

Health Product

Declaration v2.2 created via: HPDC Online Builder

3000 HT Fabric by Texstyle by Rollease Acmeda

HPD UNIQUE IDENTIFIER: 21097

CLASSIFICATION: 12 Furnishings

PRODUCT DESCRIPTION: Included in this HPD is the window shade fabric only. All assembly and system parts are excluded and appear in a separate HPD. This fabric can be used in roller shades and panel track applications to minimize the negative effects of the sun while preserving outward visibility. 3000HT solar screen fabrics have an openness factor of 3% or 5% with a thickness of 0.024 in +/-5% or 0.026 in +/-5% respectively.

🟮 Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
 Basic Method

Threshold Disclosed Per

- C Material
- Product
- O 100 ppm
 O 1,000 ppm
 O Per GHS SDS
 O Other

Threshold level

Residuals/Impurities

Considered in 8 of 8 Materials

Explanation(s) provided for Residuals/Impurities? All Substances Above the Threshold Indicated Are:

Characterized O Yes Ex/SC O Yes O No % weight and role provided for all substances.

Screened O Yes Ex/SC O Yes O No All substances screened using Priority Hazard Lists with results disclosed.

Identified O Yes Ex/SC O Yes O 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

PVC [POLYVINYL CHLORIDE LT-P1 | RES 1,2-PROPANEDIOL, POLYMER WITH 1,1'-METHYLENEBIS(4-ISOCYANATOBENZENE), 2-METHYLOXIRANE AND OXIRANE NOGS 1,3-BUTADIENE, 1-CHLORO-, POLYMER WITH 1,3-BUTADIENE AND 2-CHLORO-1,3-BUTADIENE LT-UNK 2-BUTENE LT-UNK PHY ACETYLENE LT-UNK | PHY BUTENE LT-UNK ETHYLENE DICHLORIDE (1,2-DICHLOROETHANE) LT-1 | CAN | PHY | SKI | EYE | MUL HYDROCHLORIC ACID BM-2 | RES | SKI | MAM IRON LT-P1 | END PROPYLENE BM-U | PHY | END SODIUM HYDROXIDE LT-P1 | SKI | PHY POLYETHYLENE TEPHTHALATE [POLYETHYLENE TEREPHTHALATE LT-UNK ANTIMONY TRIOXIDE BM-1 | CAN | MUL MANGANESE OXIDE LT-P1 | REP NITROGEN NoGS ZINC OXIDE BM-1 | RES | AQU | END | MUL] PLASTICIZER [DI(2-ETHYLHEXYL) TEREPHTHALATE BM-3 2-ETHYLHEXYL METHYL TEREPHTHALATE NoGS] CALCIUM CARBONATE [CALCIUM CARBONATE BM-3] TITANIUM DIOXIDE [TITANIUM DIOXIDE LT-1 | CAN | END] ZINC STEARATE [OCTADECANOIC ACID, ZINC SALT LT-UNK] ANTIMONY OXIDE [ANTIMONY OXIDE (ANTIMONY TRIOXIDE) ANTIMONY TRISULFIDE THI AQU | CAN ARSENIC, INORGANIC T-1 | DEL CAN | PBT | AQU | MAM | END | MUL | GEN COPPER T-UNK IRON T-P1 | END LEAD LT-1 | DEL | CAN | PBT | REP | MUL | END | GEN NICKEL (METALLIC) LT-1 | RES | CAN | SKI | MAM | MUL] ZINC PYRITHIONE [ZINC PYRITHIONE BM-1tp | MUL]

Residuals and impurities were screened using the toxnet and Pharos databases. This database is a general database and lists possible residuals and impurities for chemicals and substances as reported in peer-reviewed studies or other credible documentation. Just because a chemical could have

Number of Greenscreen BM-4/BM3 contents ... 2 Contents highest concern GreenScreen

Benchmark or List translator Score ... BM-1

INVENTORY AND SCREENING NOTES:

Nanomaterial ... No

studies or other credible documentation. Just because a chemical could hav the impurity listed in the database does not mean that this material contains that impurity. Actual impurities are a product of the sourced product and its suppliers. Residuals and impurities listed in the HPD are for information purposes only and are not 100% guaranteed to be present in the fabric.

This HPD is reporting substances to 100 ppm for this product 3000 HT.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT VOC Content data is not applicable for this product category.

3000 HT Fabric by Texstyle hpdrepository.hpd-collaborative.org CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings. VOC emissions: UL/GreenGuard Gold Certified

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abric only. All assemb



CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified? O Yes O No PREPARER: Self-Prepared VERIFIER: VERIFICATION #: SCREENING DATE: 2019-04-08 PUBLISHED DATE: 2020-07-23 EXPIRY DATE: 2022-04-08

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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

RODUCT THRESHOLD: 100 ppr	n RESIDUALS AND IMPURITIES CONSI	DERED: Yes	MATERIAL	TYPE: Polymeric Material
	s: Residuals and impurities were co RESIDUALS AND IMPURITIES SCRE	•	e toxnet d	atabase. For more inform
0.3 ppm; BUTADIENE <6	rities: ACETYLENE <2.0 ppm; ACIDI 6.0 ppm; 1-BUTENE <3.0 ppm; 2-BU 9 ppm; PROPYLENE <8.0 ppm; IRON	TENE <0.5% ppm	ı; ETHYLE	NE <4.0 ppm; ETHYLEN
POLYVINYL CHLORIDE				ID: 9002
HAZARD SCREENING METHOD: Pha	aros Chemical and Materials Library	HAZARD SCREENIN	g date: 2019	-04-08
%: 40.0000 - 60.0000	GS: LT-P1	RC: UNK	NANO: No	SUBSTANCE ROLE: Coating
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
RESPIRATORY	AOEC - Asthmagens	Asthmage	en (Rs) - sensi	itizer-induced
PROPYLENE <8.0 ppm; IR Additional information abc Julie Silas, and Jim Vallett	NON, BY wt <0.25 ppm/IMPURITY LEVEL II out residuals can be found here. all are liste e, Resilient Flooring & Chemical Hazards: . twork, April 2009. Available at: http://www.	N VINYL CHLORIDE ed as occasional or r A Comparative Analy	are without sis of Vinyl a	
PROPYLENE <8.0 ppm; IR Additional information abc Julie Silas, and Jim Vallett Care, Healthy Building Net ResilientFlooring&Chemica 1,2-PROPANEDIOL, POLYM	INN, BY wt <0.25 ppm/IMPURITY LEVEL II out residuals can be found here. all are liste e, Resilient Flooring & Chemical Hazards: twork, April 2009. Available at: http://www. alHazards-Report.pdf INN MITH 1,1'-METHYLENEBIS(4-	N VINYL CHLORIDE ed as occasional or r A Comparative Analy	are without sis of Vinyl a	actual percentages: Tom Len
PROPYLENE <8.0 ppm; IR Additional information abc Julie Silas, and Jim Vallett Care, Healthy Building Net ResilientFlooring&Chemica 1,2-PROPANEDIOL, POLYN ISOCYANATOBENZENE), 2	INN, BY wt <0.25 ppm/IMPURITY LEVEL II out residuals can be found here. all are listo e, Resilient Flooring & Chemical Hazards: twork, April 2009. Available at: http://www. alHazards-Report.pdf INNER WITH 1,1'-METHYLENEBIS(4- -METHYLOXIRANE AND OXIRANE	N VINYL CHLORIDE ed as occasional or n A Comparative Analy healthybuilding.net/o	are without sis of Vinyl a locs/HBN-	actual percentages: Tom Lem and Other Alternatives for Hea
PROPYLENE <8.0 ppm; IR Additional information abc Julie Silas, and Jim Vallett Care, Healthy Building Net ResilientFlooring&Chemica 1,2-PROPANEDIOL, POLYN ISOCYANATOBENZENE), 2	INN, BY wt <0.25 ppm/IMPURITY LEVEL II out residuals can be found here. all are liste e, Resilient Flooring & Chemical Hazards: twork, April 2009. Available at: http://www. alHazards-Report.pdf INN MITH 1,1'-METHYLENEBIS(4-	N VINYL CHLORIDE ed as occasional or n A Comparative Analy healthybuilding.net/o	are without sis of Vinyl a docs/HBN-	actual percentages: Tom Len and Other Alternatives for Hea
PROPYLENE <8.0 ppm; IR Additional information abc Julie Silas, and Jim Vallett Care, Healthy Building Net ResilientFlooring&Chemic: 1,2-PROPANEDIOL, POLYN ISOCYANATOBENZENE), 2 HAZARD SCREENING METHOD: Pha	NON, BY wt <0.25 ppm/IMPURITY LEVEL II put residuals can be found here. all are liste e, Resilient Flooring & Chemical Hazards: 1 twork, April 2009. Available at: http://www. alHazards-Report.pdf MER WITH 1,1'-METHYLENEBIS(4- -METHYLOXIRANE AND OXIRANE aros Chemical and Materials Library	N VINYL CHLORIDE ed as occasional or r A Comparative Analy healthybuilding.net/o	are without sis of Vinyl a docs/HBN-	actual percentages: Tom Len and Other Alternatives for Hea ID: 68083 DATE: 2019-04-08 SUBSTANCE ROLE:
PROPYLENE <8.0 ppm; IR Additional information abc Julie Silas, and Jim Vallett Care, Healthy Building Net ResilientFlooring&Chemica 1,2-PROPANEDIOL, POLYM ISOCYANATOBENZENE), 2 HAZARD SCREENING METHOD: Pha %: Impurity/Residual	IN IN IN INTERPORT INTITUTION INTERPORT INTITUTO INTERPORT INTITUTION INTA INTA INTITUTION INTERPO	N VINYL CHLORIDE ed as occasional or r A Comparative Analy healthybuilding.net/o HAZAR RC: UNK	are without a sis of Vinyl a docs/HBN-	actual percentages: Tom Len and Other Alternatives for Hea ID: 68083 DATE: 2019-04-08 SUBSTANCE ROLE:





