA-HAZWOPER	0105	GLPPP-SPECIFIC	0106	GLPPP-SPECIFIC
0107	PET. DISTILLATE	0109	APPENDIX IX	0110	GLOBAL WARM CMP
0112	RCRA PBT -DRAFT	0113	IARC-GROUP 2B	0115	IARC-GROUP 1
0116	GMW 3059-RESTR.	0117	GMW 3059-REPORT	0118	T.W. REPORT
0121	HEX CHROME, PB,	0122	ACDM-REPORTING	0123	MDEQ PART 5

GMBA/PLANT USING THIS FID:

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GMBA: 000550678 SPO - DISTRIBUTABLE MATERIALS  
CISCO: 17001;  
STATUS :ACTIVE  
GMBA: 000550679 SPO - FLINT DIVISIONAL HDQTRS.  
CISCO: 17101;  
STATUS :ACTIVE  
GMBA: 000550681 SPO - FLINT PARTS  
CISCO: 17501;  
STATUS :ACTIVE  
GMBA: 000550957 CHEMICAL RISK MANAGEMENT  
CISCO: 89150;

STATUS :ACTIVE  
GMBA: 000556705 ENVIRONMENTAL SYSTEMS HELPDESK  
CISCO: 99004;  
STATUS :ACTIVE