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Version 5

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

### Product Identifier

Product name KEY QP300B

### Other Means of Identification

Product Code QP300B  
Product Technology Epoxy B side  
Document Key Quick Patch Part B

None

Curing chemical. FOR INDUSTRIAL USE ONLY.

Restrictions on use: Do not use this product for any use other than intended

### Manufacturer Address

Key Polymer Corporation  
17 Shepard Street  
Lawrence, MA 01843, USA

Company Phone Number 978-683-9411 (8AM - 5PM EST) (M-F)

Emergency Telephone Chemtrec 1-800-424-9300 (24 Hours)

Chemtrec International Phone +1 703 527-3887

## 2. Hazards Identification

### Classification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS). This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Subcategory   Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive Toxicity	Category 2

## EMERGENCY OVERVIEW

**DANGER**

### Hazard Statements

Causes severe skin burns and eye damage

May cause an allergic skin reaction  
 Suspected of damaging fertility or the unborn child  
 Harmful if swallowed



**Appearance** Paste White

**Physical State** Paste/Gel

**Odor** Amine

#### Precautionary Statements - Prevention

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust, fumes, or vapors  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves

#### Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 Wash contaminated clothing before reuse  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Do NOT induce vomiting

#### Precautionary Statements - Storage

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

#### Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/regional/international regulations

#### Hazards Not Otherwise Classified (HNOC)

#### Other Information

Very toxic to aquatic life with long lasting effects, Very toxic to aquatic life  
 19.032% of the mixture consists of ingredient(s) of unknown toxicity

### 3. Composition/Information on Ingredients

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Chemical Family** Epoxy B Side, Curing Agent

Chemical Name	CAS No	Weight-%	Trade secret
Aliphatic Polyamine	Proprietary	30 - 40	*

Phenol, 4-nonyl-, branched	84852-15-3	20 - 25	*
Titanium dioxide	13463-67-7	20 - 25	*
Diethylenetriamine	111-40-0	1 - 2	*
Aluminium hydroxide	21645-51-2	1 - 5	*

\* The exact percentage (concentration) of composition may have been withheld as a trade secret.

#### 4. First Aid Measures

##### **FIRST AID MEASURES**

<b>General Advice</b>	Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation persists.
<b>Skin Contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician. Wash contaminated clothing before reuse.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult. If symptoms persist, call a physician.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a physician or Poison Control Center immediately.
<b>Self-Protection of the First Aider</b>	First Aider: Pay attention to self-protection. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

##### **Most Important Symptoms and Effects, Both Acute and Delayed**

**Symptoms** May cause allergic skin reaction.

##### **Indication of Any Immediate Medical Attention and Special Treatment Needed**

**Note to Physicians** Treat symptomatically.

#### 5. Fire-Fighting Measures

##### **Suitable Extinguishing Media**

Foam, Dry Chemical, Carbon Dioxide (CO<sub>2</sub>);

**Unsuitable Extinguishing Media** Water reactive.

##### **Specific Hazards Arising From the Chemical**

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water ways. Dike for water control.

**Hazardous Combustion Products** Carbon oxides; Nitrogen oxides (NO<sub>x</sub>).

##### **Explosion Data**

**Sensitivity to Mechanical Impact** None.  
**Sensitivity to Static Discharge** None.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. Accidental Release Measures****Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions** Ensure adequate ventilation, especially in confined areas.

**Other Information** Use personal protective equipment as required.

**For Emergency Responders** Use personal protective equipment as required.

**Environmental Precautions**

**Environmental Precautions** Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional Ecological Information.

**Methods and Material for Containment and Cleaning Up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and Storage****Precautions for Safe Handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Materials** Acids; Bases; Strong oxidizing agents; Water. Reactive metals (e.g. sodium, calcium, zinc, etc.).

