

HPD UNIQUE IDENTIFIER: 1321515008

CLASSIFICATION: 09 67 23 Resinous Flooring

PRODUCT DESCRIPTION: KEY #472 is a two component, ultra high solids, extended working time aliphatic polyaspartic polyurea designed to provide high gloss, UV light stable (non-yellowing), high temperature resistance and chemical resistant protection. KEY #472 is a superior, new generation resin exhibiting fast cure time and excellent stain resistance. KEY #472 has very low odor and can be applied indoors in occupied areas. KEY #472 can be used as a clear high gloss finish coating on various Key Resin Systems.

**Section 1: Summary**

**Basic Method / Product Threshold**

**CONTENT INVENTORY**

<b>Inventory Reporting Format</b>	<b>Threshold Level</b>	<b>Residuals/Impurities Evaluation</b>	<i>For all contents above the threshold, the manufacturer has:</i>
<input type="radio"/> Nested Materials Method	<input type="radio"/> 100 ppm	<input checked="" type="radio"/> Completed	<b>Characterized</b> <input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="radio"/> Basic Method	<input checked="" type="radio"/> 1,000 ppm	<input type="radio"/> Partially Completed	<i>Provided weight and role.</i>
	<input type="radio"/> Per GHS SDS	<input type="radio"/> Not Completed	<b>Screened</b> <input type="radio"/> Yes <input checked="" type="radio"/> No
<b>Threshold Disclosed Per</b>	<input type="radio"/> Other	<b>Explanation(s) provided :</b>	<i>Provided screening results using HPDC-approved methods.</i>
<input type="radio"/> Material		<input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Identified</b> <input type="radio"/> Yes <input checked="" type="radio"/> No
<input checked="" type="radio"/> Product			<i>Provided name and CAS RN or other identifier.</i>

**CONTENT IN DESCENDING ORDER OF QUANTITY**

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

**PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY GREENSCREEN SCORE | HAZARD TYPE**  
**KEY #472 POLYASPARTIC COATING [ ASPARTIC ESTER** Not Screened  
**HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYMER** LT-P1 |  
**SKI 2-BUTENEDIOIC ACID (E)-, DIETHYL ESTER** LT-UNK | MAM | AQU  
**ETHYLBENZENE** BM-1 | END | SKI | CAN | REP | PHY | MAM | EYE |  
**AQU HEXAMETHYLENE DIISOCYANATE** LT-UNK | RES | SKI | EYE |  
**MAM ]**

Number of Greenscreen BM-4/BM3 contents ... 0  
 Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... LT-P1, BM-1  
 Nanomaterial ... No

**INVENTORY AND SCREENING NOTES:**

This HPD was generated with basic inventory information

**VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

Material (g/l): < 50, compliant to low VOC Rule 1113 in all 50 states  
 Regulatory (g/l): < 50, compliant to low VOC Rule 1113 in all 50 states  
 Does the product contain exempt VOCs: No  
 Are colorants available that do not increase the VOC content of the base paint when tinted: N/A

**CERTIFICATIONS AND COMPLIANCE** See Section 3 for additional listings.

VOC emissions: CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario  
 VOC content: EPA Method 24 - Volatile Matter Content (EPA 24)

**CONSISTENCY WITH OTHER PROGRAMS**

No pre-checks completed or disclosed.

Third Party Verified? <input type="radio"/> Yes <input checked="" type="radio"/> No	PREPARER: Self-Prepared VERIFIER: VERIFICATION #:	SCREENING DATE: 2023-08-09 PUBLISHED DATE: 2023-08-09 EXPIRY DATE: 2026-08-09
---	---	---

## Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.3, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-3-standard](http://www.hpd-collaborative.org/hpd-2-3-standard)

### KEY #472 POLYASPARTIC COATING

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

RESIDUALS AND IMPURITIES NOTES: The product is estimated to have no residuals/impurities over 1000 ppm based on raw material supplier information

OTHER PRODUCT NOTES:

#### ASPARTIC ESTER

ID: Not Registered

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: Not Screened

%: 36.0200 - 51.4500 GreenScreen: Not Screened RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE

LIST NAME AND SOURCE

WARNINGS

Hazard Screening not performed

ADDITIONAL LISTINGS

LIST NAME AND SOURCE

NOTIFICATION

Additional Hazard Screening not performed

SUBSTANCE NOTES: The Aspartic ester used in this product is a trade secret ingredient. But it's not a hazardous material and not need to reported on the GHS SDS.

#### HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYMER

ID: 28182-81-2

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-08-09 13:51:55

%: 31.5600 - 48.5500 GreenScreen: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Curing agent

HAZARD TYPE

LIST NAME AND SOURCE

WARNINGS

SKI

GHS - New Zealand

Skin sensitisation category 1

ADDITIONAL LISTINGS

LIST NAME AND SOURCE

NOTIFICATION

None found

No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

#### 2-BUTENEDIOIC ACID (E)-, DIETHYL ESTER

ID: 623-91-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2023-08-09 13:51:56

%: 2.5800 - 4.1200 GreenScreen: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Plasticizer

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

**ETHYLBENZENE**

ID: 100-41-4

HAZARD DATA SOURCE: <b>Pharos Chemical and Materials Library</b>	HAZARD SCREENING DATE: <b>2023-08-09 13:51:56</b>			
%: <b>0.0510 - 0.5150</b>	GreenScreen: <b>BM-1</b>	RC: <b>None</b>	NANO: <b>No</b>	SUBSTANCE ROLE: <b>Plasticizer</b>

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
CAN	CA EPA - Prop 65	Carcinogen
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
CAN	IARC	Group 2b - Possibly carcinogenic to humans
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1A]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H304 - May be fatal if swallowed and enters airways [Aspiration hazard - Category 1]
EYE	GHS - New Zealand	Eye irritation category 2
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
CAN	GHS - New Zealand	Carcinogenicity category 2
CAN	GHS - Japan	H351 - Suspected of causing cancer [Carcinogenicity - Category 2]
REP	GHS - New Zealand	Reproductive toxicity category 2
AQU	GHS - Japan	H400 - Very toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 1]
AQU	GHS - Japan	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]
PHY	GHS - New Zealand	Flammable liquids category 2
PHY	GHS - Japan	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
PHY	GHS - Malaysia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
PHY	GHS - Australia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes of Problematic Chemicals  Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Biological and Environmentally Released Materials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Children's Products
SUBSTANCE NOTES:		

## HEXAMETHYLENE DIISOCYANATE

ID: 822-06-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2023-08-09 13:51:57**

%: **0.2430 - 0.4850** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Curing agent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
RES	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization
SKI	EU - GHS (H-Statements) Annex 6 Table 3-1	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
MAM	EU - GHS (H-Statements) Annex 6 Table 3-1	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
MAM	GHS - New Zealand	Specific target organ toxicity - repeated exposure category 1
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
SKI	GHS - Japan	H314 - Causes severe skin burns and eye damage [Skin corrosion / irritation - Category 1]
SKI	GHS - Australia	H314 - Causes severe skin burns and eye damage [Skin corrosion/irritation - Category 1A or 1B or 1C]
SKI	GHS - New Zealand	Skin sensitisation category 1

EYE	GHS - Korea	H319 - Causes serious eye irritation [Serious eye damage/irritation - Category 2]
SKI	GHS - Korea	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
SKI	GHS - Malaysia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
MAM	GHS - Korea	H311 - Toxic in contact with skin [Acute toxicity (dermal) - Category 3]
MAM	Québec CSST - WHMIS 1988	Class D1A - Very toxic material causing immediate and serious toxic effects
MAM	GHS - Japan	H311 - Toxic in contact with skin [Acute Toxicity (dermal) - Category 3]
MAM	GHS - Malaysia	H331 - Toxic if inhaled [Acute toxicity (inhalation) - Category 3]
MAM	GHS - New Zealand	Acute dermal toxicity category 3
MAM	GHS - Korea	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 2]
MAM	GHS - Australia	H330 - Fatal if inhaled [Acute toxicity (inhalation) - Category 1 or 2]
EYE	GHS - Malaysia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
RES	GHS - Japan	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1A]
MAM	GHS - Korea	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
MAM	GHS - New Zealand	Acute inhalation toxicity category 1
MAM	GHS - Japan	H330 - Fatal if inhaled [Acute toxicity (inhalation: vapor) - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List  Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022  Formulated Consumer Products

