

1FID: 00223967
VER DATE: 1989-07-20

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

DATE: 10/22/02
TIME: 19:01:44
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SECTION 01: CHEMICAL PRODUCT & COMPANY ID

PRODUCT PRIMARY NAME: COOLING SYSTEM FLUSH, X42
ALL SYNONYMS : AC DELCO RADIATOR FAST FLUSH
COOLING SYSTEM FLUSH
COOLING SYSTEM FLUSH, X42
DELCO RADIATOR FAST FLUSH
RADIATOR FAST FLUSH
X10-110
X42
12323184
3010 SP CODE

MSDS SIGNED BY NAME: ANDREW B. WHITLOCK
MSDS SIGNED BY TITLE: PREPARER

SAFE USE CATEGORY AND DESCRIPTION: 02 -SOLVENTS - FLASH POINT: < 100 F

LAST UPDATED DATE: 1990-01-19

MANUFACTURER'S ID (MID): 000539666
MANUFACTURER'S NAME: GUARDSMAN PRODUCTS INC
MANUFACTURER'S EMERGENCY PHONE NUMBER/TEXT: US 231-924-3950
MANUFACTURER'S MAILING ADDRESS:

ALSO SEE GMBA #556365
411 N. DARLING
FREMONT MI 49412
US

SECTION 02: COMPOSITION & INGREDIENT INFO

CAS#	FORMULATION	W/V	CHEMICAL NAME
000067561	R 1.0000/ 10.0000%	W	METHANOL
000067630	R 25.0000/ 35.0000%	W	ISOPROPYL ALCOHOL
000111762	R 10.0000/ 20.0000%	W	ETHANOL, 2-BUTOXY-
064742525	R 5.0000/ 15.0000%	W	MINERAL OIL, PETROLEUM DISTILLATES , HYDROTREATED (severe) HEAVY NAPHTHENIC
064742945	R 30.0000/ 40.0000%	W	SOLVENT NAPHTHA
989915687	R 1.0000/ 10.0000%	W	SURFACTANTS

THRESHOLD LIMIT VALUE: AROMATIC HYDROCARBON #64742945: 100 PPM STANDARD FOR STODDARD SOLVENT. 2-PROPANOL #67630: 400 PPM. ETHANOL, 2-BUTOXY- (BUTYL CELLOSOLVE) #111762: 25 PPM. DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC #64742525: 5 MG/M3. METHANOL #67561: 200 PPM.

PERMISSIBLE EXPOSURE LIMIT: AROMATIC HYDROCARBON #64742945: 500 PPM STANDARD FOR STODDARD SOLVENT. 2-PROPANOL #67630: 400 PPM. ETHANOL, 2-BUTOXY- (BUTYL CELLOSOLVE) #111762: 50 PPM. DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC #64742525: 5 MG/M3. METHANOL #67561: 200

PPM.

SECTION 03: HAZARDS IDENTIFICATION

PRIMARY ENTRY ROUTE INDICATORS:

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

PRIMARY ROUTES OF ENTRY TEXT: ORAL, INHALATION, SKIN ABSORPTION

EFFECTS OF OVEREXPOSURE: SIGNS AND SYMPTOMS: HEADACHE, DIZZINESS, NAUSEA, POSSIBLE LOSS OF CONSCIOUSNESS FROM INHALATION OF VAPORS AND MISTS; MAY CAUSE SEVERE EYE AND SKIN IRRITATION, WITH POSSIBLE DERMATITIS AND DEFATTING. INGESTION MAY CAUSE BLINDNESS OR DEATH.

ADDITIONAL HEALTH HAZARD DATA: CARCINOGENIC LISTING: NTP: NO, IARC: NO, OSHA: NO, ACGIH: NO. ETHANOL, 2-(2-BUTOXY)- (BUTYL CELLOSOLVE) #111762 AND METHANOL #67561: SARA III SECTION 313 TOXIC CHEMICALS. CHRONIC HAZARDS: OUR SUPPLIERS INDICATE THAT EXPOSURE TO COMPONENTS OF THIS PRODUCT MAY CAUSE KIDNEY AND LIVER DAMAGE. PROLONGED OVEREXPOSURES TO OTHER COMPONENTS IN THIS PRODUCT MAY CAUSE A TRANSIENT DECREASE IN RED BLOOD CELL COUNT, AND INCREASED FRAGILITY OF RED BLOOD CELLS. ADDITIONALLY, IN ANIMAL TERATOLOGY STUDIES WITH BUTYL CELLOSOLVE, ADVERSE EFFECTS WERE SEEN IN OFFSPRING AT LEVELS THAT WERE NOT MATERNALLY TOXIC. ALSO, HEALTH STUDIES HAVE SHOWN THAT MANY PETROLEUM HYDROCARBONS MAY POSE HUMAN HEALTH RISKS WHICH MAY VARY FROM PERSON TO PERSON. AS A PRECAUTION, EXPOSURE TO LIQUIDS, VAPORS, MISTS, OR FUMES SHOULD BE MINIMIZED.

SECTION 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES - GENERAL: EYE CONTACT: FLUSH WITH RUNNING WATER FOR 15 MINUTES, HOLDING LID OPEN TO EXPOSE SURFACE, CONTACT PHYSICIAN. SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND SHOES. WASH WITH MILD SOAP AND WATER, APPLY SKIN CREAM FOR IRRITATION. INHALATION: REMOVE TO FRESH AIR AT ONCE. APPLY ARTIFICIAL RESPIRATION IF NECESSARY, CONTACT PHYSICIAN IMMEDIATELY. INGESTION: IF CONSCIOUS, IMMEDIATELY GIVE ONE OR TWO GLASSES OF WATER AND INDUCE VOMITING. CONTACT PHYSICIAN AT ONCE. INGESTION MAY BE FATAL|

SECTION 05: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: FOAM, DRY CHEMICAL, CO2.

