DURAL 452 MV, Part A
by The Euclid Chemical Company

Health Product Declaration v2.2

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 24273
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

Inventory Reporting Format
- ○ Nested Materials Method
- ◉ Basic Method

Threshold Disclosed Per
- ○ Material
- ◉ Product

Threshold level
- ○ 100 ppm
- ◉ 1,000 ppm
- ○ Per GHS SDS
- ○ Other

Residuals/Impurities
- ◉ Considered
- ○ Partially Considered
- ○ Not Considered

Explanation(s) provided for Residuals/Impurities?
- ◉ Yes ○ No

All Substances Above the Threshold Indicated Are:

Characterized ○ Yes Ex/SC ◉ Yes ○ No

% weight and role provided for all substances.

Screened ○ Yes Ex/SC ◉ Yes ○ No

All substances screened using Priority Hazard Lists with results disclosed.

Identified ○ Yes Ex/SC ◉ Yes ○ No

All substances disclosed by Name (Specific or Generic) and Identifier.

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 A [BISPHENOL A EPICHLOROHYDRIN POLYMER LT-P1 | SKI | EYE | AQU | MUL ((2-METHYLPHENOXY)METHYL)OXIRANE LT-P1 | GEN | SKI | AQU | MUL TITANIUM DIOXIDE LT-1 | CAN | END ARALDITE B LT-P1 | END SILOXANES AND SILICONES, DI-ME, REACTION PRODUCTS WITH SILICA LT-UNK QUATERNARY AMMONIUM COMPOUNDS, BENZYL(HYDROGENATED TALLOW ALKYL)DIMETHYL, CHLORIDES, COMPDS. WITH BENTONITE BM-2 | RES ALUMINUM HYDROXIDE, DRIED BM-2 *SILICON DIOXIDE* BM-1 | CAN CARBON BLACK BM-1 | CAN]

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

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-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 A

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.

BISPHENOL A EPICHLOROHYDRIN POLYMER ID: 25068-38-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 7:40:32**

%: **70.0000 - 90.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKI	EU - GHS (H-Statements)	H315 - Causes skin irritation
EYE	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
AQU	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKI	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction

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

((2-METHYLPHENOXY)METHYL)OXIRANE ID: 2210-79-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 7:54:26**

%: **1.0000 - 10.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Diluent**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
GEN	EU - GHS (H-Statements)	H341 - Suspected of causing genetic defects
SKI	EU - GHS (H-Statements)	H315 - Causes skin irritation
AQU	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKI	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction

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

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 7:54:59**

%: **1.0000 - 10.0000** GS: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

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

ARALDITE B

ID: 25085-99-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 7:55:40**

%: **1.0000 - 10.0000** GS: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Binder**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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.

SILOXANES AND SILICONES, DI-ME, REACTION PRODUCTS WITH SILICA

ID: 67762-90-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 7:56:15**

%: **0.1000 - 1.0000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Viscosity modifier**

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.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL(HYDROGENATED TALLOW ALKYL)DIMETHYL, CHLORIDES, COMPDS. WITH BENTONITE

ID: 71011-24-0

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 8:38:02**

%: **0.1000 - 1.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Viscosity modifier**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced

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

ALUMINUM HYDROXIDE, DRIED

ID: 21645-51-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 8:38:45**

%: **0.1000 - 1.0000** GS: **BM-2** RC: **None** NANO: **No** SUBSTANCE ROLE: **Fixing agent**

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.

SILICON DIOXIDE

ID: 7631-86-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 8:42:59**

%: **Impurity/Residual** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	GHS - Australia	H350i - May cause cancer by inhalation
CAN	GHS - Japan	Carcinogenicity - Category 1A [H350]

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

CARBON BLACK

ID: 1333-86-4

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-04-05 8:43:31**

%: **0.1000 - 1.0000** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Pigment**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources

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

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: Bisphenol A Polyglycidyl Ether Resin and Epichlorohydrin Polymer.

Section 6: References

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
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)
LT-1 List Translator 1 (Likely Benchmark-1)
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.)
NoGS No GreenScreen.

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.