

HPD UNIQUE IDENTIFIER: 24274

CLASSIFICATION: 04 05 13.23 Surface Bonding Masonry Mortaring

PRODUCT DESCRIPTION: DURAL 452 MV is a two-component, 100% solids, moisture insensitive, high strength epoxy adhesive and binder for numerous applications. This high modulus, medium viscosity epoxy resin is the perfect solution for bonding new, plastic concrete to existing concrete slabs and steel.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Table with 4 columns: Inventory Reporting Format, Threshold level, Residuals/Impurities, and screening options. Includes radio buttons for 'Basic Method', '1,000 ppm', 'Per GHS SDS', 'Other', 'Considered', 'Partially Considered', 'Not Considered', 'Explanation(s) provided for Residuals/Impurities?', 'Yes', 'No', '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®. 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.

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

DURAL 452 MV, PART B [1,2-DIAMINOCYCLOHEXANE LT-UNK 4,4-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH CYCLOHEX-1,2-YLENEDIAMINE NoGS 4-NONYLPHENOL (BRANCHED) LT-1 | AQU | END | MUL | REP | DEV | SKI | PBT BENZYL ALCOHOL BM-2 FORMALDEHYDE, POLYMER WITH 1,3-DIMETHYLBENZENE LT-UNK P-TERT-BUTYLPHENOL LT-1 | AQU | END | SKI | REP | MUL | EYE DINONYL PHENOL LT-P1 | AQU | END | MUL | REP | DEV | SKI 1,3-BENZENEDIMETHANAMINE LT-P1 | SKI | MUL 1,3-CYCLOHEXANEDIMETHANAMINE LT-UNK PHENOL, 2-NONYL-, BRANCHED LT-P1 | AQU | END | MUL | REP | DEV | SKI]

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen Benchmark or List translator Score ... LT-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This Health Product Declaration (HPD) was completed in accordance with the HPD Standard version 2.2 using HPDC Builder. The HPD discloses hazards associated with all substances present at or above 1000 parts per million (ppm) in the product, along with the role and weight percent. Therefore, this HPD qualifies for the LEED v4 MR credit Building Product Disclosure and Optimization: Material Ingredient Reporting (Option 1).

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: VOC Emissions
VOC content: VOC Content

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

- Yes
No

PREPARER: Self-Prepared

VERIFIER:
VERIFICATION #:

SCREENING DATE: 2021-04-05

PUBLISHED DATE: 2021-04-05

EXPIRY DATE: 2024-04-05

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 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

DURAL 452 MV, PART B

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals or impurities above disclosure threshold that are known, or expected to be present, have been disclosed (if above reporting threshold) based on information provided to us by our suppliers.

OTHER PRODUCT NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

1,2-DIAMINOCYCLOHEXANE

ID: 694-83-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-04-05 10:08:14

#: 20.0000 - 40.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

4,4-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH CYCLOHEX-1,2-YLENEDIAMINE

ID: 87041-44-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-04-05 10:08:57

#: 20.0000 - 40.0000 GS: NoGS RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

4-NONYLPHENOL (BRANCHED)

ID: 84852-15-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-04-05 10:09:34

#: 20.0000 - 40.0000 GS: LT-1 RC: None NANO: No SUBSTANCE ROLE: Plasticizer

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
AQU	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
AQU	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
END	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
MUL	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
MUL	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
END	ChemSec - SIN List	Endocrine Disruption
REP	US EPA - PPT Chemical Action Plans	Reproductive effects
AQU	US EPA - PPT Chemical Action Plans	Highly toxic to aquatic organisms
DEV	US EPA - PPT Chemical Action Plans	Developmental Effects
MUL	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
SKI	EU - GHS (H-Statements)	H314 - Causes severe skin burns and eye damage
REP	EU - GHS (H-Statements)	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Substance of Possible Concern
PBT	ChemSec - SIN List	PBT / vPvB (Persistent, Bioaccumulative, & Toxic / very Persistent & very Bioaccumulative)
END	EU - SVHC Authorisation List	Equivalent Concern - Candidate List

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

BENZYL ALCOHOL

ID: 100-51-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 10:10:07**
 %: **10.0000 - 30.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

FORMALDEHYDE, POLYMER WITH 1,3-DIMETHYLBENZENE

ID: 26139-75-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 10:10:42**
 %: **1.0000 - 15.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