SUBSTANCE NOTES: Impurities: ACETYLENE <2.0 ppm; ACIDITY, AS HCL BY wt <0.5 ppm; ALKALINITY, AS NaOH BY wt <0.3 ppm; BUTADIENE <6.0 ppm; 1-BUTENE <3.0 ppm; 2-BUTENE <0.5% ppm; ETHYLENE <4.0 ppm; ETHYLENE DICHLORIDE (EDC) <10.0 ppm; PROPYLENE <8.0 ppm; IRON, BY wt <0.25 ppm/IMPURITY LEVEL IN VINYL CHLORIDE

Additional information about residuals can be found here. all are listed as occasional or rare without actual percentages: Tom Lent, Julie Silas, and Jim Vallette, Resilient Flooring & Chemical Hazards: A Comparative Analysis of Vinyl and Other Alternatives for Health Care, Healthy Building Network, April 2009. Available at: http://www.healthybuilding.net/docs/HBN-ResilientFlooring&ChemicalHazards-Report.pdf

AZARD SCREENING METHOD:	Pharos (Chemical and Materials Library	H/	AZARD SC	REENING [DATE: 2019-04-08	
: Impurity/Residual		GS: LT-UNK	RC	D: I NK	NANO: No	SUBSTANCE ROLE: Impurity/Re	esidua
HAZARD TYPE		AGENCY AND LIST TITLES	w	ARNINGS			
None found					No wa	rnings found on HPD Priority Hazard	d Lists
BUTADIENE <6.0 ppm PROPYLENE <8.0 ppm Additional information Julie Silas, and Jim Va	i; 1-BUTE n; IRON, I about res illette, Res Network	TYLENE <2.0 ppm; ACIDITY, AS H NE <3.0 ppm; 2-BUTENE <0.5% p 3Y wt <0.25 ppm/IMPURITY LEVEI siduals can be found here. all are I silient Flooring & Chemical Hazard , April 2009. Available at: http://ww ards-Report.pdf	pm; ETHYLENE IN VINYL CHL sted as occasio s: A Comparativ	<4.0 pp ORIDE onal or r ve Analy	om; ETH are with vsis of Vi	YLENE DICHLORIDE (EDC) <10. out actual percentages: Tom Le inyl and Other Alternatives for He	nt,
-BUTENE	Dhoreo (Chamical and Mataziala Liburar			0010) 7-0 1
	Pharos	Chemical and Materials Library	HAZARD SCRE				
: Impurity/Residual		GS: LT-UNK	RC: UNK	NANO:	NO	SUBSTANCE ROLE: Impurity/Residua	ai
HAZARD TYPE		AGENCY AND LIST TITLES	W	ARNINGS			
PHYSICAL HAZARD (RE	ACTIVE)	EU - GHS (H-Statements)	Н	l220 - Ex	tremely f	flammable gas	
BUTADIENE <6.0 ppm PROPYLENE <8.0 ppm Additional information Julie Silas, and Jim Va	i; 1-BUTE n; IRON, B about res illette, Res Network	TYLENE <2.0 ppm; ACIDITY, AS H NE <3.0 ppm; 2-BUTENE <0.5% p 3Y wt <0.25 ppm/IMPURITY LEVEI siduals can be found here. all are I silient Flooring & Chemical Hazard , April 2009. Available at: http://ww ards-Report.pdf	pm; ETHYLENE _ IN VINYL CHL isted as occasio s: A Comparativ	<4.0 pp ORIDE onal or r ve Analy	om; ETH are with sis of Vi	YLENE DICHLORIDE (EDC) <10. out actual percentages: Tom Le inyl and Other Alternatives for He	nt,
CETYLENE						10:	74-86
	Dharea	Chemical and Materials Library	HAZARD SCRE	EENING DA	TE: 2019	9-04-08	
	Pharos						

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HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)		H220 - Extreme	ely flammable gas
BUTADIENE <6.0 ppm; 1-BUTE PROPYLENE <8.0 ppm; IRON, I Additional information about re- Julie Silas, and Jim Vallette, Re Care, Healthy Building Network ResilientFlooring&ChemicalHaz NaOH BY wt <0.3 ppm; BUTAD DICHLORIDE (EDC) <10.0 ppm; Additional information about re- Julie Silas, and Jim Vallette, Re	BY wt <0.25 ppm/IMPURITY LEVEL siduals can be found here. all are lis silient Flooring & Chemical Hazards , April 2009. Available at: http://www ards-Report.pdfImpurities: ACETYL IENE <6.0 ppm; 1-BUTENE <3.0 pp PROPYLENE <8.0 ppm; IRON, BY siduals can be found here. all are lis silient Flooring & Chemical Hazards , April 2009. Available at: http://www	m; ETHYLENI IN VINYL CHI ted as occasi : A Comparat v.healthybuild ENE <2.0 ppr m; 2-BUTENE wt <0.25 ppm ted as occasi : A Comparat	E <4.0 ppm; E LORIDE ional or rare w ive Analysis o ding.net/docs/ n; ACIDITY, A <0.5% ppm; /IMPURITY LI ional or rare w ive Analysis o	THYLENE DICHLORIDE (EDC) <10.0 ppm vithout actual percentages: Tom Lent, of Vinyl and Other Alternatives for Health /HBN- IS HCL BY wt <0.5 ppm; ALKALINITY, AS ETHYLENE <4.0 ppm; ETHYLENE EVEL IN VINYL CHLORIDE vithout actual percentages: Tom Lent, of Vinyl and Other Alternatives for Health
BUTENE				ID: 25167-67 -
iazard screening method: Pharos (Chemical and Materials Library GS: LT-UNK	HAZARD SCF	NANO: NO	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES	,	WARNINGS	
None found			No	warnings found on HPD Priority Hazard Lists
BUTADIENE <6.0 ppm; 1-BUTE PROPYLENE <8.0 ppm; IRON, I Additional information about re- Julie Silas, and Jim Vallette, Re-	BY wt <0.25 ppm/IMPURITY LEVEL siduals can be found here. all are lis silient Flooring & Chemical Hazards , April 2009. Available at: http://www	m; ETHYLENI IN VINYL CHI ted as occasi : A Comparat	E <4.0 ppm; E LORIDE ional or rare w ive Analysis o	THYLENE DICHLORIDE (EDC) <10.0 ppn vithout actual percentages: Tom Lent, if Vinyl and Other Alternatives for Health
THYLENE DICHLORIDE (1,2-DI	CHLOROETHANE)			ю: 107-06 -
AZARD SCREENING METHOD: Pharos	Chemical and Materials Library	HAZARD SCR	EENING DATE: 20	019-04-08
: Impurity/Residual	GS: LT-1	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Residual

