

**CLASSIFICATION:** 09 65 16 Resilient Sheet Flooring

**PRODUCT DESCRIPTION:** Vinyl tile used in indoor commercial applications in a variety of industries including retail, hospitality, and healthcare. NOX Design LVT Flooring is warranted for medium to heavy commercial applications and can be installed over all types of subfloors including natural wood, concrete, one layer of existing vinyl, ceramic and uneven subfloors. Flooring provides durability, performance and aesthetic appeal to building interiors. This HPD covers NOX Luxury Vinyl Tile (2mm-5mm), which all have both color and design variations dependent on the tile's print layer.

**Section 1: Summary**

**Basic Method / Product Threshold**

**CONTENT INVENTORY**

**Inventory Reporting Format**

- Nested Materials Method
- Basic Method

**Threshold level**

- 100 ppm
- 1,000 ppm
- Per GHS SDS
- Per OSHA MSDS
- Other

**Residuals/Impurities**

- Considered
- Partially Considered
- Not Considered

*All Substances Above the Threshold Indicated Are:*

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

**Threshold Disclosed Per**

- Material
- Product

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

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

**Identified**  Yes Ex/SC  Yes  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.*

**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**

**NOX LVT (2MM-5MM) [ POLYVINYL CHLORIDE (PVC) LT-P1 | RES LIMESTONE, CALCIUM CARBONATE LT-UNK BIS(2-ETHYLHEXYL) TEREPHTHALATE BM-3dg CONTINUOUS FILAMENT GLASS FIBER, NON-RESPIRABLE LT-UNK UNDISCLOSED LT-UNK MAGNESIUM ALUMINUM HYDROXIDE CARBONATE LT-UNK ZINC DIOLEATE LT-P1 | MUL CALCIUM STEARATE LT-UNK DIPROPYLENE GLYCOL DIACRYLATE LT-UNK 1,3,5-TRIS(2-HYDROXYETHYL) ISOCYANURATE LT-UNK POLY(OXY-1,2-ETHANEDIYL), ALPHA-(1-OXO-2-PROPEN1-YL)-OMEGA-((1-OXO-2-PROPEN-1-YL)OXY)- LT-UNK HEXANEDIOIC ACID, POLYMER WITH 1,2-ETHANEDIOL AND 1,6-DIISOCYANATO-2,2,4(OR 2,4,4)-TRIMETHYLHEXANE, 2-HYDROXYETHYL ACRYLATE-BLOCKED NoGS 1,6-HEXANEDIOL DIACRYLATE LT-P1 | SKI | EYE | MUL METHYL BENZOYLFORMATE LT-UNK TRIPROPYLENE GLYCOL DIACRYLATE LT-P1 | AQU | SKI | EYE | MUL WATER BM-4 ]**

Number of Greenscreen BM-4/BM3 contents ... 1  
Contents highest concern GreenScreen Benchmark or List translator Score ... LT-P1  
Nanomaterial ... No

**INVENTORY AND SCREENING NOTES:**

NOX Corporation worked with an HPDC Approved Preparer to confirm that all residuals and impurities were considered under the preparation of this HPD. This was accomplished by obtaining full formulation disclosure, including residuals and impurities, down to the 100 ppm threshold.

**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: RFCI FloorScore  
LCA: Environmental Product Declaration (EPD) by SCS

**CONSISTENCY WITH OTHER PROGRAMS**

Pre-checked for LEED v4 Material Ingredients, Option 1 and Option 2

Third Party Verified?

Yes

No

PREPARER: ToxServices LLC  
VERIFIER: SCS Global Services  
VERIFICATION #: qGE-9422

SCREENING DATE: 2020-05-13  
PUBLISHED DATE: 2020-05-15  
EXPIRY DATE: 2023-05-13



## 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 2.1.1, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-1-standard](http://www.hpd-collaborative.org/hpd-2-1-1-standard)

### NOX LVT (2MM-5MM)

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: NOX Corporation worked with an HPDC Approved Preparer to confirm that all residuals and impurities were considered under the preparation of this HPD. This was accomplished by obtaining full formulation disclosure, including residuals and impurities, down to the 100 ppm threshold.

OTHER PRODUCT NOTES: This HPD covers NOX Luxury Vinyl Tile (2mm-5mm), which all have both color and design variations dependent on the tile's print layer.

