

Material Safety Data Sheet

24 Hour EMERGENCY ASSISTANCE			GENERAL MSDS ASSISTANCE
CHEMTREC: (800) 424-9300			B.D. CLASSIC (562) 944-6177
ACUTE HEALTH→2	FIRE→1	REACTIVITY→0	HAZARD RATING→ LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4
* For acute and chronic health effects refer to the discussion in Section III			

SECTION I	NAME
------------------	-------------

PRODUCT :LIQUID ILLUSION RESIN
CHEMICAL NAME :MODIFIED BISPHENOL A - EPICHLOROHYDRIN BASED EPOXY RESIN
CHEMICAL FAMILY :EPOXY RESIN

SECTION II-A	PRODUCT/INGREDIENT		
NO.	COMPOSITION	CAS NUMBER	PERCENT
1	BISPHENOL A/EPICHLOROHYDRIN RESIN	#25068-38-6	80%
2	ALKYL(C12-C14) GLYCIDYL ETHER	#68609-97-2	20%

COMPONENT 1 IS AN EPOXY RESIN PRODUCED BY THE CONDENSATION REACTION OF EPICHLOROHYDRIN AND BISPHENOL-A. THESE RAW MATERIALS ARE CONSUMED IN THE PROCESS. RESIDUAL LEVEL OF EPICHLORHYRIN ARE TYPICALLY 2-3 PPM IN THE PRODUCT.

SECTION II-B	ACUTE TOXICITY DATA		
NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		
1	11.4 G/KG (RAT)	>20 ML/KG (RABBIT)	NO DATA AVAILABLE
1	15.6 G/KG (MOUSE)		
2	10.0 G/KG (RAT)	2.0 G/KG (RAT)	NOT AVAILABLE

SECTION III	HEALTH INFORMATION
--------------------	---------------------------

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT

BASED ON PRESENCE OF COMPONENT 2, PRODUCT MAY BE MODERATELY IRRITATING TO THE EYES.

SKIN CONTACT

BASED ON PRESENCE OF COMPONENTS 1 AND 2, PRODUCT MAY BE MODERATELY IRRITATING TO THE SKIN; MAY CAUSE SKIN SENSITIZATION. BASED ON PRESENCE OF COMPONENT 2,

PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

INHALATION

BASED ON PRESENCE OF COMPONENT 2, PRODUCT MAY CAUSE IRRITATION TO THE NOSE, THROAT AND RESPIRATORY TRACT.

INGESTION

BASED ON PRESENCE OF COMPONENT 2, PRODUCT IS MODERATELY TOXIC AND MAY BE HARMFUL IF SWALLOWED.

SIGNS AND SYMPTOMS

IRRITATION AS NOTED ABOVE. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES.

AGGRAVATED MEDICAL CONDITIONS

PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. PREEXISTING SKIN OR LUNG ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS

SEE SECTION VI FOR SUPPLEMENTAL HEALTH INFORMATION.

SECTION IV

OCCUPATIONAL EXPOSURE LIMITS

NO.	PEL/TWA	OSHA		ACGIH		OTHER
		PEL/CEILING	TLV/TWA	TLV/STEL		
1	NONE ESTABLISHED					
2	NONE ESTABLISHED					

SECTION V

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT

REMOVE CONTAMINATED CLOTHING/SHOES AND WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

INHALATION

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

INGESTION

DO NOT GIVE LIQUIDS IF VICTIM IS UNCONSCIOUS OR VERY DROWSY. OTHERWISE, GIVE NO MORE THAN 2 GLASSES OF WATER AND INDUCE VOMITING BY GIVING 30CC (2 TABLESPOONS) SYRUP OF IPECAC.* IF IPECAC IS UNAVAILABLE, GIVE 2 GLASSES OF WATER AND INDUCE VOMITING BY TOUCHING FINGER TO BACK OF VICTIM'S THROAT. KEEP VICTIM'S HEAD BELOW HIPS WHILE VOMITING. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN

*IF VICTIM IS A CHILD, GIVE NO MORE THAN 1 GLASS OF WATER AND 15CC (1 TABLESPOON) SYRUP OF IPECAC. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE SHOULD BE CONSIDERED FOLLOWING INTUBATION WITH A CUFFED ENDOTRACHEAL TUBE.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