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HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CANCER	US EPA - IRIS Carcinogens	(1986) Group B2 - Probable human Carcinogen
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
CANCER	EU - SVHC Authorisation List	Carcinogenic - Banned unless Authorised
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H225 - Highly flammable liquid and vapour
SKIN IRRITATION	EU - GHS (H-Statements)	H315 - Causes skin irritation
EYE IRRITATION	EU - GHS (H-Statements)	H319 - Causes serious eye irritation
CANCER	EU - GHS (H-Statements)	H350 - May cause cancer
CANCER	EU - REACH Annex XVII CMRs	Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxicant
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters
CANCER	МАК	Carcinogen Group 2 - Considered to be carcinogenic for man
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
CANCER	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence
CANCER	Japan - GHS	Carcinogenicity - Category 1B
CANCER	Malaysia - GHS	H350 - May cause cancer
CANCER	Australia - GHS	H350 - May cause cancer
BUTADIENE <6.0 ppm; 1-BUTEN PROPYLENE <8.0 ppm; IRON, E Additional information about res Julie Silas, and Jim Vallette, Res	NE <3.0 ppm; 2-BUTENE <0.5% ppm; ETHYLE BY wt <0.25 ppm/IMPURITY LEVEL IN VINYL C iduals can be found here. all are listed as occ silient Flooring & Chemical Hazards: A Compar April 2009. Available at: http://www.healthybu	asional or rare without actual percentages: Tom Lent, rative Analysis of Vinyl and Other Alternatives for Health
HYDROCHLORIC ACID		ID: 7647-01-0

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2019-04-08

%: Impurity/Residual

GS: **BM-2**

RC: UNK NANO: NO SUBSTANCE ROLE: Impurity/Residual

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RESPIRATORY					
	AOEC - Asthmagens		Asthmagen (Rr) - irritant-induced	
SKIN IRRITATION	EU - GHS (H-Statements)		H314 - Causes	severe skin burns and eye damag	ge
MAMMALIAN	EU - GHS (H-Statements)		H331 - Toxic if	inhaled	
MAMMALIAN	US EPA - EPCRA Extremely Hazardo Substances	ous	Extremely Haza	ardous Substances	
BUTADIENE <6.0 ppm; 1-BUTE PROPYLENE <8.0 ppm; IRON, Additional information about re Julie Silas, and Jim Vallette, Re	ETYLENE <2.0 ppm; ACIDITY, AS HC ENE <3.0 ppm; 2-BUTENE <0.5% ppr BY wt <0.25 ppm/IMPURITY LEVEL I esiduals can be found here. all are list esilient Flooring & Chemical Hazards: k, April 2009. Available at: http://www zards-Report.pdf	m; ETHYLEN IN VINYL CH ted as occa : A Compara	NE <4.0 ppm; E HLORIDE sional or rare w ative Analysis o	THYLENE DICHLORIDE (EDC) without actual percentages: Tou f Vinyl and Other Alternatives f	<10.0 m Lent
IRON				П	D: 7439
HAZARD SCREENING METHOD: Pharos	Chemical and Materials Library	HAZARD SC	REENING DATE: 2	019-04-08	
%: Impurity/Residual	GS: LT-P1	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Re	sidual
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS		
ENDOCRINE	TEDX - Potential Endocrine Disrupto	irs	Potential Endo	crine Disruptor	
BUTADIENE <6.0 ppm; 1-BUTE PROPYLENE <8.0 ppm; IRON, Additional information about re Julie Silas, and Jim Vallette, Re	ETYLENE <2.0 ppm; ACIDITY, AS HC ENE <3.0 ppm; 2-BUTENE <0.5% ppr BY wt <0.25 ppm/IMPURITY LEVEL I esiduals can be found here. all are list esilient Flooring & Chemical Hazards: k, April 2009. Available at: http://www	m; ETHYLEN IN VINYL CH ted as occa : A Compara	NE <4.0 ppm; E HLORIDE sional or rare w ative Analysis o	THYLENE DICHLORIDE (EDC) vithout actual percentages: Tou f Vinyl and Other Alternatives f	<10.0 m Lent
ResilientFlooring&ChemicalHaz	zards-Report.pdf				
ResilientFlooring&ChemicalHa:	zards-Report.pdf				ID: 115
ResilientFlooring&ChemicalHa	zards-Report.pdf Chemical and Materials Library	HAZARD SC	REENING DATE: 2	019-04-08	ID: 115
ResilientFlooring&ChemicalHaa PROPYLENE HAZARD SCREENING METHOD: Pharos		HAZARD SC RC: UNK	REENING DATE: 2	019-04-08 SUBSTANCE ROLE: Impurity/Re	
ResilientFlooring&ChemicalHaa PROPYLENE HAZARD SCREENING METHOD: Pharos	Chemical and Materials Library				
ResilientFlooring&ChemicalHaa PROPYLENE HAZARD SCREENING METHOD: Pharos %: Impurity/Residual	Chemical and Materials Library GS: BM-U		NANO: NO WARNINGS		
ResilientFlooring&ChemicalHaa PROPYLENE HAZARD SCREENING METHOD: Pharos %: Impurity/Residual HAZARD TYPE	Chemical and Materials Library GS: BM-U AGENCY AND LIST TITLES	RC: UNK	NANO: NO WARNINGS	SUBSTANCE ROLE: Impurity/Re	
ResilientFlooring&ChemicalHaa PROPYLENE HAZARD SCREENING METHOD: Pharos %: Impurity/Residual HAZARD TYPE PHYSICAL HAZARD (REACTIVE)	Chemical and Materials Library GS: BM-U AGENCY AND LIST TITLES EU - GHS (H-Statements)	RC: UNK	NANO: No WARNINGS H220 - Extreme	SUBSTANCE ROLE: Impurity/Re	





ID: 1310-73-2

SUBSTANCE NOTES: Impurities: ACETYLENE <2.0 ppm; ACIDITY, AS HCL BY wt <0.5 ppm; ALKALINITY, AS NaOH BY wt <0.3 ppm; BUTADIENE <6.0 ppm; 1-BUTENE <3.0 ppm; 2-BUTENE <0.5% ppm; ETHYLENE <4.0 ppm; ETHYLENE DICHLORIDE (EDC) <10.0 ppm; PROPYLENE <8.0 ppm; IRON, BY wt <0.25 ppm/IMPURITY LEVEL IN VINYL CHLORIDE

Additional information about residuals can be found here. all are listed as occasional or rare without actual percentages: Tom Lent, Julie Silas, and Jim Vallette, Resilient Flooring & Chemical Hazards: A Comparative Analysis of Vinyl and Other Alternatives for Health Care, Healthy Building Network, April 2009. Available at: http://www.healthybuilding.net/docs/HBN-ResilientFlooring&ChemicalHazards-Report.pdf