### POLYVINYL CHLORIDE (PVC)

ID: 9002-86-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-05-13

#: 40.14 - 53.60

GS: LT-P1

RC:

NANO:

ROLE: Wear Layer, Print Layer and PVC Mid-Bottom Layer Components

None

No

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

RESPIRATORY

AOEC - Asthmagens

Asthmagen (Rs) - sensitizer-induced

SUBSTANCE NOTES:

### LIMESTONE, CALCIUM CARBONATE

ID: 1317-65-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-05-13

#: 18.91 - 24.36

GS: LT-UNK

RC: None

NANO: No

ROLE: PVC Mid-Bottom Layer Component

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

### BIS(2-ETHYLHEXYL) TEREPHTHALATE

ID: 6422-86-2

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2020-05-13

%: 16.86 - 22.65

GS: BM-3dg

RC: None NANO: No ROLE: Wear Layer, Print Layer and PVC Mid-Bottom Layer Components

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

CONTINUOUS FILAMENT GLASS FIBER, NON-RESPIRABLE

ID: 65997-17-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-05-13

%: 4.00 - 8.60 GS: LT-UNK RC: None NANO: No ROLE: Glass Fiber Layer Component

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-05-13

%: 0.70 - 2.00 GS: LT-UNK RC: None NANO: No ROLE: Glass Fiber Layer Component

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This chemical has been identified and screened by the preparer. Due to its proprietary nature, this chemical and its CAS# were not able to be disclosed on this HPD.

MAGNESIUM ALUMINUM HYDROXIDE CARBONATE

ID: 11097-59-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-05-13

%: 0.39 - 0.52 GS: LT-UNK RC: None NANO: No ROLE: Wear Layer and PVC Mid-Bottom Layer Components

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES:

ZINC DIOLEATE

ID: 557-07-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-05-13

%: **0.16 - 0.26**

GS: **LT-P1**

RC: **None**

NANO: **No**

ROLE: **Wear Layer and PVC Mid-Bottom Layer Components**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**MULTIPLE**

**German FEA - Substances Hazardous to Waters**

**Class 2 - Hazard to Waters**

SUBSTANCE NOTES:

**CALCIUM STEARATE**

ID: **1592-23-0**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-05-13**

%: **0.04 - 0.13**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Wear Layer, Print Layer and PVC Mid-Bottom Layer Components**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

**No warnings found on HPD Priority Hazard Lists**

SUBSTANCE NOTES:

**DIPROPYLENE GLYCOL DIACRYLATE**

ID: **57472-68-1**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-05-13**

%: **0.03 - 0.20**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Top Coating Layer Component**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

**No warnings found on HPD Priority Hazard Lists**

SUBSTANCE NOTES:

**1,3,5-TRIS(2-HYDROXYETHYL) ISOCYANURATE**

ID: **839-90-7**

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-05-13**

%: **0.02 - 0.13**

GS: **LT-UNK**

RC: **None**

NANO: **No**

ROLE: **Wear Layer, Print Layer and PVC Mid-Bottom Layer Components**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found**

**No warnings found on HPD Priority Hazard Lists**

SUBSTANCE NOTES:

**POLY(OXY-1,2-ETHANEDIYL), ALPHA-(1-OXO-2-PROPEN1-YL)-OMEGA-((1-OXO-2-PROPEN-1-YL)OXY)-**

ID: **26570-48-9**

%: **0.02 - 0.15**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Top Coating Layer Component**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found****No warnings found on HPD Priority Hazard Lists**

SUBSTANCE NOTES:

**HEXANEDIOIC ACID, POLYMER WITH 1,2-ETHANEDIOL AND 1,6-DIISOCYANATO-2,2,4(OR 2,4,4)-TRIMETHYLHEXANE, 2-HYDROXYETHYL ACRYLATE-BLOCKED**ID: **141686-56-8**%: **0.02 - 0.13**GS: **NoGS**RC: **None**NANO: **No**ROLE: **Top Coating Layer Component**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**None found****No warnings found on HPD Priority Hazard Lists**

SUBSTANCE NOTES:

**1,6-HEXANEDIOL DIACRYLATE**ID: **13048-33-4**%: **0.00 - 0.05**GS: **LT-P1**RC: **None**NANO: **No**ROLE: **Top Coating Layer Component**

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

**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****MULTIPLE****German FEA - Substances Hazardous to Waters****Class 2 - Hazard to Waters****SKIN SENSITIZE****MAK****Sensitizing Substance Sh - Danger of skin sensitization**

SUBSTANCE NOTES:

**METHYL BENZOYLFORMATE**ID: **15206-55-0**%: **0.00 - 0.03**GS: **LT-UNK**RC: **None**NANO: **No**ROLE: **Top Coating Layer Component**

