

MATERIAL SAFETY DATA SHEET

MSDS: 2556-3 07/01/05

EPON(TM) RESIN 9504

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC - Domestic: (800) 424-9300

CHEMTREC - International: (703) 527-3887

GENERAL MSDS ASSISTANCE

HEXION: 832-486-6700

COMPANY NAME AND ADDRESS

HEXION SPECIALTY CHEMICALS, INC.

PRODUCT SAFETY & COMPLIANCE

P.O. BOX 4500

HOUSTON, TX 77210 USA

SECTION I NAME

PRODUCT: EPON(TM) RESIN 9504

CHEM NAME: NOT APPLICABLE

CHEM FAMILY: EPOXY RESIN MIXTURE

CODE: L6153

HEALTH HAZARD: 2 FIRE HAZARD: 1 REACTIVITY: 0

SECTION II-A INGREDIENTS

<u>NO.</u>	<u>COMPOSITION</u>	<u>CAS NO.</u>	<u>PERCENT</u>
P	EPON RESIN 9504	MIXTURE	100
1	BASE EPOXY RESIN	*	*
2	DILUENT	*	*

* THE SPECIFIC CHEMICAL IDENTITY AND PROPORTION OF THIS COMPONENT IS CONSIDERED TRADE SECRET INFORMATION.

SECTION II-B ACUTE TOXICITY DATA

<u>NO.</u>	<u>ACUTE ORAL LD50</u>	<u>ACUTE DERMAL LD50</u>	<u>ACUTE INHALATION LD50</u>
P	NO DATA AVAILABLE	NO DATA AVAILABLE	NO DATA AVAILABLE
1*	11.4 G/KG (RAT)	>20 ML/KG (RABBIT)	NO DATA AVAILALBE
1*	15.6 G/KG (MOUSE)		
2	4.5 G/KG (RAT)	>2.0 G/KG (RAT)	NO DATA AVAILABLE

* DATA FOR EPON RESIN 828, A RESIN SIMILAR TO COMPONENT 1.

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:

PRODUCT IS MODERATELY IRRITATING TO THE EYES.

SKIN CONTACT:

PRODUCT MAY BE IRRITATING TO THE SKIN. PRODUCT MAY CAUSE SKIN SENSITIZATION. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

INHALATION:

PRODUCT MAY CAUSE IRRITATION TO THE NOSE, THROAT AND RESPIRATORY TRACT. HOWEVER, BECAUSE OF ITS LOW VOLATILITY, RESPIRATORY IRRITATION IS NOT LIKELY UNLESS THE MATERIAL IS HEATED OR MISTS ARE FORMED. MISTS AND VAPORS (HIGH TEMPERATURES) MAY CAUSE CNS (CENTRAL NERVOUS SYSTEM) EFFECTS.

INGESTION:

NOT EXPECTED TO BE A RELEVANT ROUTE OF EXPOSURE. PRODUCT MAY BE SLIGHTLY TOXIC IF SWALLOWED.

SIGNS AND SYMPTOMS:

IRRITATION AS NOTED ABOVE. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONSCIOUSNESS, RESPIRATORY DEPRESSION AND DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS:

PREEXISTING EYE, SKIN, AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS:

COMPONENT 2 WAS FOUND TO BE CARCINOGENIC IN SKIN PAINTING STUDIES IN MICE. IT HAS ALSO BEEN REPORTED TO BE POSITIVE IN SOME MUTAGENICITY ASSAYS. SEE SECTION VI FOR SUPPLEMENTAL HEALTH INFORMATION.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

COMP NO.	OSHA	ACGIH	OTHER
	PEL/TWA		
P	NONE ESTABLISHED		
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 INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN:

IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUPPED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

COMPONENT: CHRONIC STUDIES: RECENT 2-YEAR BIOASSAYS IN MICE EXPOSED BY THE DERMAL ROUTE TO EPON RESIN 828, A RESIN SIMILAR TO COMPONENT 1, THE DIGLYCIDYL ETHER OF BISPHENOL A (DGEBA), OR TO OTHER COMMERCIAL RESINS WHICH ARE COMPOSED PREDOMINANTLY 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 EPON RESIN 828 "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) BASED ON THE FOLLOWING: HUMAN EVIDENCE - INADEQUATE; ANIMAL EVIDENCE - INADEQUATE.

