

SAFETRED

Issued to:	TARKETT
Product specifications	SERENITY, DESIGN, DESIGN ACOUSTIC, DESIGN LOOSELAY, WOOD BUS, ION CONTRAST, ION CONTRAST ACOUSTIC, ION CONTRAST LOOSELAY, ION LINEN, ION LINEN ACOUSTIC, ION LINEN LOOSELAY, RAIL, SPECTRUM, SPECTRUM ACOUSTIC, SPECTRUM LOOSELAY, SPECTRUM BUS, UNIVERSAL, UNIVERSAL ACOUSTIC, UNIVERSAL LOOSELAY, UNIVERSAL PLUS (R11), UNIVERSAL R12, UNIVERSAL BUS
Issue date:	15.12.2022
Expiration date:	14.12.2024
Evaluation threshold:	At least 100 ppm of the final product
After-use scenario:	TARKETT ReStart® Program
EPEA Registry No:	39944.2
MHS Version:	2.0

FUNCTION	CHEMICALS	CAS	CONTENT	EPEA RATING	COMMENT	GS-LT GS-BM ^(b)	REACH
PVC	PVC*	9002-86-2	< 50%		Transitional use of PVC is tolerated in durable applications designed with good materials and a collection and recycling program in place(a). Vinyl chloride content is below 1 ppm in purchased products. Tarkett proposes to take back your installation residues and plans to propose to take back your products after use, thanks to the ReStart® program. Check Tarkett national websites for Restart program availability.	LT-P1	✓
	Polymerization additives	Proprietary 3	< 2.5%			N.I.	-
Fillers	Calcium carbonate*	13397-25-6	< 40%		Fillers consist of pulverized stones (calcium carbonate, dolomite and kaolin) of virgin and recycled origin as well as of other mineral inclusions conveyed by recycled flooring. Low levels of quartz. No concern in the finished product.	None	✓
	Dolomite*	16389-88-1				LT-UNK	✓
	Aluminium oxide*	90669-62-8				None	✓
	Silicon carbide*	409-21-2				LT-1	✓
	Kaolin*	95077-05-7				N.I.	✓
	Aluminium trihydrate*	1333-84-2				LT-UNK	✓
	Glass fibre veil*	65997-17-3				LT-UNK	✓
	Crystalline silica - Quartz type*	14808-60-7				LT-1	✓
	Proprietary	Proprietary 3				N.I.	-
Stabilizers	Soybean oil, epoxidized*	8013-07-8	< 1.8%		ESBO is a scavenger of hydrochloric acid that may be formed during the flooring use period. It has a plasticizing effect in addition. Zinc, an essential trace element for life, belongs to a calcium/zinc based heat stabilizing system. The migration potential of the different components of the heat stabilization system is unknown but expected low. No concern in the finished product.	LT-P1	✓
	Triisodecyl phosphite*	25448-25-3				LT-P1	✓
	Zinc 2-ethylcaproate*	136-53-8				LT-P1	✓
	Proprietary*	Proprietary 2				LT-UNK	✓
		Proprietary 3				LT-P1	✓
				N.I.	-		

FUNCTION	CHEMICALS	CAS	CONTENT	EPEA RATING	COMMENT	GS-LT GS-BM ^(b)	REACH
Plasticizers	1,2-Cyclohexanedicarboxylic acid, 1,2-diisononyl ester* (DINCH)	166412-78-8	< 30%		Alternatives to phthalate plasticizers added directly or in form of recycled flooring. Recycled plasticizers recover their original function. DINCH is produced by hydrogenation of DINP with thus modified properties. No toxicity identifiable, especially no mutagenicity, carcinogenicity or reproductive toxicity observed in animal tests. Capacity of MINCH (primary metabolic product of DINCH) to interfere with the metabolism and differentiation of adipocytes in in-vitro experiments was assumed in 2015 but convincingly refuted in more recent scientific publications. No concern with DEHT, especially no disruption of developmental pathways observed with metabolic products of DEHT. DBT is an equivocal sensitizer. No concern expected with DBT and its synthesis impurity MBT.	LT-UNK	✓
	Terephthalic acid, dioctyl ester* (DEHT)	6422-86-2				LT-UNK	✓
	Dibutyl terephthalate* (DBT)	1962-75-0				None	✓
	1,2,3-Propanetricarboxylic acid, 2-(acetyloxy)-, tributyl ester*	77-90-7				LT-P1	✓
	Bis(2-ethylhexyl)adipate* (DEHA)	103-23-1				LT-P1	✓
	Terephthalic acid, butyl methyl ester* (MBT)	52392-55-9				N.I.	✓
	1,2-Cyclohexanedicarboxylic acid, 1-methyl, 2-iisononyl ester* (MINCH)	Not available				N.I.	✓
Reinforcement	Glass fibre	65997-17-3	< 1.3%		The length of glass fibres exceeds 10 µm. No contribution of the formaldehyde-based binder to formaldehyde emissions of the flooring product. No concern seen.	LT-UNK	✓
	Polyvinyl acetate	93196-02-2				N.I.	✓
	Urea, polymer with formaldehyde	9011-05-6				LT-P1	✓
	Urea, melamine, formaldehyde resin	25036-13-9				LT-UNK	✓
	Proprietary	Proprietary 3				N.I.	-
Pigments	Titanium Dioxide*	13463-67-7	< 2.5%		Potential health issue related to dust inhalation during mining/production of titanium dioxide. No concern in the finished product. Copper containing pigments are not recommended in the context of PVC because of the catalytic activity of copper for the formation of dioxins in case of fire. Chlorinated pigments are not recommended for reasons explicated in "EPEA's position on PVC and chlorine management"(a). They are labelled red for these reasons, even if they are each well below the declaration limit of 100 ppm.	LT-1	✓
	Pigment Blue 15	147-14-8 12239-87-1				LT-UNK	✓
	Pigment Yellow 93	5580-57-4				LT-P1	✓
	Pigment Red 144	5280-78-4				LT-UNK	✓
	Pigment Green 7	1328-53-6				LT-UNK	✓
	Pigment Red 101	1309-37-1				BM1	✓
	Pigment Black 11	1317-61-9				BM-1	✓
	Pigment Yellow 42	51274-00-1				LT-UNK	✓
	Pigment Violet 37	17741-63-8				LT-UNK	✓
Other additives and impurities	Azodicarbonamide	123-77-3	< 1,3%		Chemicals in this section consist of the foaming agent azodicarbonamide and foaming reaction activator. Azodicarbonamide is not present as such anymore after the foaming reaction. Other chemicals come especially from the former surface treatment of recycled flooring and chemically largely defined. No concern in the final product.	LT-UNK	
	Proprietary	Proprietary 2				N.I.	✓
		Proprietary 3				LT-P1	✓
	Cured chemicals of the surface treatment from the recycled flooring content	Proprietary 2 Proprietary 3				N.I.	-
Surface Treatment	Polybutyleneglycol bis(4-benzoylphenoxy)acetate	515136-48-8	< 0,6%		Complex coating macropolymer based on polyurethane acrylate that is UV cured during application. Monomers mentioned are not present as such in the finished product and have lost properties that lead to specification for hazard labelling of raw materials. The coating doesn't contribute to a formaldehyde emission.	None	✓
	Silicon dioxide	69012-64-2				LT-P1	✓
	Dipropylene glycol diacrylate	57472-68-1				LT-UNK	✓
	Paraffin waxes (petroleum), hydrotreated	64742-51-4				LT-UNK	✓
	1-Propanone, 2-hydroxy-2-methyl-1-[4-(1-methylethenyl)phenyl]-, homopolymer	163702-01-0				None	✓
	Tricyclo[5.2.1.0 _{2,6}]decanedimethanol diacrylate	42594-17-2				LT-P1	✓
	Proprietary	Proprietary 2				N.I.	✓
			None	✓			

