

HPD UNIQUE IDENTIFIER: 23748

CLASSIFICATION: 08 79 00 Hardware Accessories

PRODUCT DESCRIPTION: Marray TEF Series Power Transfer Hinge is engineered to be used in the operation of access control and integrated locking systems. The uses of this product include, but are not limited to; electric locks, electric strikes, electric latch retraction exit devices, switch bars and other related access control and security devices. This device provides a secure and non-obvious way of transmitting power from the jamb side of the door, to the device needing power actuation.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold level	Residuals/Impurities	<i>All Substances Above the Threshold Indicated Are:</i> Characterized <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No % weight and role provided for all substances. Screened <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No All substances screened using Priority Hazard Lists with results disclosed. Identified <input type="radio"/> Yes Ex/SC <input type="radio"/> Yes <input checked="" type="radio"/> No One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.
<input checked="" type="radio"/> Nested Materials Method	<input type="radio"/> 100 ppm	Residuals/Impurities	
<input type="radio"/> Basic Method	<input checked="" type="radio"/> 1,000 ppm	Considered in 7 of 7 Materials	
Threshold Disclosed Per	<input type="radio"/> Per GHS SDS	Explanation(s) provided for Residuals/Impurities?	
<input type="radio"/> Material	<input type="radio"/> Other	<input checked="" type="radio"/> Yes <input type="radio"/> No	
<input checked="" type="radio"/> Product			

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
STRUCTURAL STEEL [STEEL NoGS LUBRICATING GREASES LT-1 | CAN]
HARDWARE STEEL [STEEL NoGS]
SC:ELECTRONICS;SMALLELECTRONICS COPPER WIRES [COPPER LT-P1 | AQU | MUL SILVER ALLOY, AG,HG LT-1 | DEV | PBT]
WIRE JACKET [COPPER LT-P1 | AQU | MUL]
ALTERNATIVE GREASE UNDISCLOSED [2-BUTANONE, 2,2',2''-(O,O',O''-(ETHENYLSILYLIDYNE)TRIOXIME) BM-1tp AMINOETHYL-AMINOPROPYL-TRIMETHOXYSILANE LT-UNK INDEX NAME NOT YET ASSIGNED NoGS SILICON DIOXIDE BM-1 | CAN 2-BUTANONE, 2,2',2''-(O,O',O''-(METHYLSILYLIDYNE)TRIOXIME) LT-UNK]

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:

All substances screened using Priority Hazard Lists with results disclosed except SC substances screened according to SC guidance.

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: UL Environmental Claim Validation - Recycled content

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:
 VERIFICATION #:

SCREENING DATE: 2021-02-09

PUBLISHED DATE: 2021-02-10

EXPIRY DATE: 2024-02-09

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

STRUCTURAL STEEL

#: 75.5000 - 86.1000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered and determined to be below the 1000 ppm threshold

OTHER MATERIAL NOTES: RESIDUALS AND IMPURITIES WERE CONSIDERED. Substances in this material are below the reportable threshold.

STEEL

ID: 12597-69-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-02-09

#: 15.0000 - 17.0000

GS: NoGS

RC: UNK

NANO: No

SUBSTANCE ROLE: Structure component

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

LUBRICATING GREASES

ID: 74869-21-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2021-02-09

#: 0.0200 - 0.0300

GS: LT-1

RC: UNK

NANO: No

SUBSTANCE ROLE: Lubricant

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

CAN

EU - GHS (H-Statements)

H350 - May cause cancer

CAN

EU - REACH Annex XVII CMRs

Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man

CAN

EU - Annex VI CMRs

Carcinogen Category 1B - Presumed Carcinogen based on animal evidence

CAN

GHS - Australia

H350 - May cause cancer

SUBSTANCE NOTES:

HARDWARE STEEL

#: 14.0000 - 16.0000

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered and determined to be below the 1000 ppm threshold

OTHER MATERIAL NOTES: STEEL - 12597.69-2 All substances in this material are below the reportable threshold.

STEEL

ID: 12597-69-2

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-02-09**

%: **75.0000 - 85.0000** GS: **NoGS** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Hardware**

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

SUBSTANCE NOTES:

SC:ELECTRONICS;SMALLELECTRONICS %: **3.5000**

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Electronic Component

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered and determined to be below the 1000 ppm threshold

OTHER MATERIAL NOTES: SpecialConditionApplied:Electronics
All substances in this material are below the reportable threshold.

SUBSTANCE NOTES:
Brief Description: Wires and connectors used for hard wiring the door hinge into the building access control and power system.

COPPER WIRES %: **0.5000**

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered and determined to be below the 1000 ppm threshold

OTHER MATERIAL NOTES: Multi strand silver coated copper wire. All substances in this material are below the reportable threshold.