SPECIAL FIRE FIGHTING PROCEDURES: USE SELF-CONTAINED BREATHING APPARATUS (SCBA). WATER IS NOT SUITABLE AS AN EXTINGUISHING MEDIA, BUT MAY BE USEFUL FOR COOLING NEARBY CONTAINERS.

UNUSUAL FIRE AND EXPLOSION HAZARDS: PRODUCT IS FLAMMABLE. HMIS RATING: HEALTH=2, FLAMMABILITY=3, REACTIVITY=0. AUTOIGNITION TEMPERATURE: ND.

NFPA CODES:

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

FLASH POINT TEMPS: 11.00C/ 53.00F
FLASH POINT TEXT: 53F TCC
FLASH POINT METHOD: TCC

SECTION 06: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: REMOVE IGNITION SOURCES. DIKE AND TAKE UP WITH ABSORBENT MATERIAL, SUCH AS EARTH OR FLOOR DRY. ENSURE ADEQUATE VENTILATION.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: KEEP CONTAINERS CLOSED WHEN NOT IN USE. DO NOT STORE OR HANDLE NEAR HEAT, FLAME, OR STRONG OXIDIZERS. ALWAYS MAINTAIN ADEQUATE VENTILATION.

SECTION 7 - OTHER INFORMATION: AVOID BREATHING VAPORS OR MISTS; PROLONGED OR REPEATED SKIN CONTACT.

SECTION 08: EXPOSURE CONTROLS - PROTECTION

EYE PROTECTION: FACE SHIELD OR SAFETY GLASSES RECOMMENDED.

RESPIRATORY PROTECTION: NONE REQUIRED IN NORMAL USE, BUT AN EFFECTIVE NIOSH/MSHA APPROVED RESPIRATOR SHOULD BE USED AT ANY TIME WHEN VAPOR CONCENTRATIONS EXCEED ESTABLISHED STANDARDS.

PERSONAL PROTECTIVE EQUIPMENT: NONE REQUIRED IN NORMAL USE.
WORK/HYGIENIC PRACTICES: BASIC GOOD HOUSEKEEPING.

SECTION 8 - OTHER INFORMATION: NONE GENERALLY REQUIRED.

PROTECTIVE GLOVES (SPECIFY TYPE): CHEMICAL RESISTANT

SECTION 09: PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT TEXT: NOT DETERMINED (ND)

SPECIFIC GRAVITY VALUES: = 0.8700
SPECIFIC GRAVITY TEXT: =0.87 TYPICAL

VAPOR DENSITY VALUES: 1.0000
VAPOR DENSITY TEXT: (AIR=1): >1
VAPOR PRESSURE TEXT: ND

PERCENT VOLATILE BY VOLUME TEXT: ND

SOLUBILITY IN WATER TEXT: ND; WATER REACTIVE: NO.

PH OF PRODUCT IN SOLUTION WITH WATER/TEXT: ND

APPEARANCE: LIQUID, ALCOHOL ODOR.

PHYSICAL STATE: LIQ
PHYSICAL STATE TEXT: LIQUID

SECTION 10: STABILITY & REACTIVITY

STABILITY INDICATOR: Y
STABILITY - CONDITIONS TO AVOID: HEAT, SPARKS, OPEN FLAME.
STABILITY - TEXT: YES

INCOMPATIBLE MATERIALS: STRONG OXIDIZERS LIKE CHLORINE OR CONCENTRATED O2.

HAZARDOUS DECOMPOSITION PRODUCTS: VARIOUS OXIDES OF CARBON.

HAZARDOUS POLYMERIZATION INDICATOR: N
HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID: NONE KNOWN
HAZARDOUS POLYMERIZATION TEXT: NO

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: COMPLY WITH ALL APPLICABLE REGULATIONS.

SECTION 16: OTHER INFORMATION

LOCAL EXHAUST: YES, RATE: >60 FPM.

SPECIAL PROTECTION: ADEQUATE TO MAINTAIN LEVEL BELOW ESTABLISHED STANDARDS.

SPECIAL PROTECTION (MECHANICAL): NO
SAFE USE CATEGORY AND DESCRIPTION :

02 SOLVENTS - FLASH POINT: < 100 F

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

CAS#: 000067561 METHANOL

REG:

0001,0003,0006,0012,0014,0016,0017,0019,0020,0023,0026,0031
0032,0034,0035,0037,0038,0039,0047,0048,0056,0058,0059,0061
0063,0065,0066,0068,0070,0084,0088,0089,0091,0104,0123

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#: 000111762 ETHANOL, 2-BUTOXY-

REG:

0001,0003,0004,0012,0017,0019,0023,0031,0034,0038,0039,0042
0056,0061,0063,0065,0068,0069,0083,0084,0088

REG BY CATEGORY:

0020,0047,0048,0051,0066,0122

HHS:

LONG-TERM OVEREXPOSURE MAY RESULT IN BLOOD DISORDERS. TOXIC EFFECTS
CAN OCCUR FROM SKIN CONTACT.

CAS#: 064742525 MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (sever

REG:

0012,0107

REG BY CATEGORY:

0122

CAS#: 064742945 SOLVENT NAPHTHA

REG:

0012

REG BY CATEGORY:

0122

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:

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

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

GMBA: 000550976 GM TECHNICAL CENTER, TOTAL SITE
CISCO: 96003;
STATUS :ACTIVE

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