



Recyclable PVC-free Flooring

**TIER ELEMENT PVC FREE INDOOR FLOORING
MATERIAL SAFETY DATA SHEET**

Version 002 (2024-06-18)



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Safety Data Sheet (SDS) Report

SDS number: 240604006SHF

Applicant: Tier Flooring Americas, LLC

Issue Date: 2024-06-18

8560 Belleview Drive, Suite 225, Plano, Texas 75024

Sample Description:

The sample information was submitted and identified on client's behalf to be:

Product Name : TIER Element PVC-free

Physical State : Solid

Data Received : Jun 11, 2024

Data Reviewed : Jun 18, 2024

Service Requested:

Based on the information provided by the applicant, the Safety Data Sheet (SDS) was generated in accordance with the requirements of OSHA HazCom Standard (2012), for details please refer to attached pages.

Authorized By:

On Behalf Of Regulatory Affairs in Intertek Testing Services Ltd., Shanghai



Anna Wang
Technical Manager

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TIER Element PVC-free

Safety Data Sheet

according to US HazCom 2012

Issue date: 6/18/2024 Revision date: 6/18/2024 Version: 1.0 SDS number: 240604006SHF

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : TIER Element PVC-free

1.2. Recommended use and restrictions on use

Use of the substance/mixture : For indoor flooring.

1.3. Supplier

Tier Flooring Americas, LLC
8560 Belleview Drive, Suite 225, Plano, Texas 75024
T: 1-469 734 3498
blair@eva-last.com

1.4. Emergency telephone number

T: 1-469 734 3498

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Respiratory sensitisation, Category 1

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements (GHS US) :

Avoid breathing dust/fume/gas/mist/vapours/spray.

[In case of inadequate ventilation] wear respiratory protection.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a poison center or doctor.

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Carbonic acid, calcium salt (1:1)	CAS-No.: 471-34-1	40 – 60
Polypropylene	CAS-No.: 9003-07-0	20 – 30
Cellulose	CAS-No.: 9004-34-6	5 – 20
N,N'-Ethylenebis(stearamide)	CAS-No.: 110-30-5	2 – 5
2,5-Furandione, polymer with 1-propene	CAS-No.: 25722-45-6	3 – 5
Ethene, homopolymer	CAS-No.: 9002-88-4	3.6 – 4
Polyurethane	CAS-No.: 9009-54-5	1.4 – 2
Aluminum oxide (Al ₂ O ₃)	CAS-No.: 1344-28-1	1 – 1.4
2-Propenoic acid, 1,1'-[[1-methylethylidene]bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]] ester	CAS-No.: 71281-65-7	0.4 – 0.6
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,2-bis[[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]methyl]-1,3-propanediyl ester	CAS-No.: 6683-19-8	0.1 – 0.3
Tris(2,4-di-tert-butylphenyl) phosphite	CAS-No.: 31570-04-4	0.1 – 0.3
1-Propanone, 2-hydroxy-2-methyl-1-phenyl-	CAS-No.: 7473-98-5	0.12 – 0.2
Silica, amorphous, fumed, crystalline-free	CAS-No.: 112945-52-5	0.12 – 0.2
Diazenedicarboxamide	CAS-No.: 123-77-3	0.1 – 0.2

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists. Rinse eyes with water as a precaution. Seek medical attention if ill effect or irritation develops.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released. Thermal decomposition can lead to the release of irritating gases and vapours.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate unnecessary personnel.

6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment. Wear suitable protective clothing. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Collect spillage.
Methods for cleaning up : Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.
Suitable packaging material	: Corrugated cardboard box.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbonic acid, calcium salt (1:1) (471-34-1)

USA - NIOSH - Occupational Exposure Limits

NIOSH REL TWA	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
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Cellulose (9004-34-6)

USA - ACGIH - Occupational Exposure Limits

Local name	Cellulose
ACGIH OEL TWA	10 mg/m ³
Remark (ACGIH)	TLV® Basis: URT irr
Regulatory reference	ACGIH 2024

USA - OSHA - Occupational Exposure Limits

Local name	Cellulose
OSHA PEL TWA	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

USA - NIOSH - Occupational Exposure Limits

NIOSH REL C	10 mg/m ³ CELLULOSE, TOTAL 5 mg/m ³ CELLULOSE, RESPIRABLE
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Silica, amorphous, fumed, crystalline-free (112945-52-5)

USA - OSHA - Occupational Exposure Limits

OSHA PEL TWA	80 mg/m ³ 20 ppm
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USA - NIOSH - Occupational Exposure Limits

NIOSH REL TWA	6 mg/m ³
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Aluminum oxide (Al ₂ O ₃) (1344-28-1)	
USA - OSHA - Occupational Exposure Limits	
Local name	alpha-Alumina
OSHA PEL TWA	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Impermeable protective gloves. protective gloves
Eye protection:
Chemical goggles or safety glasses. Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection. Wear suitable respiratory equipment in case of insufficient ventilation