SUBSTANCE NOTES:

## Section 3: Certifications and Compliance

*This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.*

### VOC EMISSIONS

CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario

CERTIFYING PARTY: Self-declared

ISSUE DATE: 2019-10-30

CERTIFIER OR LAB: Key Resin

APPLICABLE FACILITIES: ALL

EXPIRY DATE:

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: Small Environment Chamber VOC Emissions Test, ASTM D5116

### VOC CONTENT

EPA Method 24 - Volatile Matter Content (EPA 24)

CERTIFYING PARTY: Self-declared

ISSUE DATE: 2018-04-26

CERTIFIER OR LAB: Key Resin Lab

APPLICABLE FACILITIES: ALL

EXPIRY DATE:

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES:

## Section 4: Accessories

*This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.*

No accessories are required for this product.

## Section 5: General Notes

The product is estimated to have no residuals / impurities over 1000 ppm based on raw material supplier information.

**MANUFACTURER INFORMATION**

**MANUFACTURER:** Key Resin Company  
**ADDRESS:** 4050 Clough Woods Drive  
 Batavia, OHIO 45103, United States  
**WEBSITE:** [www.keyresin.com](http://www.keyresin.com)

**CONTACT NAME:** Travis Barkey  
**TITLE:** Technical Director  
**PHONE:** 15139434225  
**EMAIL:** [tbarkey@keyresin.com](mailto:tbarkey@keyresin.com)

*The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.*

**KEY**

**Hazard Types**

<b>AQU</b> Aquatic toxicity	<b>LAN</b> Land toxicity	<b>PHY</b> Physical hazard (flammable or reactive)
<b>CAN</b> Cancer	<b>MAM</b> Mammalian/systemic/organ toxicity	<b>REP</b> Reproductive
<b>DEV</b> Developmental toxicity	<b>MUL</b> Multiple	<b>RES</b> Respiratory sensitization
<b>END</b> Endocrine activity	<b>NEU</b> Neurotoxicity	<b>SKI</b> Skin sensitization/irritation/corrosivity
<b>EYE</b> Eye irritation/corrosivity	<b>NF</b> Not found on Priority Hazard Lists	<b>UNK</b> Unknown
<b>GEN</b> Gene mutation	<b>OZO</b> Ozone depletion	
<b>GLO</b> Global warming	<b>PBT</b> Persistent, bioaccumulative, and toxic	

**GreenScreen (GS)**

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-P1</b> List Translator Possible 1 (Possible Benchmark-1)
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-1</b> List Translator 1 (Likely Benchmark-1)
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	<b>LT-UNK</b> List Translator Benchmark Unknown
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	<b>NoGS</b> No GreenScreen.
<b>BM-U</b> Benchmark Unspecified (due to insufficient data)	

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, [www.greenscreenchemicals.org](http://www.greenscreenchemicals.org), and Best Practices for Hazard Screening on the HPDC website ([hpd-collaborative.org](http://hpd-collaborative.org)).

**Recycled Types**

**PreC** Pre-consumer recycled content  
**PostC** Post-consumer recycled content  
**UNK** Inclusion of recycled content is unknown  
**None** Does not include recycled content

**Other Terms:**

**GHS SDS** Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

**Inventory Methods:**

**Nested Method / Material Threshold** Substances listed within each material per threshold indicated per material  
**Nested Method / Product Threshold** Substances listed within each material per threshold indicated per product  
**Basic Method / Product Threshold** Substances listed individually per threshold indicated per product

**Nano** Composed of nano scale particles or nanotechnology  
**Third Party Verified** Verification by independent certifier approved by HPDC  
**Preparer** Third party preparer, if not self-prepared by manufacturer  
**Applicable facilities** Manufacturing sites to which testing applies

*The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:*

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

*Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.*

*The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.*

*The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.*