SODIUM HYDROXIDE

HAZARD SCREENING METHOD: Pharos	Chemical and Materials Library	HAZARD SC	REENING DATE: 20	019-04-08
%: Impurity/Residual	GS: LT-P1	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
SKIN IRRITATION	EU - GHS (H-Statements)		H314 - Causes	severe skin burns and eye damage
PHYSICAL HAZARD (REACTIVE)	Korea - GHS		H290 - May be	corrosive to metals

SUBSTANCE NOTES: Impurities: ACETYLENE <2.0 ppm; ACIDITY, AS HCL BY wt <0.5 ppm; ALKALINITY, AS NaOH BY wt <0.3 ppm; BUTADIENE <6.0 ppm; 1-BUTENE <3.0 ppm; 2-BUTENE <0.5% ppm; ETHYLENE <4.0 ppm; ETHYLENE DICHLORIDE (EDC) <10.0 ppm; PROPYLENE <8.0 ppm; IRON, BY wt <0.25 ppm/IMPURITY LEVEL IN VINYL CHLORIDE

Additional information about residuals can be found here. all are listed as occasional or rare without actual percentages: Tom Lent, Julie Silas, and Jim Vallette, Resilient Flooring & Chemical Hazards: A Comparative Analysis of Vinyl and Other Alternatives for Health Care, Healthy Building Network, April 2009. Available at: http://www.healthybuilding.net/docs/HBN-ResilientFlooring&ChemicalHazards-Report.pdf

POLYETHYLENE TEPHTHALATE	%: 10.0000 - 30.0000	
PRODUCT THRESHOLD: 100 ppm	residuals and impurities considered: Yes	MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were considered using the toxnet database. For more information about this database see RESIDUALS AND IMPURITIES SCREENING NOTES.

HAZARD SCREENING METHOD: Pha	aros Chemical and Materials Library	HAZARD SCRE	ENING DATE: 201	9-04-08
%: 10.0000 - 30.0000	GS: LT-UNK	RC: UNK	NANO: NO	SUBSTANCE ROLE: Adhesive
HAZARD TYPE	AGENCY AND LIST TITLES	WARNI	NGS	
None found			No warnin	gs found on HPD Priority Hazard Lis



OTHER MATERIAL NOTES:



SUBSTANCE NOTES: Impurity 1, Antimony trioxide: "The prepolymer can also be formed by transesterification (B) of dimethyl terephthalate with ethylene glycol, forming methanol as a by-product (Scheirs and Long, 2003). Oxides of e.g. zinc or manganese are commonly added to catalyze the first reaction, and antimony (III) oxide is most commonly used to catalyze the second step reaction (Ravve, 2000; Stevens, 1999)." (Lithner 2011)

"Residual molecular antimony (Sb) catalyst materials can migrate into food or water and be a potential contaminant from PET packaging materials. Sb was established as a catalyst of choice because it has some favorable properties, e.g. it gives bright, shiny polymers. There are two other main catalysts for PET: germanium oxide and titanium compounds (Thiele 2001)." http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3613973/

"Antimony trioxide is the preferred polycondensation catalyst for the production of PET."

"The Sb concentration of commercialized PET resin ranges between 190 and 300 µg g-1." http://www.scielo.br/scielo.php? script=sci_arttext&pid=S0103-50532014000400009

Impurity 2, Manganese oxide: "Oxides of e.g. zinc or manganese are commonly added to catalyze the first reaction, and antimony (III) oxide is most commonly used to catalyze the second step reaction (Ravve, 2000; Stevens, 1999)." (Lithner 2011)

Impurity 3, Nitrogen: In the DMT process, "Vapor from the top of the methanol column is sent to a cold water (or refrigerated) condenser, where the condensate returns to the methanol column, and noncondensable are purged with nitrogen before being emitted to the atmosphere."

http://www.epa.gov/ttn/chief/ap42/ch06/final/c06s06-2.pdf

impurity 4, Zinc Oxide: "The prepolymer can also be formed by transesterification (B) of dimethyl terephthalate with ethylene glycol, forming methanol as a by-product (Scheirs and Long, 2003). Oxides of e.g. zinc or manganese are commonly added to catalyse the first reaction, and antimony (III) oxide is most commonly used to catalyse the second step reaction (Ravve, 2000; Stevens, 1999)." (Lithner 2011)

ANTIMONY TRIOXIDE		ID: 1 3	309-64-4
HAZARD SCREENING METHOD: Pha	ros Chemical and Materials Library	HAZARD SCREENING DATE: 2019-04-08	
%: Impurity/Residual	GS: BM-1	RC: UNK NANO: NO SUBSTANCE ROLE: Impurity/Residu	ıal
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS	
CANCER	IARC	Group 2b - Possibly carcinogenic to humans	
CANCER	CA EPA - Prop 65	Carcinogen	
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen	
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer	
MULTIPLE	ChemSec - SIN List	CMR - Carcinogen, Mutagen &/or Reproductive Toxi	icant
CANCER	МАК	Carcinogen Group 2 - Considered to be carcinogenion man	c for
CANCER	GHS - Japan	Carcinogenicity - Category 1B [H350]	

SUBSTANCE NOTES: "The prepolymer can also be formed by transesterification (B) of dimethyl terephthalate with ethylene glycol, forming methanol as a by-product (Scheirs and Long, 2003). Oxides of e.g. zinc or manganese are commonly added to catalyze the first reaction, and antimony (III) oxide is most commonly used to catalyze the second step reaction (Ravve, 2000; Stevens, 1999)." (Lithner 2011)

"Residual molecular antimony (Sb) catalyst materials can migrate into food or water and be a potential contaminant from PET packaging materials. Sb was established as a catalyst of choice because it has some favorable properties, e.g. it gives bright, shiny polymers. There are two other main catalysts for PET: germanium oxide and titanium compounds (Thiele 2001)." http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3613973/

"Antimony trioxide is the preferred polycondensation catalyst for the production of PET." "The Sb concentration of commercialized PET resin ranges between 190 and 300 µg g-1." http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-50532014000400009

