Safety Data Sheet

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

Product Identifier

Product name KEY QP300A

Other Means of Identification

Product Code QP300A
Product Technology Epoxy A side
Document Key Quick Patch Part A
None
Epoxy A side. 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).

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Reproductive Toxicity	Category 1B

EMERGENCY OVERVIEW

DANGER

Hazard Statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May damage fertility or the unborn child

Appearance Paste White **Physical State** Paste/Gel **Odor** Solvent

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust, fumes, or vapors
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves, protective clothing, eye protection, face protection

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

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

Toxic to aquatic life with long lasting effects
11.24425812% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Chemical Family Epoxy A Side
Chemical nature Epoxy resin mixture.

Chemical Name	CAS No	Weight-%	Trade secret
Bisphenol A diglycidyl ether resin	25068-38-6	60 - 80	*
Titanium dioxide	13463-67-7	10 - 20	*
Calcium carbonate	1317-65-3	5 - 10	*
2-Butanone	78-93-3	1 - 2	*
1-Methyl-2-pyrrolidinone	872-50-4	0.1 - 0.5	*

Calcium carbonate, when encapsulated in a polymer, is not expected to pose a respirable health hazard when processed under normal conditions of use.
* The exact percentage (concentration) of composition may have been withheld as a trade secret.

4. First Aid Measures

FIRST AID MEASURES

General Advice 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).

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion Not an expected route of exposure. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Self-Protection of the First Aider First Aider: Pay attention to self-protection. Use personal protective equipment as required.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to Physicians Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media

Use CO2, dry chemical, or foam

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising From the Chemical

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 Irritating or toxic substances may be emitted upon burning, combustion or decomposition. See Section 10 Hazardous Decomposition Products for additional information.

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 Ventilate affected area. Extremely slippery when spilled.

Other Information Use personal protective equipment as required.

For Emergency Responders Use personal protective equipment as required.

Environmental Precautions

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

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. Store and handle away from heat, flames and oxidizing materials.

Incompatible Materials Strong oxidizing agents. Strong acids. Strong bases. Halogens. Chlorinated compounds.

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/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³
Calcium carbonate 1317-65-3	-	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 15 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction	TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust
2-Butanone 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m³ (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m³	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m³ STEL: 300 ppm STEL: 885 mg/m³

Appropriate Engineering Controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual Protection Measures, Such As Personal Protective Equipment

Eye/Face Protection Splash Goggles.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory Protection 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.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State	Paste/Gel		
Appearance	Paste	**Odor**	Solvent
Color	White	**Odor Threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting Point/Freezing Point	No information available	
Boiling Point/Boiling Range	> 100 °C	
Flash Point	84 °C	Setaflash Closed Tester
Evaporation Rate	Slower than n-butyl acetate	
Flammability (Solid, Gas)	No information available	
Flammability Limits in Air		
Upper Flammability Limits	No information available	
Lower Flammability Limit	No information available	
Vapor Pressure	No information available	
Vapor Density	Heavier than air	
Specific Gravity	1.225	
Water Solubility	Immiscible in water	
Solubility in Other Solvents	No information available	
Partition Coefficient	No information available	
Autoignition Temperature	No information available	
Decomposition Temperature	No information available	
Kinematic Viscosity	No information available	
Dynamic Viscosity	20,000 cps @ 25° C	
Explosive Properties	Not an explosive	
Oxidizing Properties	No information available	

Other Information

Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	No information available
Density	10.2 pounds/gallon
Bulk Density	No information available

10. Stability and Reactivity

Reactivity

No data available

Chemical Stability
Stable under recommended storage conditions.
Possibility of Hazardous Reactions
Hazardous polymerization does not occur.
hazardous polymerization None under normal processing.

Conditions to Avoid
Keep out of reach of children. Extremes of temperature and direct sunlight. Mixture with or exposure to incompatible materials.
Incompatible Materials
Strong oxidizing agents. Strong acids. Strong bases. Halogens. Chlorinated compounds.
Hazardous Decomposition Products
Carbon monoxide. Carbon Dioxide (CO2). Aldehydes. Aromatic hydrocarbons. Formaldehyde. Diethylamine. 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 No data available.

Eye Contact Severely irritating to eyes. Avoid contact with eyes. Vapor may cause irritation.