CHRONIC STUDIES: RECENT 2-YEAR BIOASSAY IN MICE EXPOSED BY THE DERMAL ROUTE TO A RESIN SIMILAR TO COMPONENT 1, THE DIGLYCIDYL ETHER OF BISPHENOL A (DGEBA), OR TO OTHER COMMERCIAL RESINS WHICH ARE COMPOSED PREDOMINATELY OF DGEBA HAVE YIELDED VERY LIMITED EVIDENCE OF WEAK CARCINOGENICITY. DGEBA IS A COMPONENT OF THIS RESIN. THE AUTHORS OF THIS WORK CONCLUDED THAT THE RENAL TUMOR EVIDENCE WITH LIQUID ILLUSION " WAS OF NO BIOLOGICAL SIGNIFICANCE" AND THAT THE RESIN "IS NOT A SYSTEMIC CARCINOGEN WHEN APPLIED TO THE DORSAL SKIN OF CF1 MICE." BASED UPON THIS AND ALL OTHER AVAILABLE INFORMATION, THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) CONCLUDED (1988) THAT DGEBA WAS NOT CLASSIFIABLE AS A CARCINOGEN (IARC GROUP 3)

MUTAGENICITY: BOTH LIQUID ILLUSION, A RESIN SIMILAR TO COMPONENT 1 AND DGEBA, A COMPONENT OF THIS PRODUCT, HAVE PROVED TO BE INACTIVE WHEN TESTED BY IN VIVO MUTAGENICITY ASSAYS. THEY HAVE BOTH SHOWN ACTIVITY BY IN VITRO MICROBIAL MUTAGENICITY SCREENING AND HAVE BOTH PRODUCED CHROMOSOMAL ABERRATIONS IN CULTURED RAT LIVER CELLS. THE SIGNIFICANCE OF THIS INFORMATION TO MAN IS UNKNOWN.

THIS PRODUCT CONTAINS TRACE 2-3 PPM, TYPICAL RESIDUAL QUANTITIES OF EPICHLOROHYDRIN (ECH). CAS NO. 106-89-8. IT IS VERY UNLIKELY THAT NORMAL WORK PRACTICES WITH THIS PRODUCT COULD RESULT IN MEASURABLE ECH CONCENTRATIONS IN THE WORKPLACE ATMOSPHERE. NEVERTHELESS, YOU SHOULD BE AWARE THAT ECH HAS BEEN REPORTED TO PRODUCE CANCER IN LABORATORY ANIMALS AND TO PRODUCE MUTAGENIC CHANGES IN BACTERIA AND CULTURED HUMAN CELLS. IT HAS BEEN CLASSIFIED BY THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AS A PROBABLE HUMAN CARCINOGEN (IARC GROUP 2A) BASED ON THE FOLLOWING CONCLUSIONS: HUMAN EVIDENCE - INADEQUATE; ANIMAL EVIDENCE - SUFFICIENT. IT HAS BEEN CLASSIFIED AS AN ANTICIPATED HUMAN CARCINOGEN BY THE NATIONAL TOXICOLOGY PROGRAM (NTP).

SECTION VII PHYSICAL DATA

BOILING POINT: NOT AVAILABLE (DEG F) SPECIFIC GRAVITY: 1.1 (H2O=1) VAPOR PRESSURE: _1 (MM HG)

MELTING POINT: NOT AVAILABLE (DEG F) SOLUBILITY: SLIGHT (IN WATER) VAPOR DENSITY: _1 (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): NOT AVAILABLE

APPEARANCE AND ODOR: LIGHT YELLOW LIQUID

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
_200 DEG. F (SETAFLASH)

FLAMMABLE LIMITS / % VOLUME IN AIR
LOWER: N/AV UPPER: N/AV

EXTINGUISHING MEDIA

USE WATER FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS

NO UNUSUAL HAZARDS.

SECTION IX

REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:

AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS. CAN REACT VIGOROUSLY WITH STRONG LEWIS OR MINERAL ACIDS AND STRONG MINERAL AND ORGANIC BASES/ESPECIALLY PRIMARY AND SECONDARY ALIPHATIC AMINES. REACTION WITH SOME CURING AGENTS MAY PRODUCE CONSIDERABLE HEAT.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON MONOXIDE, ALDEHYDES AND ACIDS MAY BE FORMED DURING COMBUSTION.

SECTION X

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

AVOID BREATHING VAPOR OR MISTS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING

AVOID CONTACT WITH EYES. WEAR CHEMICAL GOGGLES IF THERE IS LIKELIHOOD OF CONTACT WITH EYES. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ADDITIONAL PROTECTIVE MEASURES

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR EMERGENCY USE.

SECTION XI

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGEMENT WHEN CLEANING UP LARGE SPILLS. *****LARGE SPILLS***** WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. *****SMALL SPILLS***** TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY.

SECTION XII SPECIAL PRECAUTIONS

STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES. HANDLE IN ACCORDANCE WITH THE POTENTIAL HAZARD OF THE CURING AGENT USED.