MANGANESE OXIDE

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2019-04-08

ID: 1317-34-6

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HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
REPRODUCTIVE	GHS - Japan		Toxic to reproc	luction - Category 1B [H360]
	e.g. zinc or manganese are commonly the second step reaction (Ravve, 200		-	eaction, and antimony (III) oxide is most 2011)
IITROGEN				ID: 7727-3 7
AZARD SCREENING METHOD: Pha	ros Chemical and Materials Library	HAZARD SC	REENING DATE: 2	019-04-08
a: Impurity/Residual	GS: NoGS	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
None found			No	warnings found on HPD Priority Hazard List
atmosphere." http://www.epa.gov/ttn/chi	ef/ap42/ch06/final/c06s06-2.pdf			
	ros Chemical and Materials Library	HAZARD SC	REENING DATE: 2	
AZARD SCREENING METHOD: Pha	ros Chemical and Materials Library GS: BM-1	HAZARD SC RC: UNK	REENING DATE: 2 0 NANO: NO	
AZARD SCREENING METHOD: Pha				019-04-08
AZARD SCREENING METHOD: Phan : Impurity/Residual HAZARD TYPE	GS: BM-1		NANO: NO WARNINGS	019-04-08
AZARD SCREENING METHOD: Phane Impurity/Residual HAZARD TYPE RESPIRATORY	GS: BM-1		NANO: No WARNINGS Asthmagen (Re	019-04-08 SUBSTANCE ROLE: Impurity/Residual
AZARD SCREENING METHOD: Phan Impurity/Residual HAZARD TYPE RESPIRATORY ACUTE AQUATIC	GS: BM-1 AGENCY AND LIST TITLES AOEC - Asthmagens		NANO: No WARNINGS Asthmagen (Rs H400 - Very to)	019-04-08 SUBSTANCE ROLE: Impurity/Residual
AZARD SCREENING METHOD: Pha : Impurity/Residual HAZARD TYPE RESPIRATORY	GS: BM-1 AGENCY AND LIST TITLES AOEC - Asthmagens EU - GHS (H-Statements)	RC: UNK	NANO: No WARNINGS Asthmagen (Rs H400 - Very to)	019-04-08 SUBSTANCE ROLE: Impurity/Residual
AZARD SCREENING METHOD: Phan : Impurity/Residual HAZARD TYPE RESPIRATORY ACUTE AQUATIC CHRON AQUATIC	GS: BM-1 AGENCY AND LIST TITLES AOEC - Asthmagens EU - GHS (H-Statements) EU - GHS (H-Statements)	RC: UNK	NANO: No WARNINGS Asthmagen (Rs H400 - Very too H410 - Very too	D19-04-08 SUBSTANCE ROLE: Impurity/Residual a) - sensitizer-induced kic to aquatic life kic to aquatic life with long lasting effects crine Disruptor
E: Impurity/Residual HAZARD TYPE RESPIRATORY ACUTE AQUATIC CHRON AQUATIC ENDOCRINE MULTIPLE SUBSTANCE NOTES: "The preport methanol as a by-product ()	GS: BM-1 AGENCY AND LIST TITLES AOEC - Asthmagens EU - GHS (H-Statements) EU - GHS (H-Statements) TEDX - Potential Endocrine Disrup German FEA - Substances Hazard Waters blymer can also be formed by transeste	Detors lous to erification (B) o g. zinc or man	NANO: No WARNINGS Asthmagen (Rs H400 - Very too H410 - Very too Potential Endo Class 2 - Hazar of dimethyl tere ganese are cor	D19-04-08 SUBSTANCE ROLE: Impurity/Residual a) - sensitizer-induced cic to aquatic life cic to aquatic life with long lasting effects crine Disruptor rd to Waters ephthalate with ethylene glycol, forming monnly added to catalyze the first
AZARD SCREENING METHOD: Phan Impurity/Residual HAZARD TYPE RESPIRATORY ACUTE AQUATIC CHRON AQUATIC ENDOCRINE MULTIPLE SUBSTANCE NOTES: "The prepored methanol as a by-product (reaction, and antimony (III)	GS: BM-1 AGENCY AND LIST TITLES AOEC - Asthmagens EU - GHS (H-Statements) EU - GHS (H-Statements) TEDX - Potential Endocrine Disrup German FEA - Substances Hazard Waters blymer can also be formed by transeste	Detors lous to erification (B) o g. zinc or man	NANO: No WARNINGS Asthmagen (Rs H400 - Very too H410 - Very too Potential Endo Class 2 - Hazar of dimethyl tere ganese are cor	SUBSTANCE ROLE: Impurity/Residual a) - sensitizer-induced tic to aquatic life tic to aquatic life with long lasting effects crine Disruptor rd to Waters ephthalate with ethylene glycol, forming

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RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were considered using the toxnet database. For more information about this database see RESIDUALS AND IMPURITIES SCREENING NOTES.

UNK NANO WARNINGS		
WARNINGS	IU: NU SUBSTANCE R	ROLE: Plasticizer
١	No warnings found on H	PD Priority Hazard Lis
ured at >98% p SIDS)	purity. Minor impuritie	es (present at <2%)
		ID: 63468-1
SCREENING DATE:	E: 2019-04-08	
K NANO: NO	O SUBSTANCE ROLE: I	mpurity/Residual
WARNINGS		
١	No warnings found on H	PD Priority Hazard Lis
MATERIAL	AL TYPE: Geologically	Derived Materia
	toxnet database. F	
d using the t NOTES.		or more informat
NOTES. step should r	s of fines. The mater	he point where
NOTES. step should r g an excess	s of fines. The mater	he point where
NOTES. step should r g an excess	s of fines. The mater	he point where
NOTES. step should r g an excess	s of fines. The mater	he point where
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NOTES. step should r g an excess	s of fines. The mater	he point where
NOTES. step shou g an exce	ess	he toxnet database. F uld reduce the ore to t ess of fines. The mate ed out.