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

## TRIPROPYLENE GLYCOL DIACRYLATE

ID: 42978-66-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-05-13**

#: **0.00 - 0.03** GS: **LT-P1** RC: **None** NANO: **No** ROLE: **Top Coating Layer Component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CHRON AQUATIC	EU - GHS (H-Statements)	H411 - Toxic to aquatic life with long lasting effects
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
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
SKIN SENSITIZE	MAK	Sensitizing Substance Sh - Danger of skin sensitization
SUBSTANCE NOTES:		

## WATER

ID: 7732-18-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library**

HAZARD SCREENING DATE: **2020-05-13**

#: **0.00 - 0.16** GS: **BM-4** RC: **None** NANO: **No** ROLE: **Wear Layer, Print Layer and PVC Mid-Bottom Layer Components**

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

SUBSTANCE NOTES: The GreenScreen® Benchmark assessment score of BM-4 was provided through the HPD 2.1 Builder Tool.

## 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

### RFCI FloorScore

CERTIFYING PARTY: **Third Party**

APPLICABLE FACILITIES: **5F, Yoonil Bldg. 336, Hyoryeong-ro, Seocho-gu, Seoul, 06721, Korea**

CERTIFICATE URL:

[https://www.scscertified.com/products/cert\\_pdfs/NoxCorporation\\_2019\\_SCS-FS-02632\\_s.pdf](https://www.scscertified.com/products/cert_pdfs/NoxCorporation_2019_SCS-FS-02632_s.pdf)

ISSUE DATE:

**2019-10-01**

EXPIRY

DATE:  
**2020-09-30**

CERTIFIER OR LAB:

**SCS Global Services**

CERTIFICATION AND COMPLIANCE NOTES: **FloorScore® Indoor Air Quality Certified to SCS-EC10.3-2014 v4.0 Registration # SCS-FS-02632**

### LCA

### Environmental Product Declaration (EPD) by SCS

CERTIFYING PARTY: **Third Party**

APPLICABLE FACILITIES: **5F, Yoonil Bldg. 336, Hyoryeong-ro, Seocho-gu, Seoul, 06721, Korea**

CERTIFICATE URL:

[https://www.scscertified.com/products/cert\\_pdfs/SCS-EPD-03972\\_NOX-DesignLVT\\_050316.pdf](https://www.scscertified.com/products/cert_pdfs/SCS-EPD-03972_NOX-DesignLVT_050316.pdf)

ISSUE DATE: **2016-05-03**

EXPIRY DATE: **2021-05-02**

CERTIFIER OR LAB: **SCS Global Services**

CERTIFICATION AND COMPLIANCE NOTES: **Registration# SCS-EPD-03972; Product Category Rule (PCR) for preparing an Environmental Product Declaration (EPD) for Flooring: Carpet, Resilient, Laminate, Ceramic, Wood. NSF International. Version 2. 2014.**

## 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

NOX Corporation worked with an HPDC Approved Preparer to confirm that all residuals and impurities were considered under the preparation of this HPD. This was accomplished by obtaining full formulation disclosure, including residuals and impurities, down to the 100 ppm threshold.





## MANUFACTURER INFORMATION

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MANUFACTURER: **NOX CORPORATION**

ADDRESS: **5F, Yoonil Bldg. 336, Hyoryeong-ro  
Seocho-gu, Seoul 06721, Korea**

WEBSITE:

<https://www.noxglobal.com/eng/w/page/main/main.ph>

CONTACT NAME: **John Kim**

TITLE: **Product Manager of NOX Corporation**

PHONE: **+82-2-520-7690**

EMAIL: **johnkim@noxglobal.com**

## KEY

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**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

**CAN** Cancer

**DEV** Developmental toxicity

**END** Endocrine activity

**EYE** Eye irritation/corrosivity

**GEN** Gene mutation

**GLO** Global warming

**MAM** Mammalian/systemic/organ toxicity

**MUL** Multiple hazards

**NEU** Neurotoxicity

**OZO** Ozone depletion

**PBT** Persistent Bioaccumulative Toxic

**PHY** Physical Hazard (reactive)

**REP** Reproductive toxicity

**RES** Respiratory sensitization

**SKI** Skin sensitization/irritation/corrosivity

**LAN** Land Toxicity

**NF** Not found on Priority Hazard Lists

### 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 (insufficient data to benchmark)

**LT-P1** List Translator Possible Benchmark 1

**LT-1** List Translator Likely Benchmark 1

**LT-UNK** List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)

**NoGS** Unknown (no data on List Translator Lists)

### 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.*