MATERIAL SAFETY DATA SHEET
KEY #110 CASTING RESIN PART B

PRODUCT NAME: KEY #110 CASTING RESIN PART B
PRODUCT CODE:

HMIS CODES: H F R P
3 1 0 C

SECTION 1: MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: KEY RESIN COMPANY
ADDRESS: 4050 Clough Woods Drive
Batavia, OH 45103
EMERGENCY NUMBER: 1-800-424-9300
INFORMATION NUMBER: 1-513-943-4225
DATE PRINTED: 09/04/09
NAME OF PREPARER: K. STRAWSER

SECTION 2: HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OSHA PEL	ACGIH TLV	WT %	CARCINOGEN
Bezyl Alcohol	100-51-6	NE		>40%	
Isophorne diamine	2855-13-2	NE		<40%	

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 provided in 29 CFR 1910.1200.

NE - Not Established

SECTION 3: PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE	: NE
VAPOR DENSITY	: NE
VAPOR PRESSURE	: NE
FREEZING/MELTING POINT	: NE
VOC	: -0-
SOLUBILITY IN WATER	: Slight; <1% @ 20C (70F)
APPEARANCE	: amber liquid.
ODOR	: Ammonia
SPECIFIC GRAVITY (H20=1)	: 1.01 @ 21C (70F)
EVAPORATION RATE	: NE
VISCOSITY (cps)	: 100 @ 25C (77F)
MOLECULAR WEIGHT	: Mixture

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Approx. 203º F
METHOD USED: Closed Cup
FLAMMABLE LIMITS IN AIR BY VOLUME - **LOWER:** Not determined.
UPPER: Not determined.
EXTINGUISHING MEDIA: Foam, dry chemical, CO2, water spray
OSHA FLAMMABILITY CLASSIFICATION: Combustible liquid, Class III B
SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved self-contained breathing apparatus with independent air supply. Keep containers cool with water spray. Avoid skin contact. Contain runoff water in dikes. Prevent stream contamination. Remain expended liquids from fire fighting for later disposal. Firefighters should wear butyl rubber boots, gloves, and body suit and self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS: May generate toxic or irritating combustio9n products. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. Vapors may travel along ground to a source of ignition and flash back. Vapors may collect in closed spaces such as sewers, caves, or closed structures. Sudden reaction and fire may result if product is mixed with an oxidizing agent.

SECTION 5: REACTIVITY DATA

STABILITY: Stable.
CONDITIONS TO AVOID: Not applicable
INCOMPATIBILITY (MATERIALS TO AVOID): Oxidizing agents (i.e. perchlorates, nitrates)
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon monoxde in a fire. Carbon Dioxide in a fire. Nitrogen oxides in a fire. Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV=2ppm). Combustion of product under oxygen-starved conditions can be expected to produce numerous toxic products including: nitriles, amides. Irritating and toxic fumes at elevated temperatures.
HAZARDOUS POLYMERIZATION: will not occur.

SECTION 6: HEALTH HAZARD DATA

HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

EYES: May cause moderate eye irritation.
SKIN: May cause moderate skin irritation.
INHALATION: May cause moderate respriatory irritation.

HEALTH HAZARDS:

ACUTE: Contact with the skin or eys may cause irritation, redness, and discomfort which is transient. Inhalation of vapors causes irritation of the respriatory tract and may cause adverse systemic effects. Risk of exposure to hazardous concentrations of vapor under normal working conditions in a well ventilated space is minimal. However, conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided. Ingestion may cause headache, nausea, vomiting, death unless treated promptly. Product vapor in low concentrations can cause lacrimation, conjunctivitis, and crneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. The effect is transient and has no known residual effect.

CHRONIC: Repeated and/or long term contact with the skin may cause primary skin irritation and dermitis. Repeated and/or prolonged exposure to low concentrations of vapor may casue sore throat, eye irritation. Repeated and/or long prolonged exposures may result in liver disorders (such as jaundice or liver enlargement), kidney disorders (such as edema, or proteinurial), adverse respiratory effects (such as cough, tightness of chest or shortness of breath), adverse skin effects (such as defatting, rash, irritation, or corrosion), adverse eye effcts (such as conjuntivitis or corneal damage).

CARCINOGENICITY:

NTP CARCINOGEN: **IARC MONOGRAPHS:** **OSHA REGULATED:**

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Asthma; Chronic respiratory disease (e.g. Bronchitis, Emphysema); Eye disease; Skin disorders and Allergies; Liver disorders.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush immediately for 15 minutes with large amounts of potable water. Get immediate medical attention.
SKIN: Flush immediately for 15 minutes with potable water. Except in the most minor, superficial and localized burns, cover the affected area with a sterile dressing or clean sheeting and transport for midical care. DO NOT APPLY GREASES OR OINTMENTS. Control shock, if present. Remove contaminated clothing. Launder before reuse. Discard contaminated shoes. Get medical attention if swelling and/or irritation occurs.
INGESTION: DO NOT induce vomiting. Give milk or water to dilute stomach contents. Get immediate medical attention. Note to physicians: This product is highly injurous to all tissues, similar to that of ammonia or ammonia gas. Chemical pneumoitis, pulmonary edema, laryngeal edema and delayed scarring of the airway or other affected tissues may occur following exposure. There is no specific treatment. Clinical management is based on supportive treatment, which is similar to that for thermal burns.
INHALATION: Remove to fresh air. I breathing has stopped or is labored give assisted respiration. Supplemental oxygen may be indicated. Prevent aspiration of vomit. Turn victim's head to the side. Assure mucus does not obstruct airway. Get medical attention if effects persist.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Stop the leak, if possible. Ventilate the space involved. Reduce vapor spreading with a water spray. Shut off or remove all ignition sources. Construct a dike to prevent spreading. If recovery is feasible, admix with dry soil, sand, or non-reactive absorbent and place in a container or dumpster pending disposal. Flush area with water spray. Clean-up personnel must be equipped with self-contained breathing apparatus and butryl rubber protective clothing.

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

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid contact. Keep containers tightly closed when not in use. Do not remove labels from empty containers. If mixtures of Part B and Part A are allowed to remain in the mixing container past the pot life deadline, heat and a strong reaction will result.

OTHER PRECAUTIONS:

SECTION 8: CONTROL MEASURES

RESPIRATORY PROTECTION: Not required under normal conditions. In poorly ventilated areas, a cartridge mask NIOSH approved fro organic vapors is recommeded. For emergency situations, use self-contained breathing apparatus with pressure demand mode.

VENTILATION: Mechanical ventilation required if TLV is expected to be exceeded in confined areas.

PROTECTIVE GLOVES: Nitrile rubber gloves. In emergency situations, wear impermeable gloves with cuffs to prevent spread of material to area above wrists.

EYE PROTECTION: Chemical safety glasses. Splash-proof eye goggles. In emergency situations, use eye goggles with full face shield. Contact lenses should not be worn.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Body covering clothes

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

SECTION 9: REGULATORY INFORMATION

D. O. T. PROPER SHIPPING NAME: UN 2289, Isophoronediamine, Class 8, PG III
PROPER SHIPPING NAME: Isophoronediamine
HAZARD CLASS: Class 8, Corrosive
UN/NA ID NUMBER: UN 2289
PACKING GROUP: III

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.