HAZARD SCREENING METHOD: Pha	aros Chemical and Materials Library	HAZARD SCRE	ENING DATE: 2019	-04-08
%: 5.0000 - 20.0000	GS: BM-3	RC: UNK	NANO: NO	SUBSTANCE ROLE: Filler
HAZARD TYPE	AGENCY AND LIST TITLES	WARNING	S	
None found			No warnings	found on HPD Priority Hazard Lists
	e secondary crushing step should reduce the ng an excess of fines. The material may then			
	%: 1.0000 - 10.0000			
ODUCT THRESHOLD: 100 ppr	m RESIDUALS AND IMPURITIES CONSIDERED:			ologically Derived Material
bout this database see F	Residuals and impurities were cons RESIDUALS AND IMPURITIES SCREE rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large	NING NOTES. de hydrate (Ti	O(OH)2 or Ti	D2 dihydrate) is precipitated
HER MATERIAL NOTES: Impur her Material NOTES: Impur hydrolysis of this titany	RESIDUALS AND IMPURITIES SCREE	NING NOTES. de hydrate (Ti ly removed in	O(OH)2 or Ti	D2 dihydrate) is precipitated cation stages. ID: 13463-67
HER MATERIAL NOTES: Impury hydrolysis of this titany TITANIUM DIOXIDE	RESIDUALS AND IMPURITIES SCREEN rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large	NING NOTES. de hydrate (Ti ly removed in	O(OH)2 or Ti(further purifi	D2 dihydrate) is precipitated cation stages. ID: 13463-67
HER MATERIAL NOTES: Impury hydrolysis of this titany TITANIUM DIOXIDE	RESIDUALS AND IMPURITIES SCREEN rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large aros Chemical and Materials Library	NING NOTES. de hydrate (Ti ly removed in HAZARD SCREEN	O(OH)2 or Tid further purific ING DATE: 2019-0 NANC: No	D2 dihydrate) is precipitated cation stages. ID: 13463-67 04-08
HER MATERIAL NOTES: Impury hydrolysis of this titany TITANIUM DIOXIDE HAZARD SCREENING METHOD: Pha %: 1.0000 - 10.0000	RESIDUALS AND IMPURITIES SCREE rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large aros Chemical and Materials Library GS: LT-1	NING NOTES. de hydrate (Ti ly removed in HAZARD SCREEN RC: UNK WARNING	O(OH)2 or Tid further purific ING DATE: 2019-0 NANC: No	D2 dihydrate) is precipitated cation stages. ID: 13463-67 04-08 SUBSTANCE ROLE: Pigment
HER MATERIAL NOTES: Impury hydrolysis of this titany TITANIUM DIOXIDE HAZARD SCREENING METHOD: Pha %: 1.0000 - 10.0000 HAZARD TYPE	RESIDUALS AND IMPURITIES SCREEN rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large aros Chemical and Materials Library GS: LT-1	NING NOTES. de hydrate (Ti ly removed in HAZARD SCREEN RC: UNK WARNING Occupa	O(OH)2 or Ti(further purifi IING DATE: 2019-0 NANO: No	D2 dihydrate) is precipitated cation stages. ID: 13463-67 04-08 SUBSTANCE ROLE: Pigment
HER MATERIAL NOTES: Impur hydrolysis of this titany rITANIUM DIOXIDE HAZARD SCREENING METHOD: Pha 66: 1.0000 - 10.0000 HAZARD TYPE CANCER	RESIDUALS AND IMPURITIES SCREEN rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large aros Chemical and Materials Library GS: LT-1 AGENCY AND LIST TITLES US CDC - Occupational Carcinogens	NING NOTES. de hydrate (Ti ly removed in HAZARD SCREEN RC: UNK WARNING Occupa Carcino Group 2	O(OH)2 or Tid further purific IING DATE: 2019-C NANO: No	D2 dihydrate) is precipitated cation stages. ID: 13463-67 D4-08 SUBSTANCE ROLE: Pigment
HER MATERIAL NOTES: Impur y hydrolysis of this titany TITANIUM DIOXIDE HAZARD SCREENING METHOD: Pha %: 1.0000 - 10.0000 HAZARD TYPE CANCER CANCER	RESIDUALS AND IMPURITIES SCREEN rity Notes: Relatively pure titanium oxio yl sulfate solution. Impurities are large aros Chemical and Materials Library GS: LT-1 AGENCY AND LIST TITLES US CDC - Occupational Carcinogens CA EPA - Prop 65	NING NOTES. de hydrate (Ti ly removed in HAZARD SCREEN RC: UNK WARNING Occupa Carcino Group 2 occupa	O(OH)2 or Tid further purifi IING DATE: 2019-0 NANO: No s ational Carcinoge ogen - specific to 2B - Possibly car	D2 dihydrate) is precipitated cation stages. ID: 13463-67 04-08 SUBSTANCE ROLE: Pigment In chemical form or exposure route cinogenic to humans - inhaled from
HER MATERIAL NOTES: Impur hydrolysis of this titany FITANIUM DIOXIDE HAZARD SCREENING METHOD: Pha K: 1.0000 - 10.0000 HAZARD TYPE CANCER CANCER CANCER	RESIDUALS AND IMPURITIES SCREEN rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large aros Chemical and Materials Library GS: LT-1 AGENCY AND LIST TITLES US CDC - Occupational Carcinogens CA EPA - Prop 65 IARC	NING NOTES. de hydrate (Ti ly removed in HAZARD SCREEN RC: UNK WARNING Occupa Carcino Group 2 occupa Potenti Carcino	O(OH)2 or Tid further purific ING DATE: 2019-C NANO: No is ational Carcinoge ogen - specific to 2B - Possibly car titional sources al Endocrine Disr ogen Group 3A - I	D2 dihydrate) is precipitated cation stages. ID: 13463-67 04-08 SUBSTANCE ROLE: Pigment In chemical form or exposure route cinogenic to humans - inhaled from
HER MATERIAL NOTES: Impur HER MATERIAL NOTES: Impur Hydrolysis of this titany TITANIUM DIOXIDE HAZARD SCREENING METHOD: Pha %: 1.0000 - 10.0000 HAZARD TYPE CANCER CANCER CANCER ENDOCRINE	RESIDUALS AND IMPURITIES SCREEN rity Notes: Relatively pure titanium oxid yl sulfate solution. Impurities are large aros Chemical and Materials Library GS: LT-1 AGENCY AND LIST TITLES US CDC - Occupational Carcinogens CA EPA - Prop 65 IARC TEDX - Potential Endocrine Disruptors	NING NOTES. de hydrate (Ti ly removed in HAZARD SCREEN RC: UNK WARNING Occupa Carcino Group 2 occupa Potenti Carcino but not Carcino	O(OH)2 or Tid further purific IING DATE: 2019-C NANO: No s ational Carcinoge ogen - specific to 2B - Possibly car titional sources al Endocrine Disr ogen Group 3A - I sufficient to esta	D2 dihydrate) is precipitated cation stages. ID: 13463-67 D4-08 SUBSTANCE ROLE: Pigment in chemical form or exposure route cinogenic to humans - inhaled from uptor Evidence of carcinogenic effects iblish MAK/BAT value on-genotoxic carcinogen with low

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INC STEARATE	%: 0.5000 - 5.0000			
RODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES CONS	BIDERED: Yes	MATERIAL TYPE:	Polymeric Material
	Residuals and impurities were co ESIDUALS AND IMPURITIES SCR	-		se. For more information
THER MATERIAL NOTES:				
OCTADECANOIC ACID, ZINC	CSALT			ID: 557-05-1
HAZARD SCREENING METHOD: Phar	ros Chemical and Materials Library	HAZARD SCREENING	a date: 2019-04-08	
%: 0.5000 - 5.0000	GS: LT-UNK	RC: UNK NAN	O: NO SUBSTANCE ROL	E: Heat or UV stabilizer
HAZARD TYPE	AGENCY AND LIST TITLES	WARNIN	IGS	
None found			No warnings found	on HPD Priority Hazard Lists
SUBSTANCE NOTES:				
NTIMONY OXIDE	%: 0.5000 - 5.0000			
	RESIDUALS AND IMPURITIES CONS			Polymeric Material se. For more informatior
bout this database see RI		onsidered using EENING NOTES	the toxnet databas S.	se. For more information
esiduals and impurities notes:	Residuals and impurities were constructed and impurities were constructed as a seric, copper mpurities such as arsenic, copper	onsidered using EENING NOTES	the toxnet databas S.	se. For more information
ESIDUALS AND IMPURITIES NOTES: bout this database see RI THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO	Residuals and impurities were constructed and impurities were constructed as a seric, copper mpurities such as arsenic, copper	onsidered using EENING NOTES r, iron, lead, and	the toxnet databas S.	se. For more information
ESIDUALS AND IMPURITIES NOTES: bout this database see RI THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO	Residuals and impurities were constructed and impurities were constructed as a seric, copper mpurities such as arsenic, copper NY TRIOXIDE)	nsidered using EENING NOTES r, iron, lead, and HAZARD SCREENIN	the toxnet databas S. I nickel. All are belo NG DATE: 2019-04-08	se. For more information
ESIDUALS AND IMPURITIES NOTES: bout this database see RI THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO HAZARD SCREENING METHOD: Phar	Residuals and impurities were constructed as a series of the series of t	nsidered using EENING NOTES r, iron, lead, and HAZARD SCREENIN	the toxnet databas in	se. For more information ow the threshold level. ID: 1309-64-4
ESIDUALS AND IMPURITIES NOTES: bout this database see RI THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO HAZARD SCREENING METHOD: Phan %: 0.5000 - 5.0000	Residuals and impurities were co ESIDUALS AND IMPURITIES SCR mpurities such as arsenic, copper NY TRIOXIDE) ros Chemical and Materials Library GS: BM-1	nsidered using EENING NOTES r, iron, lead, and HAZARD SCREENIN RC: UNK N. WARNIN	the toxnet databas in	se. For more information ow the threshold level. ID: 1309-64-4 ROLE: Flame retardant
ESIDUALS AND IMPURITIES NOTES: bout this database see RI THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO HAZARD SCREENING METHOD: Phar %: 0.5000 - 5.0000 HAZARD TYPE	Residuals and impurities were co ESIDUALS AND IMPURITIES SCR mpurities such as arsenic, copper NY TRIOXIDE) ros Chemical and Materials Library GS: BM-1	nsidered using EENING NOTES r, iron, lead, and HAZARD SCREENIN RC: UNK N. WARNIN	the toxnet databas in	se. For more information ow the threshold level. ID: 1309-64-4 ROLE: Flame retardant
ESIDUALS AND IMPURITIES NOTES: bout this database see RF THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO HAZARD SCREENING METHOD: Phar %: 0.5000 - 5.0000 HAZARD TYPE CANCER	E Residuals and impurities were co ESIDUALS AND IMPURITIES SCR mpurities such as arsenic, copper NY TRIOXIDE) ros Chemical and Materials Library GS: BM-1 AGENCY AND LIST TITLES IARC	nsidered using EENING NOTES r, iron, lead, and HAZARD SCREENIN RC: UNK N WARNIN Group Carcir	the toxnet databas in	se. For more information ow the threshold level. ID: 1309-64-4 ROLE: Flame retardant
ESIDUALS AND IMPURITIES NOTES: bout this database see Ri THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO HAZARD SCREENING METHOD: Phar %: 0.5000 - 5.0000 HAZARD TYPE CANCER CANCER	E Residuals and impurities were co ESIDUALS AND IMPURITIES SCR Impurities such as arsenic, copper NY TRIOXIDE) TOS Chemical and Materials Library GS: BM-1 AGENCY AND LIST TITLES IARC CA EPA - Prop 65	Carcir HATARD SCREENING RC: UNK N WARNIN Group Carcir H411	the toxnet databas in the toxnet databas in toxnet. All are below and date: 2019-04-08 ano: No SUBSTANCE ano: No SUBSTANCE as b 2b - Possibly carcinogen anogen	se. For more information ow the threshold level. ID: 1309-64-4 ROLE: Flame retardant nic to humans
ESIDUALS AND IMPURITIES NOTES: bout this database see RI THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO) HAZARD SCREENING METHOD: Phar %: 0.5000 - 5.0000 HAZARD TYPE CANCER CANCER CHRON AQUATIC	E Residuals and impurities were co ESIDUALS AND IMPURITIES SCR Impurities such as arsenic, copper NY TRIOXIDE) TOS Chemical and Materials Library GS: BM-1 AGENCY AND LIST TITLES IARC CA EPA - Prop 65 EU - GHS (H-Statements)	Carcin Carcin Carcin Carcin Carcin Carcin Carcin Carcin Carcin Carcin Carcin	the toxnet databas in	se. For more information ow the threshold level. ID: 1309-64-4 ROLE: Flame retardant nic to humans
ESIDUALS AND IMPURITIES NOTES: bout this database see RI THER MATERIAL NOTES: Trace i ANTIMONY OXIDE (ANTIMO HAZARD SCREENING METHOD: Phan %: 0.5000 - 5.0000 HAZARD TYPE CANCER CANCER CHRON AQUATIC CANCER	Residuals and impurities were co ESIDUALS AND IMPURITIES SCR mpurities such as arsenic, copper NY TRIOXIDE) ros Chemical and Materials Library GS: BM-1 AGENCY AND LIST TITLES IARC CA EPA - Prop 65 EU - GHS (H-Statements) EU - GHS (H-Statements)	CMR - CMR - CMR - CMR - CMR - CMR - CMR - Considered using EENING NOTES MATHER NOTES NO NOTES NOTES NO NO NO NO NO NO NO NO NO NO NO NO NO	the toxnet databas in the toxnet databas in ckel. All are below and date: 2019-04-08 ano: No SUBSTANCE ano: No SUBSTANCE as 2 b - Possibly carcinoger bogen - Toxic to aquatic life with - Suspected of causing c - Carcinogen, Mutagen &	se. For more information by the threshold level. ID: 1309-64-4 ROLE: Flame retardant nic to humans h long lasting effects cancer
ESIDUALS AND IMPURITIES NOTES: about this database see RE ANTIMONY OXIDE (ANTIMO) HAZARD SCREENING METHOD: Phar %: 0.5000 - 5.0000 HAZARD TYPE CANCER CANCER CHRON AQUATIC CANCER MULTIPLE	E Residuals and impurities were co ESIDUALS AND IMPURITIES SCR mpurities such as arsenic, copper NY TRIOXIDE) ros Chemical and Materials Library GS: BM-1 AGENCY AND LIST TITLES IARC CA EPA - Prop 65 EU - GHS (H-Statements) EU - GHS (H-Statements) ChemSec - SIN List	Ansidered using EENING NOTES r, iron, lead, and HAZARD SCREENIN RC: UNK N Group Carcir H411 - H351 - CMR - Carcir man	the toxnet databas in the toxnet databas in ckel. All are below and date: 2019-04-08 ano: No SUBSTANCE ano: No SUBSTANCE as 2 b - Possibly carcinoger bogen - Toxic to aquatic life with - Suspected of causing c - Carcinogen, Mutagen &	se. For more information by the threshold level. ID: 1309-64-4 ROLE: Flame retardant nic to humans h long lasting effects ancer /or Reproductive Toxicant