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-02-09**%: **0.5000 - 0.6000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Electronic component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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

SUBSTANCE NOTES: Silver coated conductive wires for passing power

SILVER ALLOY, AG,HG

ID: 12778-65-3

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-02-09**%: **0.1000 - 0.1000** GS: **LT-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Electronic component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEV	CA EPA - Prop 65	Developmental toxicity
PBT	US EPA - Toxics Release Inventory PBTs	PBT
PBT	OSPAR - Priority PBTs & EDs & equivalent concern	PBT - Chemical for Priority Action

SUBSTANCE NOTES: Thin coating of silver over copper wires for greater current carrying capacity

WIRE JACKET%: **0.5000**

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Electronic Component

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered and determined to be below the 1000 ppm threshold.

OTHER MATERIAL NOTES: STYLE PTFE UL 1371 TEFLON WIRE JACKET

Melting Point 327-372 °C (621-648 °F)

Flash Point (Method used) 530-550 °C (986-1022 °F), ASTM D1929

Auto Ignition temperature 520-560 °C (968-1040 °F), ASTM D1929

All substances in this material are below the reportable threshold.

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-02-09**%: **0.1000 - 0.1000** GS: **LT-P1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Electronic component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
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

SUBSTANCE NOTES: PTFE jacket over silver coated wires

ALTERNATIVE GREASE

%: 0.2500 - 0.3000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Geologically Derived Material

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered and were determined to be below the 1000 ppm threshold

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold.

UNDISCLOSED

%: 0.1000

PRODUCT THRESHOLD: 1000 ppm RESIDUALS AND IMPURITIES CONSIDERED: Yes MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities were considered and determined to be below the 1000 ppm threshold

OTHER MATERIAL NOTES: All substances in this material are below the reportable threshold.

Used as a potting compound to provide strain relief for the wire bundle exiting the surface of the hinge on both leaves.

MSDS Number: 639915-00004

P333 + 313 skin irritant. May cause skin rash when applied (this is only applied in factory)

2-BUTANONE, 2,2',2''-(O,O',O''-(ETHENYLSILYLIDYNE)TRIOXIME)

ID: 2224-33-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-02-09

%: 0.1000 - 0.1000 GS: BM-1tp RC: UNK NANO: No SUBSTANCE ROLE: Adhesive

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

SUBSTANCE NOTES: Used as part of the component chemicals in the adhesive to keep wires from being pulled out of the hinge outbound hole and provide strain relief

AMINOETHYL-AMINOPROPYL-TRIMETHOXYSILANE

ID: 1760-24-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-02-09

%: 0.1000 - 0.1000 GS: LT-UNK RC: UNK NANO: No SUBSTANCE ROLE: Adhesive

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

SUBSTANCE NOTES: Used as a component chemical for the adhesive potting compound to keep the wires from being abraded or pulled from the outbound wire hole.

INDEX NAME NOT YET ASSIGNED

ID: 1980039-46-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-02-09

%: 0.1000 - 0.1000 GS: NoGS RC: UNK NANO: No SUBSTANCE ROLE: Adhesive

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

SUBSTANCE NOTES: Used as a component for the MASTER black silicon adhesive to ensure the outbound wires do not pull from the hinge leaf hole. Provides strain relief.

SILICON DIOXIDE

ID: 7631-86-9

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-02-09**

%: **0.0100 - 0.0200** GS: **BM-1** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Adhesive**

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

SUBSTANCE NOTES: Used to ensure wires are bonded to the hinge leaf on both sides and provide strain relief to the wire bundle.

A component of the MASTER black silicon adhesive

2-BUTANONE, 2,2',2''-(O,O',O''-(METHYLSILYLIDYNE)TRIOXIME) ID: **22984-54-9**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-02-09**

%: **0.0100 - 0.0200** GS: **LT-UNK** RC: **UNK** NANO: **No** SUBSTANCE ROLE: **Adhesive**

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

SUBSTANCE NOTES: A component i used in the Master Black Silicon Adhesive

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

UL Environmental Claim Validation - Recycled content

CERTIFYING PARTY: Self-declared
APPLICABLE FACILITIES: All Facilities
CERTIFICATE URL:

ISSUE DATE: 2021-02-09
EXPIRY DATE:

CERTIFIER OR LAB: Self-Declared

CERTIFICATION AND COMPLIANCE NOTES: Inherently non-emitting source per LEED

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 Health Product Declaration was prepared by utilizing available data regarding included materials and substances

MANUFACTURER INFORMATION

MANUFACTURER: Marray, Inc.
ADDRESS: 52 Laxalt Drive
 Carson City Nevada 89706, United States
WEBSITE: <https://marray.com/electrified-hinges/tef2-4c/652-us26d-satin-chrome-c62/>

CONTACT NAME: Ray Zehrung
TITLE: President
PHONE: 7752468003
EMAIL: RAY@MARRAY.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.