

1FID: 00311934  
VER DATE: 1994-11-04

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

DATE: 10/22/02  
TIME: 19:02:27  
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SECTION 01: CHEMICAL PRODUCT & COMPANY ID  
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PRODUCT PRIMARY NAME: BSL 712  
ALL SYNONYMS : BSL 712  
BSL 712 G (FORMER)  
BSL712G  
CUA4641  
DELCO R134A TRACER DYE  
R134A TRACER DYE  
12346287  
12346303  
15-120  
1608  
2983

MSDS SIGNED BY NAME: T.D. KALLEY

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

LAST UPDATED DATE: 2000-01-02

MANUFACTURER'S ID (MID): 000552116  
MANUFACTURER'S NAME: BRIGHT SOLUTIONS, INCORPORATED  
MANUFACTURER'S MAILING ADDRESS:

1738 MAPLELAWN DRIVE  
TROY MI 48084  
US

SECTION 1 - OTHER INFORMATION: MSDS PREPARED BY: CDB, INC.

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SECTION 02: COMPOSITION & INGREDIENT INFO  
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CAS#	FORMULATION	W/V	CHEMICAL NAME
009038953	R 40.0000/ 60.0000%	W	ALPHA-BUTOXY-OMEGA-HYDROXY ETHYLEN E OXIDE-PROPYLENE OXIDE COPOLYMER
989955186	R 36.0000/ 54.0000%	W	CYCLIC AMINES
989982320	R 4.0000/ 6.0000%	W	BRANCHED AMINES
989982321	R 1.0000/ 10.0000%	W	NAPHTHALIMIDE DYE

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SECTION 03: HAZARDS IDENTIFICATION  
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PRIMARY ENTRY ROUTE INDICATORS:

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

EFFECTS OF OVEREXPOSURE - SKIN: SIGNS AND SYMPTOMS OF EXPOSURE: NONE  
EXPECTED: HOWEVER, PROLONGED CONTACT MAY CAUSE IRRITATION.  
EFFECTS OF OVEREXPOSURE - EYE: SIGNS AND SYMPTOMS OF EXPOSURE: THIS  
PRODUCT IS AN EYE IRRITANT. CONTACT WITH THE EYES WILL CAUSE

IRRITATION.

EFFECTS OF OVEREXPOSURE - INHALATION: SIGNS AND SYMPTOMS OF EXPOSURE: NONE EXPECTED, HOWEVER, CERTAIN INDIVIDUALS MAY BE SENSITIZED AND EXPERIENCE MINOR NAUSEA OR HEADACHES. INHALATION OF AIRBORNE MIST COULD BE DAMAGING TO THE LUNGS.

EFFECTS OF OVEREXPOSURE - INGESTION: SIGNS AND SYMPTOMS OF EXPOSURE: MAY CAUSE GASTRIC DISTRESS, VOMITING AND DIARRHEA. ANY MATERIAL ASPIRATED DURING VOMITING MAY CAUSE INJURY TO THE LUNGS.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: PRE-EXISTING SKIN, EYE, OR RESPIRATORY DISORDERS MAY BECOME AGGRAVATED THROUGH PROLONGED EXPOSURE.

ADDITIONAL HEALTH HAZARD DATA: HEALTH HAZARDS ACUTE AND CHRONIC: ACUTE EFFECTS ARE POSSIBLE IRRITATION AND DISCOMFORT; NO KNOWN CHRONIC EFFECTS HAVE BEEN ESTABLISHED.

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SECTION 04: FIRST AID MEASURES

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EMERGENCY FIRST AID PROCEDURES - GENERAL: IN EMERGENCY SITUATIONS FURTHER INFORMATION MAY BE OBTAINED BY THE ON-DUTY PHYSICIAN CALLING THE EMERGENCY INFORMATION NUMBER: 1-800-255-3924. REFERENCE 29 CFR 1910.1200 AND/OR 40 CFR 350.

EMERGENCY FIRST AID PROCEDURES - SKIN: REMOVE CONTAMINATED CLOTHING; WASH AFFECTED AREA WITH SOAP AND WATER; LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE; IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

EMERGENCY FIRST AID PROCEDURES - EYES: FLUSH EYES WITH CLEAR RUNNING WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN; IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

EMERGENCY FIRST AID PROCEDURES - INHALATION: REMOVE AFFECTED PERSON TO FRESH AIR; IF SYMPTOMS PERSIST SEEK MEDICAL ATTENTION.

