MHS

Material Health Statement

Tarkett

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MHS står för "Material Health Statement" och är ett dokument framtaget för att transparent redovisa ett materials hälsoprofil, tredjepartsverifierat av EPEA (Agency for Environmental Protection Encouragement Agency). Denna materialutvärderingsdeklaration är ett frivilligt initiativ från Tarkett som bygger på resultaten från Cradle to Cradle´s utvärderingsprocess för en produkts kemiska innehåll.

I första stege sker en inventering av de råvaror som används i våra produkter ner till 0,01 viktprocent. Detta steg görs av EPEA i nära samarbete med Tarketts leverantörer. Därefter görs en risk-klassificering med hjälp av REACH- och CLP-reglering samt Green Screen List Translator (GS-LT, som är en amerikansk klassificering av kemikalier), tillsammans med mer än 100 kemiska risk-listor och vetenskapliga källor till toxikologisk information för respektive ämne.

Efter att material har utvärderats, inklusive risk i den avsedda användningen (specifikt golv), ges de en färgkodad rekommendation:

- Mörkgrön: "No concern" (Ingen risk)
- Ljusgrön: "Moderate concern" (Låg risk)
- Röd: "High concern, task for material optimization" (Hög risk. Uppgift för materialoptimering.)
- Grå: "Unknown concern, task for knowledge development" Okänd risk. Uppgift för kunskapsutveckling.)

Obs: Samtliga ingredienser som används av Tarkett överensstämmer med REACH-förordningen. EPEA:s rekommendationer kring materialoptimering handlar om att proaktivt minska hälso- eller miljöpåverkan långt utöver minimikraven för REACH, där ju deklarationsplikten är begränsad till 0,1 % av SVHC och kandidatämnen (bilagorna XIV och XVII) i REACH-förordningen.

Material Health Statement - MHS™

EPEA The Cradle of Cradle to Cradle

OMNISPORTS

Issued to: Tarkett

Issue date: October 4., 2017

Expiration date: October 3., 2019

Evaluation threshold: At least 100 ppm of the final product

After-use scenario: Tarkett ReStart® program

EPEA Registry No: 39859.1 MHS Version: 2.0

MATERIAL FUNCTION	CHEMICAL COMPONENTS	CASRN	% IN PRODUCT	EPEA RATING*	COMMENT ON EPEA RATING	GS-LT/ GS-BM**	REACH
Polymer	PVC	9002-86-2	25-35		Transitional use of PVC is tolerated in durable applications designed with safe materials and a collection and recycling program in place. Vinyl chloride monomer content is below 1ppm. Tarkett provides for after use a take back guarantee within the ReStart reclaiming program. For more information, please visit EPEA's position on PVC and chlorine management**. Pre-additives unknown.	LT-UNK	✓
	Pre-additives	Proprietary 3	<2			N.I.	✓
Plasticizer	Benzoic acid nonyl ester (INB)	670241-72-2	15-30		Alternatives to phthalate plasticizers. INB, for which there good indication of absence of (eco)toxicological relevance, is ready biodegradable. 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 metobolism and differentiation of adipocytes in vitro experiments was object of a publication of 2015. DBT is an equivocal sensitizer.	N.I.	✓
	Dibutyl terephtalate (DBT)	1962-75-0				N.I.	✓
	Diisonylcyclohexane (DINCH)	166412-78-8				LT-UNK	✓
	Acetyltributyl Citrate	77-90-7				LT-P1	✓
	Di-2-ethylhexyl-adipate	103-23-1				LT-P1	✓
Heat Stabilizer s	Epoxidized soybean oil	8013-07-8	<1		Acts as plasticizer and scavenger of hydrochloric acid that may be formed during the flooring use.	LT-UNK	✓
	Tris(isotridecyl) phosphite	77745-66-5			Weak sensitization potential, migration potential unknown	LT-P1	✓
	Zinc octanoate	136-53-8			Zinc is essential trace element. Migration potential of the different components of the heat stabilization system is unknown. Barium has no biological role and toxic in form of soluble salts. Planned further evolution of recipes to substitute barium octanoate and increase the level of chemical definition of inputs.		✓
	Zinc octanoate, basic	85203-81-2				LT-UNK	✓
	Potassium octanoate	764-71-6				LT-UNK	✓
	Sodium octanoate	1984-06-1				LT-UNK	✓
	2-(2-butoxyethoxy)-ethanol	112-34-5				LT-P1	✓
	Barium octanoate	2457-01-4				LT-UNK	✓
Filler	Calcium Carbonate	1317-65-3	18-30		Natural minerals used with low levels of quartz. No concern in the finished product.	LT-UNK	✓
	Quartz	14808-60-7	<0.03			BM1	✓
Pigments	Titanium dioxide	1317-70-0	<0.5		Potential health issue related to dust inhalation during mining/production. No concern in the finished product.	LT-1	✓
	Pigment black 7	12768-98-8				N.I.	✓
	Defined pigments	Proprietary 2			Chlorinated pigments and pigments containing copper represented.	BM3 LT-UNK	✓
	Undefined pigments	Proprietary 3				N.I.	✓
Carrier	Nonwoven glass fiber tissue	Proprietary 3	<1		The length of glass fibers exceeds 10 microns; Assessment pending.	N.I.	✓
	Binder	Proprietary 3				N.I.	✓

MATERIAL FUNCTION	CHEMICAL COMPONENTS	CASRN	% IN PRODUCT	EPEA RATING*	COMMENT ON EPEA RATING	GS-LT/ GS-BM**	REACH
Coating	Dipentaerithrytol hexacrylate	29570-58-9	<1		Polyurethane acrylate coating chemistry that is UV cured during application.	N.I.	✓
	Components of aliphatic waterborne urethane	Proprietary 3				N.I.	✓
	Water	7732-18-5				N.I.	✓
Flame retardants	Aluminium hydroxide	21645-51-2	<2		Planned evolution of the recipe for substitution of this Antimony trioxide that is classified for carcinogenicity.	BM2	✓
	Antimony trioxide	1309-64-4	<0.5			BM1	✓
Blowing Agent	Azodicarbonamide (residual)	123-77-3	<0.1		Azodicarbonamide has mutagenic potential and is classified as substance of very high concern (SVHC) in the EU for its strong sensitization potential. It is decomposed to benign chemicals during the blowing reaction and present at most as traces in the finished product.	LT-UNK	✓
	Zinc oxide	1314-13-2	<0.2			LT-P1	✓
Other	Wetting & Dispersing additive	Proprietary 3	<1		Proprietary polar acidic ester of long chain alcohols	N.I.	✓
	methyl butyl terephthalate	52392-55-9	<0.15		Plasticizer synthesis impurity	N.I.	✓
TOTAL VIRGIN CONTENT			**75 - 80**				

UNDEFINED	% IN PRODUCT	COMMENT
Recycled PVC flooring	20 - 25	Mainly post-industrial PVC of Tarkett (composition see above), and some post-consumer PVC being REACH compliant.
Other undefined	<1.2	Coming from the undefined part of some production inputs

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 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.

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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 complies with REACH regulation European Union Regulation EC 1907/2006 applicable to this article or substance is listed neither in Annex XIV nor in Annex XVII nor as SVHC
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%

GS-LT*
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*
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

* GreenScreen List Translator Score and GreenScreen Benchmark Score according to Toxnot classification (https://toxnot.com/)

** For EPEA's position on PVC and chlorine management. Please see: http://epea.com/de/node/1322

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