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Flammability	: Not flammable.
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available

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Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

Carbonic acid, calcium salt (1:1) (471-34-1)

LD50 oral rat	6450 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)

Cellulose (9004-34-6)

LD50 oral rat	> 5 g/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 2000 mg/kg (Source: NLM_CIP)
LC50 Inhalation - Rat	> 5800 mg/m ³ (Exposure time: 4 h Source: NLM_CIP)

Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,2-bis[[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]methyl]-1,3-propanediyl ester (6683-19-8)

LD50 oral rat	> 10250 mg/kg (Source: CHEMVIEW)
LD50 dermal rabbit	> 3160 mg/kg (Source: CHEMVIEW)

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Tris(2,4-di-tert-butylphenyl) phosphite (31570-04-4)	
LD50 oral rat	> 6000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
N,N'-Ethylenebis(stearamide) (110-30-5)	
LD50 oral rat	> 5000 mg/kg (Source: IUCLID)
LD50 dermal rabbit	> 20000 mg/kg (Source: ECHA_API)
1-Propanone, 2-hydroxy-2-methyl-1-phenyl- (7473-98-5)	
LD50 oral rat	1694 mg/kg (Source: NLM_CIP)
LD50 dermal rat	6929 mg/kg (Source: ECHA_API)
Silica, amorphous, fumed, crystalline-free (112945-52-5)	
LD50 oral rat	3160 mg/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 2000 mg/kg
Aluminum oxide (Al₂O₃) (1344-28-1)	
LD50 oral rat	> 5000 mg/kg (Source: IUCLID)
Ethene, homopolymer (9002-88-4)	
LD50 oral rat	> 8 g/kg (Source: NLM_HSDB)
LC50 Inhalation - Rat (Dust/Mist)	75.5 mg/l Source: RTECS
Diazenedicarboxamide (123-77-3)	
LD50 oral rat	> 5000 mg/kg (Source: WHO)
LD50 dermal rabbit	> 2000 mg/kg (Source: OECD_SIDS)
LC50 Inhalation - Rat	> 6100 mg/m ³ (Exposure time: 4 h Source: WHO)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Polypropylene (9003-07-0)	
IARC group	3 - Not classifiable
Polyurethane (9009-54-5)	
IARC group	3 - Not classifiable
Silica, amorphous, fumed, crystalline-free (112945-52-5)	
IARC group	3 - Not classifiable
Ethene, homopolymer (9002-88-4)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	: Not applicable
Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Carbonic acid, calcium salt (1:1) (471-34-1)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l waterflea
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,2-bis[[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]methyl]-1,3-propanediyl ester (6683-19-8)	
LC50 - Fish [1]	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static] Source: IUCLID)
LC50 - Fish [2]	> 100 mg/l (Exposure time: 96 h - Species: Brachydanio rerio Source: IUCLID)
EC50 72h - Algae [1]	> 100 mg/l (Species: Desmodesmus subspicatus)
Tris(2,4-di-tert-butylphenyl) phosphite (31570-04-4)	
NOEC chronic fish	≥ 2 mg/l
NOEC chronic algae	≥ 75.2 mg/l

12.2. Persistence and degradability

TIER Element PVC-free	
Persistence and degradability	No additional information available

12.3. Bioaccumulative potential

Carbonic acid, calcium salt (1:1) (471-34-1)	
BCF - Fish [1]	(no bioaccumulation)
Partition coefficient n-octanol/water (Log Pow)	-2.12
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,2-bis[[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]methyl]-1,3-propanediyl ester (6683-19-8)	
Partition coefficient n-octanol/water (Log Pow)	23 (at 25 °C)
Tris(2,4-di-tert-butylphenyl) phosphite (31570-04-4)	
BCF - Fish [1]	(4.66 dimensionless)
1-Propanone, 2-hydroxy-2-methyl-1-phenyl- (7473-98-5)	
Partition coefficient n-octanol/water (Log Pow)	1.62 (at 25 °C (at pH 5.75))
Diazenedicarboxamide (123-77-3)	
BCF - Fish [1]	(no bioaccumulation expected)
Partition coefficient n-octanol/water (Log Pow)	< 1 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

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Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose of in a safe manner in accordance with local/national regulations.
Ecological information : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

DOT

Not Regulated

TDG

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

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Polyurethane	CAS-No. 9009-54-5	1.4 – 2%
Silica, amorphous, fumed, crystalline-free	CAS-No. 112945-52-5	0.12 – 0.2%
2-Propenoic acid, 1,1'-[(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]] ester	CAS-No. 71281-65-7	0.4 – 0.6%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Aluminum oxide (Al ₂ O ₃)	CAS-No. 1344-28-1	1 – 1.4%
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15.2. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to US HazCom 2012

Revision date : 6/18/2024

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



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While most data have been compiled from research, case histories, experience and testing, small changes in the environment can produce marked differences in performance. The decision to use a material, and in what manner, is made at your own risk. The use of a material and method may, therefore, need to be modified to its intended end use and environment.

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