EMERGENCY FIRST AID PROCEDURES - INGESTION: GIVE TWO GLASSES OF WATER FOR DILUTION; DO NOT INDUCE VOMITING; SEEK IMMEDIATE MEDICAL ATTENTION; NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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SECTION 05: FIRE-FIGHTING MEASURES

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SPECIAL FIRE FIGHTING PROCEDURES: EXTINGUISHING MEDIA: CARBON DIOXIDE, WATER, WATER FOG, DRY CHEMICAL, CHEMICAL FOAM. SPECIAL FIRE FIGHTING PROCEDURES: SELF-CONTAINED RESPIRATORY EQUIPMENT; COOL CONTAINERS TO PREVENT PRESSURE BUILDUP AND POSSIBLE EXPLOSION WHEN EXPOSED TO EXTREME HEAT. CAUTION-MATERIAL IS COMBUSTIBLE!

UNUSUAL FIRE AND EXPLOSION HAZARDS: CLOSED CONTAINERS CAN EXPLODE DUE TO BUILDUP OF PRESSURE WHEN EXPOSED TO EXTREME HEAT.

HMIS CODES:

HMIS REACTIVITY CODE = 0

HMIS HEALTH CODE = 2

HMIS FLAMMABILITY CODE = 2

NFPA CODES:

NFPA FLAMMABILITY CODE = 2

NFPA HEALTH CODE = 2

NFPA REACTIVITY CODE = 0

FLASH POINT TEMPS: = 195.00F

SECTION 5 - OTHER INFORMATION: HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

IN CASE OF FIRE, OXIDES OF CARBON, HYDROCARBONS, FUMES AND SMOKE MAY BE PRODUCED. FLAMMABLE LIMITS: UPPER AND LOWER: NOT DETERMINED.

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SECTION 06: ACCIDENTAL RELEASE MEASURES

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SPILL OR LEAK PROCEDURES: COMBUSTIBLE!-EVACUATE AND VENTILATE AREA; REMOVE ALL SOURCES OF SPARKS, IGNITION AND OPEN FLAMES; CONFINE AND ABSORB INTO APPROVED ABSORBENT; PLACE MATERIAL INTO APPROVED CONTAINERS FOR DISPOSAL; DO NOT WASH TO SEWER OR WATERWAY.

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SECTION 07: HANDLING AND STORAGE

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: THIS MATERIAL IS COMBUSTIBLE. IT SHOULD BE STORED IN TIGHTLY CLOSED CONTAINERS IN A COLD, WELL VENTILATED AREA. VAPOR MAY FORM EXPLOSIVE MIXTURES IN AIR. ALL SOURCES OF IGNITION SHOULD BE CONTROLLED. KEEP THIS AND OTHER CHEMICALS OUT OF REACH OF CHILDREN. AVOID INHALING CONCENTRATED FUMES OR VAPORS.

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SECTION 08: EXPOSURE CONTROLS - PROTECTION

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EYE PROTECTION: SAFETY GOGGLES WITH SIDE SHIELDS.

RESPIRATORY PROTECTION: NONE REQUIRED; HOWEVER, IF MISTING OCCURS, NIOSH APPROVED RESPIRATOR CAPABLE OF REMOVING PARTICULATE FROM AIR MUST BE WORN. REFER TO 29 CFR 1910.134 FOR COMPLETE REGULATIONS.

ENGINEERING CONTROLS: LOCAL EXHAUST: NOT NECESSARY. MECHANICAL (GENERAL): RECOMMENDED. SPECIAL: NONE. OTHER: NONE. SAFETY EYEBATH NEARBY.

WORKPLACE/HYGIENIC PRACTICES: PRACTICE SAFE WORKPLACE HABITS. MINIMIZE BODY CONTACT WITH THIS, AS WELL AS ALL CHEMICALS IN GENERAL.

PROTECTIVE GLOVES (SPECIFY TYPE): RECOMMENDED FOR GENERAL PROTECTION. PLEASE CONTACT YOUR LOCAL HEALTH AND SAFETY REPRESENTATIVES FOR APPROPRIATE GLOVE TYPE FOR YOUR SPECIFIC USE.

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SECTION 09: PHYSICAL & CHEMICAL PROPERTIES

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BOILING POINT TEMPS: > 202.00C

SPECIFIC GRAVITY VALUES: = 1.0720  
SPECIFIC GRAVITY TEXT: (WATER=1).

