



SAFETY DATA SHEET

KEY #451 PART B HARDENER

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Revision – 5/28/2020

1. Product and Company Information

Product Code: 451 Part B Hardener
Product Name: Key #451 Urethane Topcoat Part A - CLEAR
Company Name: Key Resin Company
4050 Clough Woods Dr.
Batavia, OH 45103

Phone Number:
(513) 943-4225

Emergency Contact: Involving Spills, Leaks Fires, Exposures, or Accidents CHEMTREC: (800) 424-9300

2. Hazards Identification

Acute Toxicity: Inhalation, Category 4
Serious Eye Damage/Eye Irritation, Category 2A
Respiratory Sensitization, Category 1
Flammable Liquids, Category 2
Target To Reproduction, Category 1B
Aquatic Toxicity (Acute), Category 3



GHS Signal Word:
GHS Hazard Phrases:

Danger

H225 – Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H333 - May be harmful if inhaled.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation.
H360 – May damage fertility or the unborn child.
H402 – Harmful to aquatic life.

GHS Precaution Phrases:

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P241 - Use explosion-proof electrical/ventilating/lighting/ equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.

GHS Response Phrases:

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P285 - In case of inadequate ventilation wear respiratory protection.
P301+330+331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical aid.
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+313 - If skin irritation occurs, get medical advice/attention.
P337+313 - If eye irritation persists, get medical advice/attention.
P370+378 - In case of fire, use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.
P403+235 - Store in cool/well-ventilated place. Store locked up.
P501-Contact a licensed professional waste disposal service to dispose of this material.

GHS Storage and Disposal Phrases:

Potential Health Effects (Acute and Chronic):

Inhalation:

Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis.
Material is irritating to mucous membranes and upper respiratory tract. Harmful if inhaled. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Vapors may cause dizziness or suffocation.

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Skin Contact:	May be harmful if absorbed through the skin. Prolonged and/or repeated contact may cause irritation and/or dermatitis.
Eye Contact:	Causes eye irritation. Causes redness and pain.
Ingestion:	May be harmful if swallowed. May be harmful if inhaled. May cause irritation of the digestive tract. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal.

3. Composition Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
Proprietary	Poly(hexamethylene diisocyanate)	70.0 – 80.0%
616-38-6	Dimethyl Carbonate	15.0 – 25.0%
108-65-6	Propylene glycol methyl ether acetate	1.0 – 10.0%

4. First Aid Measures

Emergency and First Aid Procedures:	
In Case of Inhalation:	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Remove from exposure and move to fresh air immediately. Get medical aid.
In Case of Skin Contact:	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If skin irritation occurs, get medical advice/attention.
In Case of Eye Contact:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
In Case of Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting. Get medical aid.
Note to Physician:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Treat symptomatically and supportively.

5. Fire Fighting Measures

Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
Fire Fighting Instructions:	Use water spray to cool unopened containers. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Flammable Liquid. Emits toxic fumes under fire conditions. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.
Flammable Properties and Hazards:	Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Forms explosive mixtures in air.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:	Personal precautions. Use personal protective equipment. Spills/Leaks: Control runoff and isolate discharged material for proper disposal. Use water spray to cool and disperse vapors and protect personnel.
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7. Handling and Storage

Precautions To Be Taken in Handling:	Avoid contact with skin and eyes. Normal measures for preventive fire protection. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
Precautions To Be Taken in Storing:	Containers which are opened must be carefully resealed and kept upright to prevent leakage. Suitable: Keep away from heat, sparks, and open flame.

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8. Exposure Control / Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA
Proprietary	Poly(hexamethylene diisocyanate)	N/A	N/A
616-38-6	Dimethyl Carbonate	N/E	N/E
108-65-6	Propylene glycol methyl ether acetate	N/E	N/E

Respiratory Equipment (Specify Type):

For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

Eye Protection:

Safety glasses with side shield. For a higher degree of protection, wear chemical splash goggles.

Protective Gloves:

Wear appropriate protective gloves to prevent skin exposure, such as butyl rubber or nitrile rubber.

Other Protective Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls

(Ventilation etc.):

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Work/Hygienic/Maintenance Practices:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of each workday. Wash thoroughly after handling. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Physical States:	<input type="checkbox"/> Gas	<input checked="" type="checkbox"/> Liquid	<input type="checkbox"/> Solid
Flash Point:	60°F		
Boiling Point:	190°F		
Explosive Limits:	LEL: 1.7		UEL: 12.9
Weight Per Gallon:	9.25 +/- .25		
Vapor Pressure (mm Hg):	18 @ 68°F		
Vapor Density:	Heavier than Air		
Evaporation Rate:	3.2		
Percent Volatile:	30 (VOL)		

10. Stability and Reactivity

Stability:	Unstable <input type="checkbox"/>	Stable <input checked="" type="checkbox"/>
Conditions To Avoid – Instability:	Heat, Flames and Sparks.	
Incompatibility – Materials To Avoid:	Bases, Strong oxidizing agents.	
Hazardous Decomposition Or Byproducts:	Nature of decomposition products unknown.	
Possibility of Hazardous Reactions:	Will occur <input type="checkbox"/>	Will not occur <input checked="" type="checkbox"/>

11. Toxicological Information

Toxicological Information:

Other information on acute toxicity. No data available.
Respiratory or skin sensitization: Germ cell mutagenicity. Reproductive toxicity - no data available.
Teratogenicity: No data available.
Specific target organ toxicity -single exposure (Globally Harmonized System) Specific target organ toxicity – repeated exposure (Globally Harmonized System)
Aspiration hazard. Epidemiology: No information found.
Teratogenicity: Exposure to n-butyl acetate vapors throughout gestation did not cause significant teratogenicity in rabbits, rats, or mice.
Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies:

Irritation or Corrosion:

No data available

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Carcinogenicity/Other Information:

Carcinogenicity.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. Ecological Information

General Ecological Information: No data available

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

13. Disposal Considerations

Waste Disposal Method:

Dispose of as unused product. This material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: UN1263, Paint Related Material, 3, PG II



Marine Transport

IMDG Shipping Name:

UN1263, Paint Related Material, 3, PG II



AIR TRANSPORT (ICAO/IATA):

IATA Shipping Name: UN1263, Paint Related Material, 3, PG II



15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
Proprietary	Poly(hexamethylene diisocyanate)	No	No	No
616-38-6	Dimethyl Carbonate	No	No	No
108-65-6	Propylene Glycol Methyl Ether Acetate	No	No	No

All components in this product are listed in the TSCA Inventory List.

V.O.C. mixed: 100 GMS/L (Mixed)

16. Transport Information

Revision Date: 5/28/2020

Additional Information About This Product:

Hazardous Material Information System III (U.S.A)

Health: 2*

Flammability: 2

Reactivity: 1

Personal Protection: *

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by the Key Resin Co. and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.