

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: KEY #620 NOVOLAC ESD EPOXY PART A
PRODUCT CODE: KR-620-000

HMIS CODES: H F R P
1 1 0 B

SECTION 1: MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: KEY RESIN COMPANY
ADDRESS: 4050 Clough Woods Drive
Batavia, OH 45103
EMERGENCY NUMBER: 1-800-424-9300 **DATE PRINTED:** 11/10/10
INFORMATION NUMBER: 1-513-943-4225 **PREPARER:** R. CAIN

SECTION 2: HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	CAS NUMBER	OSHA PEL	ACGIH		CARCINOGEN
			TLV	WT %	
Bisphenol F Epoxy Resin	28064-14-4	NE	NE	40-60	NO
Benzyl Alcohol	100-51-6	NE	NE	1-10	NO
Alkyl Phenol	84852-15-3	NE	NE	5-10	NO
Hexylene Glycol	107-41-5	NE	NE	10-15	NO
Antimony/Tin Oxide	Blend	NE	NE	15-25	NO

Depending on color, one or more of the following may be present:

Titanium Dioxide	13463-67-7		10 mg/m ³	1-5	NO
Black Iron Oxide	1317-61-9	10 ppm	10 mg/m ³	<1	NO
Red Iron Oxide	1332-37-2	10 ppm	10 mg/m ³	1-5	NO
Yellow Iron Oxide	51274-00-1	10 ppm	5 mg/m ³	<1	NO
Chromium Oxide	1308-38-9	.5 mg/m ³	.5 mg/m ³	<1	

The exposure limits shown above for pigments are for dust exposure. They are not known to be hazardous after blended into a liquid. Wet sanding is suggested to eliminate airborne dust, if product is machined or ground. The only other exposure limits established for ingredients of this product apply to nuisance dusts from inert fillers. These fillers are blended into a liquid and pose no hazard as supplied.

Substances listed are present in concentration of 1% or greater, or 0.1% if cited as a potential Carcinogen in the OSHA hazards communication standard. Where proprietary ingredient is listed, the identity is available as provided in 29 CFR 1910.1200.

NE - Not Established

SECTION 3: PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE	Not determined
VAPOR DENSITY	Not determined
VAPOR PRESSURE	1 mm Hg @ 200° F
VOC	0.00
SOLUBILITY IN WATER	NIL
APPEARANCE AND ODOR	Moderately viscous pigmented liquid with a mild odor
SPECIFIC GRAVITY (H2O=1)	1.31

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >200° F
METHOD USED: Closed Cup
FLAMMABLE LIMITS IN AIR BY VOLUME **LOWER:** Not determined
UPPER: Not determined
EXTINGUISHING MEDIA: Foam, dry chemical CO 2
OSHA FLAMMABILITY CLASSIFICATION: Combustible liquid, Class III A

SECTION 4: FIRE AND EXPLOSION HAZARD DATA (CON'T)

SPECIAL FIRE FIGHTING PROCEDURES: Decomposition and/or products of combustion may be toxic. Use self contained breathing equipment.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposition and combustion products may be toxic.

SECTION 5: REACTIVITY DATA

STABILITY: Normally Stable

CONDITIONS TO AVOID: Elevated temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with strong oxidizing agents, strong acids, strong bases. Mixing large quantities (1 gallon) with amines or epoxy hardeners can cause heat build-up and hazardous reaction.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon Monoxide, Carbon Dioxide, Phenolic Derivatives.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 6: HEALTH HAZARD DATA

HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

INHALATION: Exposure to vapors at elevated temperatures may cause irritation to respiratory tract and difficulty breathing.

EYE: May cause irritation to the eyes.

SKIN: A single exposure to the skin is unlikely to result in harm.

SKIN ABSORPTION: Repeated exposure to the skin can cause sensitization.

INGESTION: Oral toxicity is low. No hazards expected from normal industrial exposure.

HEALTH HAZARDS (ACUTE AND CHRONIC):

CARCINOGENICITY:

NTP CARCINOGEN: NO **IARC MONOGRAPHS:** NO **OSHA REGULATED:** NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Allergy, Eczema, or skin conditions.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush at once with potable water for at least 15 minutes.

SKIN: Wash with soap and warm water. Remove contaminated clothes. Wash before reuse. Destroy contaminated shoes.

INGESTION: Not likely to occur in normal handling. Give large quantities of water and get medical attention.

INHALATION: Remove to fresh air. Administer oxygen if breathing is difficult.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid contact. Soak up with clay or other absorbent material. Place in covered container for disposal.

WASTE DISPOSAL METHOD: Dispose in an approved incinerator or an approved landfill.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid contact.

OTHER PRECAUTIONS: Keep containers tightly closed when not in use. If mixture of A and B are allowed to remain in the mixing vessel past the pot life deadline, heat and a strong reaction will result. Grinding or other abrasive action to cured film may develop Micro crystalline Silica dust. Wear a dust mask during such operations.

SECTION 8: CONTROL MEASURES

RESPIRATORY PROTECTION: Avoid breathing vapor mist or spray.

VENTILATION: Use with good ventilation.

PROTECTIVE GLOVES: Wear impervious gloves.

EYE PROTECTION: Wear splash-proof chemical goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Provide eye fountain and safety shower.

WORK/HYGIENIC PRACTICES: Practice good industrial hygiene. Wash with soap and water before eating, smoking, or using the restroom.

SECTION 9: REGULATORY INFORMATION

SARA TITLE III SECTION 313: Unless shown below, this product does not contain the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

CAS #	Chemical Name	Percent by Weight
1308-38-9	Chromium compound	<1%(not in all formulations)

PROP 65 (CARCINOGEN): Unless shown below, this product does not contain chemicals known to the state of California to cause cancer.

CAS #	Chemical Name	Percent by Weight
	None	

PROP 65 (TERATOGENIC): Unless shown below, this product does not contain chemicals known to the state of California to cause birth defects or other reproductive harm.

CAS #	Chemical Name	Percent by Weight
	None	

PROP 65 (CARCINOGENIC & TERATOGENIC): Unless shown below, this product does not contain chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

CAS #	Chemical Name	Percent by Weight
	None	

HAZARDOUS WASTE INFORMATION: Unless shown below, this product is not a hazardous waste according to definitions found in CFR-40.

STATE OF MICHIGAN CRITICAL MATERIALS: Unless shown below, this product does not contain ingredients appearing on the State of Michigan Critical Materials List.

CAS #	Chemical Name	Percent by Weight
	None	

D.O.T. PROPER SHIPPING NAME: Synthetic Resin Liquid

PROPER SHIPPING NAME: Synthetic Resin Liquid

HAZARD CLASS: non-hazardous

UN/NA ID NUMBER:

SECTION 10: DISCLAIMER

Data and recommendations presented herein are based upon our and other researchers and are believed to be accurate. The products discussed are distributed without warranty (expressed or implied) and the customer shall make his own determination of suitability for his particular purpose.