Safety Data Sheet

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

Product Identifier

Product name KEY PC2031B/2032B

Other Means of Identification

Product Code PC2031B, PC2032B
Product Technology Epoxy B side
Document Tough-Seal 31B, Tough-Seal 32B
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

EMERGENCY OVERVIEW

WARNING

Hazard Statements
Harmful if swallowed
Harmful in contact with skin



Appearance Opaque Black **Physical State** Liquid **Odor** None

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves, protective clothing, eye protection, face protection

Precautionary Statements - Response
Call a POISON CENTER or doctor/physician if you feel unwell
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Storage
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

Causes mild skin irritation
91% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Chemical Family Epoxy B Side

Chemical Name	CAS No	Weight-%	Trade secret
Proprietary curing agent	Proprietary	5 - 10	*
Carbon Black	1333-86-4	0.5 - 2	*

* 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. Call a physician if irritation persists.

Skin Contact 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.

Inhalation 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.

Ingestion IF SWALLOWED:. Rinse mouth. Do NOT induce vomiting. Call a physician or Poison Control Center immediately.

Self-Protection of the First Aider 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 (CO2).

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 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 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, Copper, Aluminum, Zinc.

8. Exposure Controls/Personal Protection

Control Parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Carbon Black 1333-86-4	TWA: 3 mg/m³ inhalable fraction	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

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.

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 Liquid
Appearance Opaque
Color Black
Odor None
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	133 °C	Setaflash Closed Tester
Evaporation Rate	No information available	

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	No information available
Specific Gravity	1.02
Water Solubility	Slightly soluble
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	No information available
Explosive Properties	No information available
Oxidizing Properties	No information available

Other Information

Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	No information available
Density	8.5 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.
Conditions to Avoid
Keep out of reach of children. Avoid moisture. Incompatible Materials.
Incompatible Materials
Acids, Bases, Strong oxidizing agents, Water, Copper, Aluminum, Zinc.
Hazardous Decomposition Products
Carbon oxides, Nitrogen oxides (NOx), Nitric acid, Ammonia, 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. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eye Contact Avoid contact with eyes. Contact with eyes may cause irritation.

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

Ingestion Do NOT taste or swallow. Not an expected route of exposure. Harmful if swallowed.

Component Information Caution - This preparation contains a substance not yet fully tested

Chemical Name	Oral LD50 (Rat)	Dermal LD50 (Rabbit)	Inhalation LC50
Proprietary curing agent	= 1000 mg/kg (Rat)	= 1280 mg/kg (Rat)	-

Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

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.
Irritation May cause skin and eye irritation. May cause irritation of respiratory tract.
Sensitization No information available.
Germ Cell Mutagenicity No information available.
Carcinogenicity Carbon Black (CAS 1333-86-4) poses extremely low respirable carcinogenic risk when encapsulated in a polymeric liquid. If sanding or grinding cured product, wear appropriate personal protective equipment for respirable dust hazards.

Chemical Name	ACGIH	IARC	NTP	OSHA
Carbon Black 1333-86-4	A3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
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 No information available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Aspiration Hazard No information available.

Numerical Measures of Toxicity - Product Information

Unknown Acute Toxicity 91% 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) 1477 mg/kg
ATEmix (dermal) 1784 mg/kg

12. Ecological Information

Ecotoxicity

No information available
99.95% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Carbon Black 1333-86-4				5600: 24 h Daphnia magna mg/L EC50

Persistence and Degradability
No information available

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

DOT Not regulated

Proper Shipping Name Non-Regulated Adhesive, class 60

ICAO (air) Not regulated

IATA Not regulated

IMDG 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.
EINECS	All components are listed or exempted.
ELINCS	Complies
IECSC	All components are listed or exempted.
AICS	All components are listed or exempted.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances

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

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
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

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
Carbon Black - 1333-86-4	Carcinogen
Methanol - 67-56-1	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Carbon Black 1333-86-4	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