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AZARD SCREENING METHOD: Pha	aros Chemical and Materials Library	HAZARD SC	REENING DATE: 2	019-04-08
. Impurity/Residual	GS: LT-1	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
CHRON AQUATIC	EU - GHS (H-Statements)		H411 - Toxic to	o aquatic life with long lasting effects
CANCER MAK			Carcinogen Gr man	roup 2 - Considered to be carcinogenic for
antimony trisulfide, and all	methods of preparation include direct c kaline hydrolysis of an antimony trihalide a of Chemical Technology. 4th ed. Volum	and subsec	uent dehydrat	ion of the resulting hydrous oxide."
NTIMONY TRISULFIDE				ю: 1345-0 4
AZARD SCREENING METHOD: Pha	aros Chemical and Materials Library	HAZARD SC	REENING DATE: 2	019-04-08
a: Impurity/Residual	GS: LT-1	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
CHRON AQUATIC	EU - GHS (H-Statements)		H411 - Toxic to	o aquatic life with long lasting effects
CANCER	МАК		Carcinogen Gr man	roup 2 - Considered to be carcinogenic for
antimony trisulfide, and all	methods of preparation include direct c kaline hydrolysis of an antimony trihalide a of Chemical Technology. 4th ed. Volum	and subsec	juent dehydrat	ion of the resulting hydrous oxide."
AZARD SCREENING METHOD: Pha	aros Chemical and Materials Library	HAZARD SC	REENING DATE: 2	2019-04-08
: Impurity/Residual	GS: LT-1	RC: UNK	NANO: No	SUBSTANCE ROLE: Impurity/Residual

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HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
DEVELOPMENTAL	G&L - Neurotoxic Chemicals	Developmental Neurotoxicant
CANCER	US EPA - IRIS Carcinogens	(1986) Group A - Human Carcinogen
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
PBT	OR DEQ - Priority Persistent Pollutan	ts Priority Persistent Pollutant - Tier 1
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
MAMMALIAN	EU - GHS (H-Statements)	H301 - Toxic if swallowed
MAMMALIAN	EU - GHS (H-Statements)	H331 - Toxic if inhaled
ENDOCRINE	TEDX - Potential Endocrine Disruptor	s Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardou Waters	s to Class 3 - Severe Hazard to Waters
CANCER	МАК	Carcinogen Group 1 - Substances that cause cancer in man
CANCER	Korea - GHS	Carcinogenicity - Category 1 [H350 - May cause cancer]
CANCER	New Zealand - GHS	6.7A - Known or presumed human carcinogens
CANCER	Japan - GHS	Carcinogenicity - Category 1A
GENE MUTATION	МАК	Germ Cell Mutagen 3a
CANCER	Australia - GHS	H350 - May cause cancer
SUBSTANCE NOTES:		
OPPER		iD: 7440-50
AZARD SCREENING METHOD: Pha	aros Chemical and Materials Library	HAZARD SCREENING DATE: 2019-04-08
Impurity/Residual	GS: LT-UNK	RC: UNK NANO: NO SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists
SUBSTANCE NOTES:		
RON		ID: 7439-89 -