Skin Contact Avoid contact with skin. Causes skin irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion Not an expected route of exposure. Harmful if swallowed. May cause adverse liver effects.

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50
Bisphenol A diglycidyl ether resin 25068-38-6	= 11400 mg/kg (Rat)	-	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
2-Butanone 78-93-3	= 2483 mg/kg (Rat) = 2737 mg/kg (Rat)	= 6480 mg/kg (Rabbit) = 5000 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
1-Methyl-2-pyrrolidinone 872-50-4	= 3598 mg/kg (Rat)	= 8 g/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h

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. Irritating to skin.
Serious eye damage/eye irritation Irritating to eyes.
Irritation Irritating to eyes, respiratory system and skin.
Sensitization May cause sensitization of 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 Product is or contains a chemical which is a known or suspected reproductive hazard. May impair fertility.
STOT - Single Exposure No information available.
STOT - Repeated Exposure Pre-existing diseases of the liver may result in increased susceptibility to the toxicity of excessive exposure.
Chronic Toxicity Repeated contact may cause allergic reactions in very susceptible persons.
Target Organ Effects Liver.
Aspiration Hazard No information available.

Numerical Measures of Toxicity - Product Information

Unknown Acute Toxicity 11.24425812% 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)	10580 mg/kg
ATEmix (dermal)	314469 mg/kg
ATEmix (inhalation-vapor)	735858 mg/l

12. Ecological Information

Ecotoxicity

No information available
28.2344% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
2-Butanone 78-93-3		3130 - 3320: 96 h Pimephales promelas mg/L LC50 flow-through		520: 48 h Daphnia magna mg/L EC50 5091: 48 h Daphnia magna mg/L EC50 4025 - 6440: 48 h Daphnia magna mg/L EC50 Static
1-Methyl-2-pyrrolidinone 872-50-4	500: 72 h Desmodesmus subspicatus mg/L EC50	832: 96 h Lepomis macrochirus mg/L LC50 static 1072: 96 h Pimephales promelas mg/L LC50 static 1400: 96 h Poecilia reticulata mg/L LC50 static 4000: 96 h Leuciscus idus mg/L LC50 static		4897: 48 h Daphnia magna mg/L EC50

Persistence and Degradability
No information available

Chemical Name	Partition Coefficient
2-Butanone 78-93-3	0.29
1-Methyl-2-pyrrolidinone 872-50-4	-0.46

Other Adverse Effects
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.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
2-Butanone 78-93-3	U159	Included in waste streams: F005, F039	200.0 mg/L regulatory level	U159

14. Transport Information

Note: A197 - Not restricted provided that the net quantity in any receptacle does not exceed 5 Kg or 5 L and the packaging meets defined standards.

DOT Not regulated

ICAO (air)

UN/ID no UN3082

Proper Shipping Name	Environmentally Hazardous Substance N.O.S. (Bisphenol A epoxy resin)
Hazard Class	9
Packing group	III
Special Provisions	A197 - Not restricted provided that the net quantity in any receptacle does not exceed 5 Kg or 5 L and the packaging meets defined standards

IATA

UN/ID no	UN3082
Proper Shipping Name	Environmentally Hazardous substance Liquid N.O.S. (Bisphenol A epoxy resin)
Hazard Class	9
Packing group	III
Special Provisions	A197 - Not restricted provided that the net quantity in any receptacle does not exceed 5 Kg or 5 L and the packaging meets defined standards

IMDG

UN/ID no	UN3082
Proper Shipping Name	Environmentally Hazardous Substance Liquid N.O.S. (Bisphenol A epoxy resin)
Hazard Class	9
Packing group	III
EmS-No	IMDG code 2.9.3
Special Provisions	A197 - Not restricted provided that the net quantity in any receptacle does not exceed 5 Kg or 5 L and the packaging meets defined standards
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

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 %
1-Methyl-2-pyrrolidinone - 872-50-4	872-50-4	0.1 - 0.5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	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

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
2-Butanone 78-93-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

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
1-Methyl-2-pyrrolidinone - 872-50-4	Developmental
Silicon dioxide - 14808-60-7	Carcinogen
Glycidyl phenyl ether - 122-60-1	Carcinogen Male Reproductive

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Titanium dioxide 13463-67-7	X	X	X
Calcium carbonate 1317-65-3	X	X	X
2-Butanone 78-93-3	X	X	X
1-Methyl-2-pyrrolidinone 872-50-4	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

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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