P-TERT-BUTYLPHENOL

ID: 98-54-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 10:11:22**

#: **1.0000 - 10.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Processing regulator**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
AQU	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
END	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Substance of Possible Concern
END	ChemSec - SIN List	Endocrine Disruption
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
REP	EU - GHS (H-Statements)	H361f - Suspected of damaging fertility
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
SKI	EU - GHS (H-Statements)	H315 - Causes skin irritation
EYE	EU - GHS (H-Statements)	H318 - Causes serious eye damage
END	EU - Priority Endocrine Disruptors	Category 2 - In vitro evidence of biological activity related to Endocrine Disruption

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

DINONYL PHENOL

ID: 1323-65-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 10:12:08**

#: **1.0000 - 10.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Plasticizer**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
AQU	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
AQU	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
END	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
MUL	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
MUL	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
REP	US EPA - PPT Chemical Action Plans	Reproductive effects
AQU	US EPA - PPT Chemical Action Plans	Highly toxic to aquatic organisms
DEV	US EPA - PPT Chemical Action Plans	Developmental Effects
SKI	EU - GHS (H-Statements)	H314 - Causes severe skin burns and eye damage
REP	EU - GHS (H-Statements)	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

1,3-BENZENEDIMETHANAMINE

ID: 1477-55-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-04-05 10:46:41		
#: 1.0000 - 10.0000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Accelerator
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization		
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters		

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

1,3-CYCLOHEXANEDIMETHANAMINE

ID: 2579-20-6

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-04-05 10:48:18		
#: 1.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Accelerator
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: Component substances are listed in percent by weight ranges to protect proprietary formulation information.

PHENOL, 2-NONYL-, BRANCHED

ID: 91672-41-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-04-05 10:48:52		
#: 1.0000 - 10.0000	GS: LT-P1	RC: None	NANO: No	SUBSTANCE ROLE: Plasticizer

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
AQU	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
AQU	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
END	OSPAR - Priority PBTs & EDs & equivalent concern	Endocrine Disruptor - Chemical for Priority Action
MUL	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
MUL	US EPA - PPT Chemical Action Plans	TSCA Work Plan chemical - Action Plan in development
REP	US EPA - PPT Chemical Action Plans	Reproductive effects
AQU	US EPA - PPT Chemical Action Plans	Highly toxic to aquatic organisms
DEV	US EPA - PPT Chemical Action Plans	Developmental Effects
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
SKI	EU - GHS (H-Statements)	H314 - Causes severe skin burns and eye damage
REP	EU - GHS (H-Statements)	H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child

SUBSTANCE NOTES: 1,3-Cyclohexanedimethanamine

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	VOC Emissions
CERTIFYING PARTY: Self-declared APPLICABLE FACILITIES: All Euclid facilities. CERTIFICATE URL:	ISSUE DATE: 2021-04-05 EXPIRY DATE: CERTIFIER OR LAB: N/A
CERTIFICATION AND COMPLIANCE NOTES: This product has not been tested for VOC emissions.	

VOC CONTENT	VOC Content
CERTIFYING PARTY: Self-declared APPLICABLE FACILITIES: All Euclid facilities. CERTIFICATE URL:	ISSUE DATE: 2021-04-05 EXPIRY DATE: CERTIFIER OR LAB: N/A
CERTIFICATION AND COMPLIANCE NOTES: When appropriately mixed with the other part, the calculated VOC less, water and exempt solvent, is 104 g/l.	

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

This product contains the following LBC V3.1 Red List substances: 4-nonylphenol and Formaldehyde, polymer with 1,3-dimethylbenzene.

MANUFACTURER INFORMATION

MANUFACTURER: The Euclid Chemical Company
ADDRESS: 19215 Redwood Road
Cleveland Ohio 44110, United States
WEBSITE: www.euclidchemical.com

CONTACT NAME: Glenn Strasshofer
TITLE: Director of EHS
PHONE: 216-531-9222
EMAIL: gstrasshofer@euclidchemical.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-1 List Translator 1 (Likely Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
BM-2 Benchmark 2 (use but search for safer substitutes)	NoGS No GreenScreen.
BM-1 Benchmark 1 (avoid - chemical of high concern)	
BM-U Benchmark Unspecified (due to insufficient data)	
LT-P1 List Translator Possible 1 (Possible Benchmark-1)	

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.