

HPD UNIQUE IDENTIFIER: 284422909952

CLASSIFICATION: 09 67 23 Resinous Flooring

PRODUCT DESCRIPTION: KEY #470 is a two component, ultra high solids, aliphatic polyaspartic polyurea designed to provide high gloss, UV light stable (non-yellowing), high temperature resistance and chemical resistant protection. KEY #470 is a superior, new generation resin exhibiting fast cure time and excellent stain resistance. KEY #470 has very low odor and can be applied indoors in occupied areas. KEY #470 can be used as a clear or pigmented high gloss finish coating on various Key Resin Systems.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Table with 4 columns: Inventory Reporting Format, Threshold Level, Residuals/Impurities Evaluation, and screening options (Characterized, Screened, Identified).

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®.

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

PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE

KEY #470 POLYASPARTIC COATING [DESMOPHEN XP 7068 LT-P1]
MUL HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYMER [LT-P1] SKI
PPG-2 METHYL ETHER ACETATE [LT-UNK] ASPARTIC ACID, N,N'-
(METHYLENEBIS(2-METHYL-4,1-CYCLOHEXANEDIYL))BIS-, 1,1',4,4'-
TETRAETHYL ESTER [LT-P1] MUL 2-BUTENEDIOIC ACID (E)-,
DIETHYL ESTER [LT-P1] MUL | MAM | AQU SILOXANES AND
SILICONES, DI-ME, REACTION PRODUCTS WITH SILICA [LT-UNK]
1,3,3-TRIMETHYL-N-(2-METHYLPROPYLIDENE)-5-[(2-
METHYLPROPYLIDENE)AMINO]CYCLOHEXANEMETHYLAMINE [LT-
UNK] SKI | EYE ZEOLITES [LT-UNK] MAM PROPYLENE CARBONATE
BM-3 | EYE 2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE
BM-2 | END | AQU DIMETHYL GLUTARATE BM-2 | EYE 2-[4-(4-AMINO-
CYCLOHEXYLMETHYL)-CYCLOHEXYLAMIDO]-SUCCINIC ACID
DIETHYL ESTER NoGS]

INVENTORY AND SCREENING NOTES:

This HPD was generated with basic inventory information

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): < 100, compliant to low VOC Rule 1113 in all 50 states
Regulatory (g/l): < 100, 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

Pre-checked for LEED v4 Option 1.
Pre-checked for LEED v4.1 Option 1.

Summary table with 3 columns: Third Party Verified?, PREPARER: Self-Prepared, SCREENING DATE: 2024-06-12

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

KEY #470 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:

DESMOPHEN XP 7068

ID: 136210-30-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: 2024-06-12 11:31:25

%: 42.6500 - 49.1500

GreenScreen: **LT-P1**

RC: **None**

NANO: **No**

SUBSTANCE ROLE: **Binder**

HAZARD TYPE

LIST NAME AND SOURCE

WARNINGS

MUL

German FEA - Substances Hazardous to Waters

Class 3 - Severe Hazard to Waters

ADDITIONAL LISTINGS

LIST NAME AND SOURCE

NOTIFICATION

None found

No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYMER

ID: 28182-81-2

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: 2024-06-12 11:31:25

%: 31.8600 - 35.4000

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:

PPG-2 METHYL ETHER ACETATE

ID: 88917-22-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: 2024-06-12 11:31:25

%: 6.4700 - 9.7000

GreenScreen: **LT-UNK**

RC: **None**

NANO: **No**

SUBSTANCE ROLE: **Binder**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents
SUBSTANCE NOTES:		

ASPARTIC ACID, N,N'-(METHYLENEBIS(2-METHYL-4,1-CYCLOHEXANEDIYL))BIS-, 1,1',4,4'-TETRAETHYL ESTER

ID: 136210-32-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-06-12 11:31:25**

%: 2.5900 - 5.1700

GreenScreen: **LT-P1**

RC: **None**

NANO: **No**

SUBSTANCE ROLE: **Binder**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
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: **2024-06-12 11:31:25**

%: 1.9400 - 4.5300

GreenScreen: **LT-P1**

RC: **None**

NANO: **No**

SUBSTANCE ROLE: **Plasticizer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
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:		

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-06-12 11:31:26**

#: **1.9400 - 4.5300** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Defoamer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

1,3,3-TRIMETHYL-N-(2-METHYLPROPYLIDENE)-5-[(2-METHYLPROPYLIDENE)AMINO]CYCLOHEXANEMETHYLAMINE

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-06-12 11:31:26**

#: **1.9400 - 4.5300** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	GHS - New Zealand	Skin corrosion category 1C
EYE	GHS - New Zealand	Serious eye damage category 1

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

ZEOLITES

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2024-06-12 11:31:26**

#: **0.6500 - 3.2400** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Accelerator**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

PROPYLENE CARBONATE

ID: 108-32-7

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-06-12 11:31:27**%: **0.5200 - 1.0400** GreenScreen: **BM-3** RC: **None** NANO: **No** SUBSTANCE ROLE: **Plasticizer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
EYE	GHS - New Zealand	Eye irritation category 2
EYE	GHS - Australia	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents

SUBSTANCE NOTES:

2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE

ID: 6846-50-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-06-12 11:31:27**%: **0.5200 - 1.0400** GreenScreen: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Plasticizer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents

SUBSTANCE NOTES:

DIMETHYL GLUTARATE

ID: 1119-40-0

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**HAZARD SCREENING DATE: **2024-06-12 11:31:27**%: **0.5200 - 1.0400** GreenScreen: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Plasticizer**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	GHS - New Zealand	Eye irritation category 2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents

SUBSTANCE NOTES:

2-[4-(4-AMINO-CYCLOHEXYLMETHYL)-CYCLOHEXYLAMIDO]-SUCCINIC ACID DIETHYL ESTER

ID: **Not registered**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2024-06-12 11:31:27**

#: **0.5200 - 1.0400** GreenScreen: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

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 00:00:00	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 00:00:00	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
 COUNTRY: **United States**

WEBSITE: **www.keyresin.com**
 CONTACT NAME: **Travis Barkey**
 TITLE: **Technical Director**
 PHONE: **15139434225**
 EMAIL: **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

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible 1 (Possible Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS No GreenScreen.
BM-U 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, and Best Practices for Hazard Screening on the HPDC website (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