MUTAGENICITY: BOTH EPON RESIN 828 (A RESIN SIMILAR TO COMPONENT 1) AND DGEBA, ITS MAJOR CONSTITUENT, HAVE PROVED TO BE INACTIVE WHEN TESTED BY IN VIVO MUTAGENICITY ASSAYS. THEY HAVE BOTH SHOWN ACTIVITY IN VITRO MICROBIAL MUTAGENICITY SCREENING TESTS AND HAVE PRODUCED CHROMOSOMAL ABERRATIONS IN CULTURED RAT LIVER CELLS. THE SIGNIFICANCE OF THIS INFORMATION TO MAN IS UNKNOWN.

NOTE: THIS PRODUCT CONTAINS TRACE (<10 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).

COMPONENT 2: COMPONENT 2 HAS BEEN REPORTED TO PRODUCE POSITIVE EFFECTS WHEN TESTED BY IN VITRO MUTAGENICITY TESTS.

SECTION VII PHYSICAL DATA

BOILING POINT (DEG F):	SPECIFIC GRAVITY (H2O = 1):	VAPOR PRESSURE (MM HG):
>300	1.13	<1

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

EVAPORATION RATE (NORMAL 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/PERCENT 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, BUNKERCOATS, 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:
NONE KNOWN.

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, ACIDS, AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE GENERATED ON THERMAL OR OXIDATIVE DECOMPOSITION AND ON COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION:
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE EITHER A FULL-FACE, ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER

PROTECTIVE CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ADDITIONAL PROTECTIVE MEASURES:

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

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES:

MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT 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. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES.

WARNING! SENSITIZER. MAY CAUSE SKIN AND EYE IRRITATION. POSSIBLE CANCER HAZARD. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES. 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.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:

NOT HAZARDOUS BY D.O.T. REGULATIONS

DOT PROPER SHIPPING NAME:

NONE

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 ATTACHED 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.

<u>STATE LISTED COMPONENT</u>	<u>CAS NO.</u>	<u>PERCENT</u>	<u>STATE CODE</u>
EPICHLOROHYDRIN	106-89-8	<10 PPM	MA, CA65C/R

CA = CALIFORNIA HAZ. SUBST. LIST; CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT = CONNECTICUT TOX. 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

NOTE: MSDS GENERAL ASSISTANCE NUMBER HAS CHANGED.
THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, HEXION SPECIALTY CHEMICALS, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. HEXION SPECIALTY CHEMICALS, INC. ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

WE ARE PROVIDING OUR MOST RECENT MATERIAL SAFETY DATA SHEET AND/OR ENVIRONMENTAL DATA SHEET. IF YOU WISH TO RECEIVE UPDATES TO THIS INFORMATION, PLEASE CALL HEXION SPECIALTY CHEMICALS, INC. GENERAL MSDS ASSISTANCE LINE (832-486-6700) TO ENSURE THAT YOU ARE ADDED TO HEXION SPECIALTY CHEMICALS, INC. REGULAR MSDS DISTRIBUTION SYSTEM.

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

HEXION SPECIALTY CHEMICALS, INC.
PRODUCT SAFETY AND COMPLIANCE
P.O. BOX 4500
HOUSTON, TX 77210 USA

ENVIRONMENTAL DATA SHEET

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COMPANY NAME AND ADDRESS

HEXION SPECIALTY CHEMICALS, INC.
 PRODUCT SAFETY & COMPLIANCE
 P.O. BOX 4500
 HOUSTON, TX 77210 USA

PRODUCT CODE: L6153

SECTION I PRODUCT COMPOSITION

NO.	COMPOSITION	CAS	PERCENT
P	EPON RESIN 9504	MIXTURE	100
1	BASE EPOXY RESIN	*	*
2	DILUENT	*	*

* THE SPECIFIC CHEMICAL IDENTITY AND PROPORTION OF THIS COMPONENT IS CONSIDERED TRADE SECRET INFORMATION.

SECTION II SARA TITLE III INFORMATION

NO.	EHS RQ	EHS TPQ	SEC-313	313 CATEGORY	311/312 CATEGORY
	(*1)	(*2)	(*3)	(*4)	(*5)

P H-1, H-2

- *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 = CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)
 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

KEEP OUT OF SURFACE WATERS, SEWERS, AND WATERWAYS ENTERING OR LEADING TO SURFACE WATERS. NOTIFY AUTHORITIES IF ANY EXPOSURE TO THE GENERAL PUBLIC OR ENVIRONMENT OCCURS OR IS LIKELY TO OCCUR.

SECTION IV **RCRA INFORMATION**

IF THIS PRODUCT BECOMES A WASTE, IT WOULD NOT BE A HAZARDOUS WASTE BY RCRA CRITERIA (40 CFR 261). PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS.