FUNCTION	CHEMICALS	CAS	CONTENT	EPEA RATING	COMMENT	GS-LT GS-BM ^(b)	REACH
Backing	Polyethylenterephthalate	25038-59-9	< 0,1%		The backing consisting of 2 polymers and a gluing system is used on in DESIGN LOOSELAY product specification.	LT-UNK	✓
	Polypropylene	95751-29-4				N.I.	✓
	Thermoplastic urethane based adhesive	Proprietary 3				N.I.	-
THEREOF							
Content sourced from abundant minerals			< 40%	Mineral fillers and the chlorine part of PVC are most predominant contributors to this figure. Only virgin raw material figures are counted in this section.			
Recycled content	- Internal post-industrial source (Reprocessed own production output)		≤42%	Raw materials used to generate the recycled content have all an industrial pre-use origin and are therefore chemically largely defined. The contribution of the recycled content is highlighted with * after the chemical name. The contribution of post-installation recycled content is < 1%.			
	- Post-installation / Pre-use source						
	- Post-use source						
Biologically renewable content	- Animal		-	No raw materials of animal origin identifiable in the product build-up.			
	- Vegetal		< 1%	Epoxidized Soybean oil and fatty acid derivatives are obtained from vegetal sources.			

EPEA's rating methodology is based on the Cradle to Cradle approach with the European Precautionary principle. It is made in relation with a quality target, an after-use scenario and on the background of the specific supply chain materials used by the article's manufacturer. The assessment of hazard/safety properties of chemicals is made at the best of our knowledge at the date of MHS™ issue (See further [MHS development Guidance V2.0](#)). EPEA believes the data forth herein are accurate as of the date hereof. EPEA makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation, and verification.


Dr. Peter Möslé
 Partner & Managing Director


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Legend:

EPEA RATING:

- No concern
- Moderate concern
- High concern – Task for material optimization
- Unknown concern - Task for knowledge development

REACH compliance:

- ✓: Substance is listed neither in Annex XIV nor in Annex XVII nor as SVHC and complies with European Union Regulation EC 1907/2006 applicable to this article.
- XVII** or **XIV**: Substance listed in Annex XVII (Restriction) or Annex XIV (Authorisation) of REACH regulation applicable to this article
- SVHC**: Substance of Very High Concern. Candidate for listing in Annex XIV (Authorization list) of REACH Regulation at a concentration above 0.1%
- : Not applicable due to missing CAS

GS-LT^(b)

- LT-1**: Chemical is found on an authoritative list of the most-toxic chemicals
- LT-P1**: Chemical may be a serious hazard, but the confidence level is lower
- LT-UNK**: Unknown (no data on List Translator Lists)

GS- BM^(b)

- BM1**: Avoid: Chemical of High Concern
- BM2**: Use but search for Safer Substitutes
- BM3**: Use but still opportunity for improvement
- BM4**: Prefer: Safer Chemical
- BMU**: "Unspecified"; insufficient data
- N.I.** (No GS rating): Chemical is not listed in the source of GS and GS-LT ratings

(a) Please refer to [EPEA's position on PVC and chlorine management](#)

(b) GreenScreen List Translator Score and GreenScreen Benchmark Score according to [Toxnot](#)

Proprietary 1, 2 or 3: Distinguishing between owners of information (see [MHS Development Guidance V2.0](#))