WARNING. POTENTIAL SENSITIZER. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES. MINIMIZE ALL CONTACT WITH MATERIAL. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

HEATING THIS RESIN ABOVE 300 DEG F IN THE PRESENCE OF AIR MAY CAUSE SLOW OXIDATIVE DECOMPOSITION ABOVE 500 DEG F, POLYMERIZATION MAY OCCUR. SOME CURING AGENTS, E.G., ALIPHATIC POLYAMINES CAN PRODUCE EXOTHERMIC REACTIONS WHICH IN LARGE MASSES CAN CAUSE RUNAWAY POLYMERIZATION AND CHARRING OF THE REACTANTS. FUMES AND VAPORS FROM THESE THERMAL AND CHEMICAL DECOMPOSITIONS VARY WIDELY IN COMPOSITION AND TOXICITY. DO NOT BREATHE FUMES.

USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE. IN ACCORD WITH 20 CFR 1910.134, USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS. IF THIS RESIN IS HANDLED, SHIPPED, OR STORED IN BULK, THE RECOMMENDED PUMPING TEMPERATURE IS 180 DEG F, MAX. TO PREVENT THERMAL BURNS. AVOID SKIN AND EYE CONTACT WITH HOT LIQUID.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION
NOT HAZARDOUS BY D.O.T. REGULATIONS

D.O.T PROPER SHIPPING NAME:
NOT REGULATED

OTHER REQUIREMENTS:
NONE

SECTION XIV OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES: OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	PERCENT	STATE CODE
EPICHLOROHYDRIN (CAS NO: 106-89-8)	2 PPM	MA, CA65C

CA = CALIFORNIA HAZ. SUBS. LIST: CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT = CONNECTICUT TOXIC SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

CALIFORNIA PROPOSITION 65 FOOTNOTE: CA65C = THE CHEMICAL IDENTIFIED WITH THIS CODE IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. CA65R = THE CHEMICAL IDENTIFIED WITH THIS CODE IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. CA65C/R = THE CHEMICAL IDENTIFIED WITH THIS CODE IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BOTH CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

SECTION XVI	SPECIAL NOTES
--------------------	----------------------

THIS MSDS REVISION HAS CHANGES IN SECTION XV - STATE REGULATORY INFORMATION.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, B D CLASSIC MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. B D CLASSIC ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

BE SAFE
 READ OUR PRODUCT SAFETY INFORMATION...AND PASS IT ON
 (PRODUCT LIABILITY REQUIRES IT)

ENVIRONMENTAL DATA SHEET

PRODUCT: LIQUID ILLUSION			
SECTION I		PRODUCT/COMPOSITION	
NO.	COMPONENT	CAS NUMBER	PERCENT

P	LIQUID ILLUSION	MIXTURE	100%
1	BISPHENOL A/EPICHLOROHYDRIN RESIN	025085-99-8	75-80%
2	ALKYL(C12-C14) GLYCIDYL ETHER	68609-97-2	20%
3	EPICHLOROHYDRIN		2 PPM

COMPONENT 1 IS AN EPOXY RESIN PRODUCED BY THE CONDENSATION REACTION OF EPICHLOROHYDRIN AND BISPHENOL -A. THESE RAW MATERIALS ARE CONSUMED IN THE PROCESS. RESIDUAL LEVELS OF EPICHLOROHYDRIN ARE TYPICALLY 2-3 PPM IN THE PRODUCT.

SECTION II		SARA TITLE III INFORMATION				
NO.	EHS RQ (LBS) (*1)	EHS TPQ (LBS) (*2)	SEC 313 (*3)	313 CATEGORY (*4)	311/312 CATEGORIES (*5)	

P					H-1
3	1000	1000	YES		

-----FOOTNOTES-----

- *1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302.
 - *2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC. 302
 - *3 = TOXIC CHEMICAL, SEC. 313
 - *4 = CATEGORY AS REQUIRED BY SEC. 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM
 - *5 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING
- HEALTH H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD
 H-2 = DELAYED (CHRONIC) HEALTH HAZARD
- PHYSICAL P-3 = FIRE HAZARD
 P-4 = SUDDEN RELEASE OF PRESSURE HAZARD
 P-5 = REACTIVE HAZARD

SECTION III	ENVIRONMENTAL RELEASE INFORMATION
-------------	-----------------------------------

NOTIFY AUTHORITIES IF ANY EXPOSURE TO THE GENERAL PUBLIC OR ENVIRONMENT OCCURS OR IS LIKELY TO OCCUR.

THE REPORTABLE QUANTITY (RQ) FOR A RELEASE OF THIS PRODUCT IS 50,000,000 LBS., WHICH IS BASED ON THE PRESENCE OF COMPONENT #3.

SECTION IV	RCRA INFORMATION
------------	------------------

PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, B.D. CLASSIC MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. B.D. CLASSIC ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

-DATE PREPARED 01/05/99

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION...AND PASS IT ON
(PRODUCT LIABILITY REQUIRES IT)