VAPOR DENSITY VALUES: > 1.0000  
VAPOR DENSITY TEXT: (AIR=1).  
VAPOR PRESSURE TEXT: < 0.1 MM/HG AT 20 C

PERCENT VOLATILE BY WEIGHT TEXT: NONE.

EVAPORATION RATE VALUES: > 1.00  
EVAPORATION RATE TEXT: (WATER=1).

SOLUBILITY IN WATER TEXT: APPRECIABLE.

PH OF PRODUCT AS RECEIVED (NEAT)/TEXT: NOT AVAILABLE

APPEARANCE: LIGHT YELLOW, LIQUID

ODOR: CHARACTERISTIC ODOR.

PHYSICAL STATE: LIQ

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SECTION 10: STABILITY & REACTIVITY

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STABILITY INDICATOR: Y

STABILITY - TEXT: CONDITIONS TO AVOID: EXTREME TEMPERATURES, OPEN FLAMES. INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS, STRONG ACIDS.

HAZARDOUS DECOMPOSITION PRODUCTS: DECOMPOSITION WILL NOT OCCUR IF HANDLED AND STORED PROPERLY. IN CASE OF A FIRE, OXIDES OF CARBON, HYDROCARBONS, FUMES, AND SMOKE MAY BE PRODUCED.

HAZARDOUS POLYMERIZATION INDICATOR: N

HAZARDOUS POLYMERIZATION TEXT: WILL NOT OCCUR. CONDITIONS TO AVOID: NONE

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SECTION 11: TOXICOLOGICAL INFORMATION

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CARCINOGENICITY: NO ADDITIONAL INFORMATION. NTP: NO. IARC MONOGRAPHS: NO. OSHA REGULATED: NO.

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SECTION 13: DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. THIS PRODUCT MAY PRODUCE CONCENTRATED HAZARDOUS VAPORS OR FUMES IN A DISPOSAL CONTAINER CREATING A DANGEROUS ENVIRONMENT. REFER TO 40 CFR PROTECTION OF ENVIRONMENT PARTS 260-299, FOR COMPLETE WASTE DISPOSAL REGULATIONS FOR IGNITABLE MATERIALS. CONSULT YOUR LOCAL, STATE, OR FEDERAL ENVIRONMENTAL PROTECTION AGENCY BEFORE DISPOSING OF ANY CHEMICALS. DO NOT FLUSH TO SANITARY SEWER OR WATERWAY.

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SECTION 14: TRANSPORT INFORMATION

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SECTION 14 - OTHER INFORMATION: LABEL: NONE REQUIRED. PROPER SHIPPING NAME: LIMITED PACKAGING EXEMPTION. HAZARD CLASS/PKG GRP: EXEMPT. REF: 49 CFR 173.150, .203, .241. ID NUMBER: NONE.

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SECTION 15: REGULATORY INFORMATION

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SARA 311/312 HAZARD INDICATORS:

IMMEDIATE HEALTH INDICATOR = Y  
DELAYED HEALTH INDICATOR = N

SECTION 15 - OTHER INFORMATION: U.S. MANUFACTURES ARE REQUIRED TO BE TSCA COMPLIANT.

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#: 009038953 ALPHA-BUTOXY-OMEGA-HYDROXY ETHYLENE OXIDE-PROPYLENE OXI  
REG:  
0012

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
0057	EPA261.33(E)	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	0119	MANG. 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: 000550747 LAD - WILMINGTON ASSEMBLY  
CISCO: 18007;  
STATUS :ACTIVE

GMBA: 000550779 CLCD - ORION ASSEMBLY  
CISCO: 19017;  
STATUS :ACTIVE

GMBA: 000550842 DELPHI H - LOCKPORT  
CISCO: 37001;  
STATUS :ACTIVE

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

GMBA: 000550960 GM DESERT PROVING GROUND  
CISCO: 91008;  
STATUS :ACTIVE

GMBA: 000550964 GM TECHNICAL CENTER/ENGINEERING BUILDING  
CISCO: 94003;  
STATUS :ACTIVE

GMBA: 000550966 GM PROVING GROUND - MILFORD  
CISCO: 94017;  
STATUS :ACTIVE

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

GMBA: 000556298 GM TECHNICAL CENTER, TOTAL SITE  
STATUS :ACTIVE

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

GMBA: 000557022 AC DELCO  
CISCO: 99007;  
STATUS :ACTIVE

GMBA: 000557375 SPO - CONTRACT HOUSE  
CISCO: 99011;  
STATUS :ACTIVE