

MATERIAL SAFETY DATA SHEET

KEY #446 URETHANE SEALER PART A

PRODUCT NAME: KEY #446 URETHANE SEALER PART A
F R P

HMIS CODES: H

1 0 0

PRODUCT CODE: KEY-446-000

SECTION 1: MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: KEY RESIN COMPANY
ADDRESS: 4061 Clough Woods Drive
Batavia, OH 45103

EMERGENCY NUMBER: 1-800-424-9300
INFORMATION NUMBER: 1-513-943-4225

DATE PRINTED: 08/23/06
NAME OF PREPARER: R. CAIN

SECTION 2: HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OSHA PEL	WT%	TLV TWA	TLV STEL
None	N/A	NE	NE	NE	NE

This product contains no hazardous ingredients as defined under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

NE - Not Established

SECTION 3: PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE	: 212°F
VAPOR DENSITY (Air = 1.0)	: .569 air
VAPOR PRESSURE	: 29.33 mm Hg @ 68°F
SOLUBILITY IN WATER	: Dispersible
APPEARANCE AND ODOR	: Slight ammonia odor
SPECIFIC GRAVITY (H2O=1)	: 1.05
EVAPORATION RATE (Butyl Acetate = 1)	: .38 (Butyl acetate=1)

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >250° F

METHOD USED: Setaflash

FLAMMABLE LIMITS IN AIR BY VOLUME - LOWER: 25.00

UPPER: 16.00

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam and/or Water Fog.

OSHA FLAMMABILITY CLASSIFICATION:

SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters must wear self contained breathing apparatus or air masks. Containers exposed to fire should be kept cool with water spray. Do not spray fire directly. A solid stream of water directed into the hot burning liquid could cause frothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION 5: REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: None

INCOMPATIBILITY (MATERIALS TO AVOID): None

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: By fire: CO₂, CO, and other aliphatic fragments.

HAZARDOUS POLYMERIZATION: None

SECTION 6: HEALTH HAZARD DATA

HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

INHALATION: Harmful if inhaled. May affect the brain, nervous system or respiratory system causing dizziness, headache, nausea or respiratory irritation.

SKIN: May cause irritation.

EYE: May cause irritation.

SKIN ABSORPTION: Can be absorbed through the skin.

INGESTION:

HEALTH HAZARDS (ACUTE AND CHRONIC): Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Contains ingredients which may cause liver damage, kidney damage, mucous membrane irritation.

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

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Proposition 54 Statement:
Warning! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Medical conditions generally aggravated by exposure - any respiratory or skin condition.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention.

SKIN: Wash thoroughly with soap and water.

INGESTION: If swallowed, get medical attention immediately.

INHALATION: If affected by inhalation of vapor or spray mist, remove to fresh air.

POSSIBLE ROUTES OF ENTRY: Inhalation, ingestion and skin absorption.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Ventilate area. Avoid breathing of vapors. Use self-contained breathing apparatus or air mask for large spills in a confined area. Eliminate ignition sources. Remove with inert absorbent and non-sparking tools. Avoid contact with eyes.

WASTE DISPOSAL METHOD: Dispose in chemical disposal area or in a manner that complies with local, state, and federal regulations. Do not incinerate closed containers.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Containers should be grounded/bonded when pouring. Avoid free fall of liquid in excess of a few inches. Keep away from heat, sparks and open flames. Keep containers closed when not in use. Do not store above 120 deg. F. Based on the product flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture, or weld on or near container. All label warnings must be observed until the container has been cleaned or reconditioned.

OTHER PRECAUTIONS:

SECTION 8: CONTROL MEASURES

RESPIRATORY PROTECTION: Wear appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use.

VENTILATION: Required for handling in a confined area, ventilation equipment should be explosion proof. Eliminate ignition sources.

PROTECTIVE GLOVES: Usual hand protection for handling resin products.

EYE PROTECTION: A minimum of safety glasses with side shields for handling Resin materials.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Usual clothing for handling Resin products.

WORK/HYGIENIC PRACTICES:

SECTION 9: REGULATORY INFORMATION

D. O. T. PROPER SHIPPING NAME: Polyester Resin Dispersion

PROPER SHIPPING NAME: Synthetic Resin Liquid

HAZARD CLASS:

UN/NA ID NUMBER:

PACKING GROUP

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.

