

CLASSIFICATION: 09 96 00 High Performance Coatings

PRODUCT DESCRIPTION: Aromatic Urethane, Zinc-Rich: A single-component, moisture-cured, zinc-rich primer for steel structures, including the interior and exterior of steel potable water tanks. Provides outstanding long-term corrosion resistance when used as a primer in conjunction with other Tnemec coatings. It cures quickly and offers rapid recoat at surface temperatures down to 35°F. Note: When used in conjunction with cathodic protection, anodes or impressed current systems should not provide current demand more negative than -1.05 volts relative to a copper-copper sulfate reference electrode half-cell.

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
- Per OSHA MSDS
- Other

Residuals/Impurities

- Considered
- Partially Considered
- Not Considered

Explanation(s) provided for Residuals/Impurities?

- Yes No

Are All Substances Above the Threshold Indicated:

Characterized Yes No

Percent Weight and Role Provided?

Screened Yes No

Using Priority Hazard Lists with Results Disclosed?

Identified Yes No

Name and Identifier Provided?

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

SERIES 94-H2O HYDRO-ZINC [ZINC LT-P1 | AQU | MUL | END | PHY
PARACHLOROBENZOTRIFLUORIDE (PCBTF) LT-P1 | MUL
DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER LT-UNK
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER LT-UNK | RES | MUL | SKI | EYE | CAN
YELLOW IRON OXIDE LT-UNK ZINC OXIDE BM-1 | RES | AQU | MUL
XYLENES BM-1 | SKI | END | MUL | REP
POLYMERIC MDI (PMDI) LT-UNK | RES | MUL | CAN
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER LT-UNK | MUL | SKI | EYE | RES | CAN
ETHYLBENZENE BM-2 | CAN | MAM | SKI | REP | PHY
P-TOLUENESULFONYL ISOCYANATE LT-UNK | SKI | EYE | RES
QUARTZ LT-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:

Material disclosure is per GHS SDS.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

Material (g/l): 62 Regulatory (g/l): 89
Does the product contain exempt VOCs: Yes
Are ultra-low VOC tints available: N/A

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: CDPH/EHLB Standard Method v1.1 (2010) Emissions Testing

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:
VERIFICATION #:

SCREENING DATE: 2018-05-21

PUBLISHED DATE: 2018-05-23

EXPIRY DATE: 2021-05-21



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 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

SERIES 94-H20 HYDRO-ZINC

PRODUCT THRESHOLD: Per GHS SDS

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities are reported when disclosed on supplier SDS and they exceed the GHS reporting threshold.

OTHER PRODUCT NOTES: This HPD covers the product as applied without thinning.

ZINC

ID: 7440-66-6

%: 60.0000 - 100.0000	GS: LT-P1	RC: None	NANO: No	ROLE: Pigment
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life		
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects		
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters		
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor		
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air		
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H260 - In contact with water releases flammable gases which may ignite spontaneously		

SUBSTANCE NOTES: Product is in liquid or paste form and health hazards related to dust are not considered significant. The exact percentage (concentration) of composition has been withheld as a trade secret. The range given is greater than 20% to reflect the range given on GHS SDS.

PARACHLOROBENZOTRIFLUORIDE (PCBTF)

ID: 98-56-6

%: 10.0000 - 30.0000	GS: LT-P1	RC: None	NANO: No	ROLE: Solvent
HAZARDS:	AGENCY(IES) WITH WARNINGS:			
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters		

SUBSTANCE NOTES: This component is VOC Exempt. The exact percentage (concentration) of composition has been withheld as a trade secret.

DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER

ID: 67815-87-6

%: 1.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	ROLE: Binder
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: The exact percentage (concentration) of composition has been withheld as a trade secret.

DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER

ID: 101-68-8

%: 1.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	ROLE: Binder
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (G) - generally accepted

RESTRICTED LIST

US EPA - PPT Chemical Action Plans

EPA Chemical of Concern - Action Plan published

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SKIN SENSITIZE

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

EYE IRRITATION

EU - GHS (H-Statements)

H319 - Causes serious eye irritation

RESPIRATORY

EU - GHS (H-Statements)

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

RESPIRATORY

US EPA - PPT Chemical Action Plans

Inhalation sensitizer causing asthma and lung damage

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

RESPIRATORY

MAK

Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: The exact percentage (concentration) of composition has been withheld as a trade secret.

YELLOW IRON OXIDE

ID: 51274-00-1

%: 1.0000 - 10.0000	GS: LT-UNK	RC: None	NANO: No	ROLE: Pigment
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HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: The exact percentage (concentration) of composition has been withheld as a trade secret.

ZINC OXIDE

ID: 1314-13-2

%: 1.0000 - 10.0000	GS: BM-1	RC: None	NANO: No	ROLE: Pigment
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HAZARDS:	AGENCY(IES) WITH WARNINGS:	
RESPIRATORY	AOEC - Asthmagens	Asthmagen (ARs) - sensitizer-induced - inhalable forms only
ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

SUBSTANCE NOTES: Product is in liquid or paste form and health hazards related to dust are not considered significant. The exact percentage (concentration) of composition has been withheld as a trade secret.