**8. Exposure Controls/Personal Protection****Control Parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Titanium dioxide 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup>
Diethylenetriamine 111-40-0	TWA: 1 ppm S*	(vacated) TWA: 1 ppm (vacated) TWA: 4 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 4 mg/m <sup>3</sup>
Aluminium hydroxide 21645-51-2	TWA: 1 mg/m <sup>3</sup> respirable fraction	-	-

**Appropriate Engineering Controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems

**Individual Protection Measures, Such As Personal Protective Equipment**

**Eye/Face Protection** Splash Goggles. Avoid contact with eyes.

**Skin and Body Protection** Wear protective gloves and protective clothing.

<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>General Hygiene Considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

### Information on Basic Physical and Chemical Properties

<b>Physical State</b>	Paste/Gel	<b>Odor</b>	Amine
<b>Appearance</b>	Paste	<b>Odor Threshold</b>	No information available
<b>Color</b>	White		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	
<b>pH</b>	No information available		
<b>Melting Point/Freezing Point</b>	No information available		
<b>Boiling Point/Boiling Range</b>	> 150 °C		
<b>Flash Point</b>	156 °C	Setaflash Closed Tester	
<b>Evaporation Rate</b>	Slower than n-butyl acetate		
<b>Flammability (Solid, Gas)</b>	No information available		
<b>Flammability Limits in Air</b>			
<b>Upper Flammability Limits</b>	No information available		
<b>Lower Flammability Limit</b>	No information available		
<b>Vapor Pressure</b>	No information available		
<b>Vapor Density</b>	Heavier than air		
<b>Specific Gravity</b>	1.225		
<b>Water Solubility</b>	Negligible		
<b>Solubility in Other Solvents</b>	No information available		
<b>Partition Coefficient</b>	No information available		
<b>Autoignition Temperature</b>	No information available		
<b>Decomposition Temperature</b>	No information available		
<b>Kinematic Viscosity</b>	No information available		
<b>Dynamic Viscosity</b>	18,000 cps @ 25° C		
<b>Explosive Properties</b>	Not an explosive		
<b>Oxidizing Properties</b>	No information available		
<b><u>Other Information</u></b>			
<b>Softening Point</b>	No information available		
<b>Molecular Weight</b>	No information available		
<b>VOC Content (%)</b>	No information available		
<b>Density</b>	10.2 pounds/gallon		
<b>Bulk Density</b>	No information available		

## 10. Stability and Reactivity

### Reactivity

No data available

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to Avoid

Keep out of reach of children. Avoid moisture. Incompatible Materials.

### Incompatible Materials

Acids; Bases; Strong oxidizing agents; Water. Reactive metals (e.g. sodium, calcium, zinc, etc.).

**Hazardous Decomposition Products**

Carbon oxides; Nitrogen oxides (NOx). Nitric acid. Ammonia. Sulfur oxides. Hydrogen sulfide. Formaldehyde. May emit toxic fumes under fire conditions.

## 11. Toxicological Information

**Information on Likely Routes of Exposure****Product Information**

The product has not been tested.

**Inhalation**

Remove to fresh air. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Eye Contact**

May cause serious eye damage. Avoid contact with eyes.

**Skin Contact**

Harmful in contact with skin. Contact causes severe skin irritation and possible burns. Avoid contact with skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**Ingestion**

Not an expected route of exposure. Harmful if swallowed. Can burn mouth, throat, and stomach. Do NOT taste or swallow.

**Component Information**

Caution - This preparation contains a substance not yet fully tested

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50
Aliphatic Polyamine	= 2140 mg/kg ( Rat )	= 880 µL/kg ( Rabbit )	-
Phenol, 4-nonyl-, branched 84852-15-3	= 580 mg/kg ( Rat )	= 2031 mg/kg ( Rabbit )	-
Titanium dioxide 13463-67-7	> 10000 mg/kg ( Rat )	-	-
Diethylenetriamine 111-40-0	= 1080 mg/kg ( Rat )	= 672 mg/kg ( Rabbit )	= 70 mg/L ( Rat ) 4 h
Aluminium hydroxide 21645-51-2	> 5000 mg/kg ( Rat )	-	-

**Information on toxicological effects**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Repeated or prolonged contact may cause skin irritation and dermatitis. Causes burns.

**Serious eye damage/eye irritation**

Risk of serious damage to eyes.

**Irritation**

Causes severe irritation and or burns.

**Corrosivity**

Risk of serious damage to eyes.