MATERIAL SAFETY DATA SHEET KEY RESIN #446 URETHANE SEALER PART B

PRODUCT NAME: KEY #446 URETHANE SEALER PART B
F R P

HMIS CODES: H

PRODUCT CODE: KEY-446-RCB
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SECTION 2: HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OSHA PEL	ACGIH TLV	WT %	VAPOR PRESS.
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Aliphatic Polyisocyanates	Trade Secret	NE	NE	12-25	NE
Hexamethylene Diisocyanate	822-06-0	NE	.005 ppm		NE
			<0.2		
HDI based Polyisocyanate	Trade Secret	NE	NE	75-85	NE

SECTION 3: PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE	: NE
VAPOR DENSITY	: NE
SOLUBILITY IN WATER	: No
APPEARANCE AND ODOR	: Clear/pale yellow liquid with slight odor
EVAPORATION RATE	: NE
PERCENT VOC BY VOLUME	: Negligible

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 200° F

METHOD USED: Closed Cup

FLAMMABLE LIMITS IN AIR BY VOLUME - **LOWER:** Not Established
UPPER: Not Established

EXTINGUISHING MEDIA: Foam, Alcohol Foam, CO2, Dry Chemical

OSHA FLAMMABILITY CLASSIFICATION: Not Applicable

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH/MSHA approved self contained breathing apparatus and full protective clothing. Use water to keep fire exposed containers cool. Water may be ineffective as an extinguishing agent.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and may travel along the ground or be moved by ventilation to ignition sources at locations distant from material handling point. Pressure may build up in containers and create an explosion hazard.

SECTION 5: REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: High heat and moisture.

INCOMPATIBILITY (MATERIALS TO AVOID): Water, amines, strong bases, alcohols, metal compounds and surface active materials.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: High heat and fire: carbon dioxide, carbon monoxide, oxides of nitrogen, traces of HCN, HDI.

HAZARDOUS POLYMERIZATION: May occur. Contact with moisture or other materials which react with isocyanates or temperatures over 400°F may cause polymerization.

SECTION 6: HEALTH HAZARD DATA

HEALTH RISKS AND SYMPTOMS OF OVEREXPOSURE:

EYES: Irritation, burning, tearing, and redness.

SKIN: Moderate irritation or defatting of skin upon prolonged or repeated contact.

INGESTION: Abdominal pain, nausea, vomiting and diarrhea.

INHALATION: Excessive exposure to vapors can cause headache, dizziness, uncoordination, nausea, and loss of consciousness.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Flush with cool water for at least 15 minutes. Call a physician.

SKIN: Remove contaminated clothing, wash skin with soap and water. Launder contaminated clothing before reuse.

INGESTION: Do Not Induce Vomiting. Get medical attention immediately.

INHALATION: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

CARCINOGENICITY: NTP CARCINOGEN: No **IARC MONOGRAPHS:** No **OSHA REGULATED:** No

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike spill area. Soak up with absorbent material and place in sealed metal containers for proper disposal.

WASTE DISPOSAL METHOD: Dispose of in accordance with local, state and federal EPA regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in dry area. Keep away from open flames and high temperatures.

OTHER PRECAUTIONS: Minimize contact. Avoid breathing vapors. Practice good industrial hygiene and safe working practices.

SECTION 8: CONTROL MEASURES

RESPIRATORY PROTECTION: Use NIOSH approved carbon mask respirator under appropriate OSHA standards and regulations. A combination of both proper ventilation and respiratory protection would tend to eliminate most risks.

VENTILATION: Local exhaust is recommended.

PROTECTIVE GLOVES: Chemical resistant gloves.

EYE PROTECTION: Wear liquid chemical goggles. Contact lenses should not be worn.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Eye wash facility and safety shower recommended. Long sleeve shirts and pants.

WORK/HYGIENIC PRACTICES: Wash hands with soap and water after using and before eating.

SECTION 9: REGULATORY INFORMATION

D. O. T. PROPER SHIPPING NAME: Polyisocyanate

PROPER SHIPPING NAME: Polyisocyanate

HAZARD CLASS: Not Regulated by DOT, IMO, or ICAO

UN/NA ID NUMBER:

PACKING GROUP

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