XYLENES

ID: 1330-20-7

#: 1.0000 - 10.0000 GS: **BM-1** RC: **None** NANO: **No** ROLE: **Solvent**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REPRODUCTIVE	Japan - GHS	Toxic to reproduction - Category 1B

SUBSTANCE NOTES: The exact percentage (concentration) of composition has been withheld as a trade secret.

POLYMERIC MDI (PMDI)

ID: 9016-87-9

#: 1.0000 - 10.0000 GS: **LT-UNK** RC: **None** NANO: **No** ROLE: **Binder**

HAZARDS:	AGENCY(IES) WITH WARNINGS:	
RESPIRATORY	AOEC - Asthmagens	Asthmagen (G) - generally accepted
RESTRICTED LIST	US EPA - PPT Chemical Action Plans	EPA Chemical of Concern - Action Plan published
RESPIRATORY	US EPA - PPT Chemical Action Plans	Inhalation sensitizer causing asthma and lung damage
CANCER	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels
RESPIRATORY	MAK	Sensitizing Substance Sah - Danger of airway & skin sensitization

SUBSTANCE NOTES: The exact percentage (concentration) of composition has been withheld as a trade secret.

DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER

ID: 26447-40-5

%: **0.1000 - 1.0000**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Binder**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESTRICTED LIST

US EPA - PPT Chemical Action Plans

EPA Chemical of Concern - Action Plan published

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SKIN SENSITIZE

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

EYE IRRITATION

EU - GHS (H-Statements)

H319 - Causes serious eye irritation

RESPIRATORY

EU - GHS (H-Statements)

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

CANCER

EU - GHS (H-Statements)

H351 - Suspected of causing cancer

RESPIRATORY

US EPA - PPT Chemical Action Plans

Inhalation sensitizer causing asthma and lung damage

SUBSTANCE NOTES: The exact percentage (concentration) of composition has been withheld as a trade secret.

ETHYLBENZENE

ID: **100-41-4**

%: **0.1000 - 1.0000**

GS: **BM-2**

RC: **None**

NANO: **No**

ROLE: **Solvent**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

IARC

Group 2b - Possibly carcinogenic to humans

CANCER

CA EPA - Prop 65

Carcinogen

MAMMALIAN

EU - GHS (H-Statements)

H304 - May be fatal if swallowed and enters airways

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H225 - Highly flammable liquid and vapour

SUBSTANCE NOTES: The exact percentage (concentration) of composition has been withheld as a trade secret.

P-TOLUENESULFONYL ISOCYANATE

ID: **4083-64-1**

%: **0.1000 - 1.0000**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Additive**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

EYE IRRITATION

EU - GHS (H-Statements)

H319 - Causes serious eye irritation

RESPIRATORY

EU - GHS (H-Statements)

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

QUARTZ

ID: 14808-60-7

#: **0.1000 - 1.0000** GS: **LT-1** RC: **None** NANO: **No** ROLE: **Pigment**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CANCER	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
CANCER	New Zealand - GHS	6.7A - Known or presumed human carcinogens
CANCER	Australia - GHS	H350 - May cause cancer
CANCER	Japan - GHS	Carcinogenicity - Category 1A
CANCER	Australia - GHS	H350i - May cause cancer by inhalation

SUBSTANCE NOTES: Product is in liquid or paste form and hazards related to dust are not considered significant. The exact percentage (concentration) of composition has been withheld as a trade secret.

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/EHLB Standard Method v1.1 (2010) Emissions Testing

CERTIFYING PARTY: **Self-declared**

ISSUE DATE: **2013-**

EXPIRY DATE:

CERTIFIER OR LAB: **UL**

APPLICABLE FACILITIES: **Approved for both Classroom or Private Office Scenario**

10-22

Environment

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **UL Environment Report # 17822-01**

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.

F041-0049 THINNER CLEAR

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

F041-0049 is the recommended thinner for low VOC applications. The VOC of F041-0049 is 0 g/L It is used to adjust application viscosity. This thinner consists of 100% VOC exempt solvent and has a Greenscreen score of LT-P1. Recommended usage level is 0-15% by volume.

Section 5: General Notes

This HPD encompasses the product as applied without thinning.



MANUFACTURER INFORMATION

MANUFACTURER: **Tnemec Company, Inc.**
 ADDRESS: **6800 Corporate Drive**
Kansas City Missouri 64120, United States
 WEBSITE: **tnemec.com**

CONTACT NAME: **Laura Burton**
 TITLE: **Group Leader, Product Development**
 PHONE: **816-326-4658**
 EMAIL: **burton@tnemec.com**

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

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

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible Benchmark 1
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator Likely Benchmark 1
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS Unknown (no data on List Translator Lists)
BM-U Benchmark Unspecified (insufficient data to benchmark)	

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

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.