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HAZARD SCREENING METHOD: Pha	ros Chemical and Materials Library	HAZARD SC	REENING DATE: 2	019-04-08
%: Impurity/Residual	GS: LT-P1	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
ENDOCRINE	TEDX - Potential Endocrine Disruptor	rs	Potential Endo	crine Disruptor
SUBSTANCE NOTES:				
LEAD				ID: 7439-92-1
HAZARD SCREENING METHOD: Pha	ros Chemical and Materials Library	HAZARD SC	REENING DATE: 20	019-04-08
%: Impurity/Residual	GS: LT-1	RC: UNK	NANO: NO	SUBSTANCE ROLE: Impurity/Residual
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS	
DEVELOPMENTAL	G&L - Neurotoxic Chemicals		Developmental	Neurotoxicant
CANCER	US EPA - IRIS Carcinogens		(1986) Group B	2 - Probable human Carcinogen
CANCER	IARC		Group 2a - Age	ent is probably Carcinogenic to humans
CANCER	IARC		Group 2b - Possibly carcinogenic to humans	
CANCER	CA EPA - Prop 65		Carcinogen	
DEVELOPMENTAL	CA EPA - Prop 65	CA EPA - Prop 65		toxicity
PBT	US EPA - Priority PBTs (NWMP)		Priority PBT	
PBT	WA DoE - PBT		PBT	
REPRODUCTIVE	CA EPA - Prop 65		Reproductive T	oxicity - Female
REPRODUCTIVE	CA EPA - Prop 65		Reproductive T	oxicity - Male
CANCER	US NIH - Report on Carcinogens		Reasonably An	ticipated to be Human Carcinogen
PBT	US EPA - Toxics Release Inventory P	PBTs	PBT	
REPRODUCTIVE	EU - SVHC Authorisation List		Toxic to reproc	luction - Candidate list
PBT	OSPAR - Priority PBTs & EDs & equiv concern	valent	PBT - Chemica	I for Priority Action
PBT	OR DEQ - Priority Persistent Pollutan	its	Priority Persiste	ent Pollutant - Tier 1
DEVELOPMENTAL	US NIH - Reproductive & Developme Monographs	ntal	Clear Evidence	of Adverse Effects - Developmental Toxicity
REPRODUCTIVE	US NIH - Reproductive & Developme Monographs	ntal	Clear Evidence	of Adverse Effects - Reproductive Toxicity
REPRODUCTIVE	EU - GHS (H-Statements)		H360FD - May child	damage fertility. May damage the unborn
DEVELOPMENTAL	EU - GHS (H-Statements)		H362 - May cau	use harm to breast-fed children
REPRODUCTIVE	EU - REACH Annex XVII CMRs			duction Category 1 - Substances known to or cause Developmental Toxicity in humans

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MULTIPLE	ChemSec - SIN List		UNIN - Carcinog	gen, Mutagen &/or Reprodu	aouro ronoun	
ENDOCRINE	TEDX - Potential Endocrine Disrupt	tors	Potential Endoc	crine Disruptor		
CANCER	МАК	МАК		Carcinogen Group 2 - Considered to be carcinogenic for man		
CANCER	Korea - GHS	Korea - GHS		Carcinogenicity - Category 1 [H350 - May cause cancer]		
REPRODUCTIVE	Korea - GHS	Korea - GHS		Reproductive toxicity - Category 1 [H360 - May damage fertility or the unborn child]		
REPRODUCTIVE	New Zealand - GHS	New Zealand - GHS		6.8A - Known or presumed human reproductive or developmental toxicants		
REPRODUCTIVE	Japan - GHS		Toxic to reprod	uction - Category 1A		
GENE MUTATION	МАК		Germ Cell Muta	gen 3a		
REPRODUCTIVE	EU - Annex VI CMRs		Reproductive T	oxicity - Category 1A		
DEVELOPMENTAL	Australia - GHS		H360Df - May d damaging fertili	lamage the unborn child. S ty	uspected of	
SUBSTANCE NOTES:						
GUEGTANGE NOTES:						
IICKEL (METALLIC)					ID: 7440-0	
AZARD SCREENING METHOD: Pha	ros Chemical and Materials Library	HAZARD SC	REENING DATE: 20)19-04-08		
AZARD SCREENING METHOD: Pha	ros Chemical and Materials Library GS: LT-1	HAZARD SC RC: UNK	REENING DATE: 20	019-04-08 SUBSTANCE ROLE: Impuri	ity/Residual	
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HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
RESPIRATORY	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans
CANCER	IARC	Group 2b - Possibly carcinogenic to humans
CANCER	CA EPA - Prop 65	Carcinogen
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen
CANCER	US NIH - Report on Carcinogens	Known to be a human Carcinogen
CANCER	US NIH - Report on Carcinogens	Reasonably Anticipated to be Human Carcinogen
SKIN SENSITIZE	EU - GHS (H-Statements)	H317 - May cause an allergic skin reaction
CANCER	EU - GHS (H-Statements)	H351 - Suspected of causing cancer
ORGAN TOXICANT	EU - GHS (H-Statements)	H372 - Causes damage to organs through prolonged or repeated exposure
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
CANCER	МАК	Carcinogen Group 1 - Substances that cause cancer in man
RESPIRATORY	МАК	Sensitizing Substance Sah - Danger of airway & skin sensitization
SUBSTANCE NOTES:		

ZINC PYRITHIONE

PRODUCT THRESHOLD: 100 ppm

%: 0.1000 - 1.0000

MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and impurities were considered using the toxnet database. For more information about this database see RESIDUALS AND IMPURITIES SCREENING NOTES.

RESIDUALS AND IMPURITIES CONSIDERED: $Y\!es$

OTHER MATERIAL NOTES:

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ZARD SCREENING METHOD: P	naros Chemical and Materials Library	HAZARD SCRE	ENING DATE: 201	9-04-08
0.1000 - 1.0000	GS: BM-1tp	RC: UNK	NANO: NO	SUBSTANCE ROLE: Biocide
HAZARD TYPE	AGENCY AND LIST TITLES	WARNING	3S	
MULTIPLE	German FEA - Substances Hazardous to Waters	Class	3 - Severe Hazar	d to Waters

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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/GreenGuard Gold Certified			
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: This is not facility specific	ISSUE DATE: 2012- 12-22	EXPIRY DATE: 2022- 12-22	CERTIFIER OR LAB: UL	
CERTIFICATE URL:				

CERTIFICATION AND COMPLIANCE NOTES: Certificate # 75170-420

🛨 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.

CONTRACT	HPD URL: https://hpdrepository.hpd-
SERIES TWO	$collaborative.org/repository/HPDs/430_Rollease_Acmeda_Contract_Series_Two_Shading_System.pdf$
SHADING	
SYSTEM	

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: This is the shading system.

Section 5: General Notes

This inventory is reported to 100 ppm with possible residuals and impurities noted. This HPD is reporting substances to 100 ppm for this product 3000 HT. Residuals and impurities were screened using the toxnet and Pharos databases. This database is a general database and lists possible residuals and impurities for chemicals and substances as reported in peer-reviewed studies or other credible documentation. Just because a chemical could have the impurity listed in the database does not mean that this material contains that impurity. Actual impurities are a product of the sourced product and its suppliers. Residuals and impurities listed in the HPD are for information purposes only and are not 100% guaranteed to be present in the fabric.

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Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: Rollease Acmeda ADDRESS: 200 Harvard Ave Stamford CT 06902, USA WEBSITE: http://www.rolleaseacmeda.com/us/home CONTACT NAME: Lindsey DeSalvo TITLE: Product Manager-Fabric PHONE: 203-590-5259 EMAIL: lindsey.desalvo@rolleaseacmeda.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.

MAM Mammalian/systemic/organ toxicity

PBT Persistent, bioaccumulative, and toxic

NF Not found on Priority Hazard Lists

LAN Land toxicity

NEU Neurotoxicity

OZO Ozone depletion

MUL Multiple

KEY

Hazard Types AQU Aquatic toxicity CAN Cancer DEV Developmental toxicity END Endocrine activity EYE Eye irritation/corrosivity GEN Gene mutation GLO Global warming

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)

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.

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PHONE: 203-590-5259 EMAIL: lindsey.desalvo@rolleaseacm

> reactive) REP Reproductive RES Respiratory sensitization SKI Skin sensitization/irritation/corrosivity UNK Unknown

PHY Physical hazard (flammable or

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.