**Sensitization**

May cause sensitization by skin contact. Repeated or prolonged contact may cause allergic reactions in very susceptible persons.

**Germ Cell Mutagenicity**

No information available.

**Carcinogenicity**

Titanium Dioxide (CAS 13463-67-7) is a naturally occurring substance that poses very low respirable carcinogen risk when encapsulated in a polymeric liquid. If sanding or grinding finished product, wear appropriate personal protective equipment for respirable dust hazards.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7		Group 2B		X

*IARC (International Agency for Research on Cancer)*

*Group 2B - Possibly Carcinogenic to Humans*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

*X - Present*

**Reproductive Toxicity**

Category 2: Substances which should be regarded as if they impair fertility in humans.

**STOT - Single Exposure**

May cause disorder and damage to the; Skin, Lungs, Eyes, Central nervous system.

**STOT - Repeated Exposure**

May cause disorder and damage to the; Kidney, Skin.

**Target Organ Effects** Skin, Eyes, Blood, Liver, Lungs, Central nervous system.  
**Aspiration Hazard** No information available.

### Numerical Measures of Toxicity - Product Information

**Unknown Acute Toxicity** 19.032% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 742 mg/kg  
**ATEmix (dermal)** 1897 mg/kg  
**ATEmix (inhalation-dust/mist)** 3286 mg/l

## 12. Ecological Information

### Ecotoxicity

No information available

42.511% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Aliphatic Polyamine	495: 72 h Pseudokirchneriella subcapitata mg/L EC50	1950 - 2460: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 100: 96 h Oncorhynchus mykiss mg/L LC50 semi-static		32: 48 h Daphnia magna mg/L EC50
Phenol, 4-nonyl-, branched 84852-15-3	0.36 - 0.48: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 0.16 - 0.72: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 1.3: 72 h Desmodesmus subspicatus mg/L EC50	0.135: 96 h Pimephales promelas mg/L LC50 flow-through 0.1351: 96 h Lepomis macrochirus mg/L LC50 flow-through		0.14: 48 h Daphnia magna mg/L EC50
Diethylenetriamine 111-40-0	1164: 72 h Pseudokirchneriella subcapitata mg/L EC50 345.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 592: 96 h Desmodesmus subspicatus mg/L EC50	248: 96 h Poecilia reticulata mg/L LC50 static 1014: 96 h Poecilia reticulata mg/L LC50 semi-static 430: 96 h Leuciscus idus mg/L LC50 semi-static		16: 48 h Daphnia magna mg/L EC50 37: 24 h Daphnia magna mg/L EC50

### Persistence and Degradability

No information available

Chemical Name	Partition Coefficient
Aliphatic Polyamine	-1.48
Diethylenetriamine 111-40-0	-1.3

### Other Adverse Effects

No information available

**Ozone Depletion Potential (ODP)** No information available

## 13. Disposal Considerations

### Waste Treatment Methods

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Do not reuse container.

## 14. Transport Information

<b><u>DOT</u></b>	Not regulated
<b><u>ICAO (air)</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG</u></b>	Not regulated

## 15. Regulatory Information

### **International Inventories**

**TSCA** All components of this product are either exempt or included on the TSCA Inventory in compliance with the Toxic Substances Control Act.

### **Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

### **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Phenol, 4-nonyl-, branched - 84852-15-3	84852-15-3	20 - 25	1.0

#### **SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### **US State Regulations**

The following chemicals may be contained in this product in de minimis amounts not required for listing in section 3. However,



these chemicals do appear on some state Right-to-Know (RTK) and/or other hazardous substance lists. Please check your state's listings for more information.

### California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Titanium dioxide - 13463-67-7	Carcinogen

### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Aliphatic Polyamine	X	X	X
Titanium dioxide 13463-67-7	X	X	X
Diethylenetriamine 111-40-0	X	X	X

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

## 16. Other Information

**HMIS**                      **Health Hazards 2\***      **Flammability 1**                      **Physical Hazards 0**      **Personal Protection X**  
*Chronic Hazard Star Legend*                      *\* = Chronic Health Hazard*

**Prepared by**                      Key Polymer Corp Compliance  
**Issue Date**                      08-May-2015  
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#### Revision note

No information available

#### Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**