ethos® Modular with Omnicoat Technology

Issued to: TARKETT

Product specifications: ethos® Modular with Omnicoat Technology™, Powerbond® ethos® cushion, and Powerbond® ethos® cushion RS

Issue date: 02 March 2023

Expiration date: 29 October 2023

Evaluation threshold: At least 100 ppm of the final product

After-use scenario: Tarkett ReStart® program

EPEA Registry No: 40576

5536 / C2C V3.1

MHS Version: 2.0

FUNCTION	CHEMICALS	CAS	CONTENT	EPEA RATING	COMMENT	GS-LT GS-BM[b]	REACH
Polymers	Polyvinyl butyral	9003-62-7	< 60%		Polymers used in different layers of the carpet. Polyamide 6, the main polymer the yarn is consisting of, is a state-of-the-art technical nutrient which can be depolymerized for subsequent repolymerization to virgin-like quality. This provides ethos carpets based on polyamide 6 yarns with the best outlook for recyclability at a high quality level.	LT-UNK	✓
	Polyamide 6	25038-54-4				LT-UNK	✓
	Polyamide 6.6	9011-55-6				N.I.	✓
	Polyethylene terephthalate	25038-59-9				LT-UNK	✓
	Proprietary	Proprietary 2				LT-UNK	✓
						None	✓
Fillers	Calcium carbonate	13397-25-6	< 60%		The filler system consists of crushed natural minerals and ATH. ATH is used also for its flame retardant properties. The natural minerals can contain up to 1% quartz resulting in potential health issues related to dust inhalation during mining. No concern in the finished product.	None	✓
	Dolomite	16389-88-1				LT-UNK	✓
	Magnesium carbonate hydroxide	12125-28-9				LT-UNK	✓
	Aluminium trihydrate (ATH)	1333-84-2				LT-UNK	✓
	Crystalline silica - Quartz type	14808-60-7				LT-1	✓
	Proprietary	Proprietary 2				LT-UNK	✓
Reinforcement	Glass fibres	65997-17-3	< 2.0%		Nonwoven web composed of glass fibres oriented in a random pattern and bonded together with auxiliary binding chemicals. Glass fibres are embedded in the heavy coating. No concern.	LT-UNK	✓
Coloration agents	Titanium Dioxide	13463-67-7	< 0.3%		Potential health issues related to dust inhalation during production of mineral pigments. No concern in the finished product. Contained halogens and heavy metals in organic coloration agents as well as the sensitization potential of one of them determine red ratings. An issue during use is unlikely due to the tight bond of the colorant with the fibre material. However it can present an occupational issue for workers.	LT-1	✓
	Carbon Black	61512-59-2				BM1	✓
	Iron oxide (Fe2O3)	1309-37-1				BM1	✓
	Iron oxide (Fe2O3)	1309-37-1				BM1	✓
	Pigment Brown 24	68186-90-3				BM1	✓
	Pigment Yellow 119	68187-51-9				LT-UNK	✓
	Pigment Red 149	4948-15-6				BM1	✓
	Pigment Yellow 147	4118-16-5				LT-UNK	✓
	Pigment Blue 28	68186-86-7				LT-1	✓
	Copper, [29H,31H-phthalocyaninato(2-)-N29,N30, N31,N32]-, (1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)methyl derivs.	68411-06-3				LT-UNK	✓

FUNCTION	CHEMICALS	CAS	CONTENT	EPEA RATING	COMMENT	GS-LT GS-BM[(b)]	REACH
Coloration agents	Pigment Blue 15:1	12239-87-1			The chemical identity of one coloration agent is defined but no (eco)toxicological data are available. This explains the grey rating. Few agents are not explicitly defined (Proprietary 3) but likely to be encompassed in the list of defined ones (explicit CAS and Proprietary 2).	LT-UNK	✓
	Pigment Yellow 184	14059-33-7				LT-UNK	✓
	Pigment Yellow 150	872613-79-1				N.I.	✓
	Proprietary	Proprietary 2				None	✓
						None	✓
						N.I.	✓
						LT-P1	✓
						LT-UNK	✓
						LT-P1	✓
						None	✓
		Proprietary 3				N.I.	-
Additives, processing aids, synthesis impurities	Water	7732-18-5	<13.6%		Plasticizer, glass fibre binding chemicals, surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. Processing aids have a functional purpose in the production process or had one to produce raw materials by suppliers. Some are approximately defined or completely undefined (Gray rating) Four chemicals are targets for future recipe optimization even though their quantitative contribution to the overall product composition is minimal.	BM4	✓
	Silicon dioxide	69012-64-2				LT-P1	✓
	Calcium distearate	1592-23-0				LT-UNK	✓
	Talcum	14807-96-6				BM1	✓
	Sulfuric acid	7664-93-9				LT-1	✓
	Potassium bromide	7758-02-3				LT-P1	✓
	Docusate sodium	577-11-7				LT-P1	✓
	1,6-Hexandioldiacrylate	13048-33-4				LT-P1	✓
	2-hydroxy-2-methyl-propiophenone	7473-98-5				LT-P1	✓
	Diethylene glycol	111-46-6				LT-P1	✓
	Benzene, 1,1'-oxybis-, tetrapropylene derivs., sulfonated, sodium salts	119345-04-9				LT-P1	✓
	Melamine	108-78-1				LT-P1	✓
	2-Ethylhexanoic acid diester with triethylene glycol	94-28-0				LT-UNK	✓
	Glycerolpropoxytriacrylate	52408-84-1				LT-UNK	✓
	epsilon-Caprolactam	105-60-2				LT-UNK	✓
	Paraffin waxes (petro-leum), hydrotreated	64742-51-4				LT-UNK	✓
	Urea	57-13-6				LT-UNK	✓
	2-Propenoic acid, polymer with ethene, zinc salt	28208-80-2				LT-UNK	✓
	Sodium oxide	12401-86-4				LT-UNK	✓
	Formic acid	64-18-6				LT-UNK	✓
	2-Propenoic acid, 2-hydro-xyethyl ester, reaction products with 5-isocya-nato-1-(isocyanato-methyl)-1,3,3-trimethyl-cyclohexane and poly-ethylene-polypropylene glycol ether with trimethylolpropane (3:1) acrylate	187348-14-7				None	✓
	Vanadium	7440-62-2				LT1	✓
	Cuprous-I-iodide	1335-23-5				None	✓
	Proprietary	Proprietary 2				LT-UNK	✓
						N.I.	✓
						LT-1	✓
						LT-P1	✓
						LT-UNK	✓
						LT1	✓
						LT-P1	✓
		Proprietary 3				N.I.	-

THEREOF:			
Content sourced from abundant minerals		32 - 53%	Mineral fillers and aluminium trihydrate contribute to this figure.
Recycled content	- Pre-use source	-	
	- Post-use source	23 - 39%	Polyvinylbutyral and associated additives originate from post-use sources
Biologically renewable content	- Animal		Few chemical components with a botanical sourcing are identified in the bill of materials.
	- Vegetal	< 0.4%	

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 (more information in the "MHS development Guidance V2.0", link in the legend below). 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 Mösle
Partner & Managing Director

Dr. Alain Rivière
Scientific Supervisor

EPEA
PART OF DREES & SOMMER

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 or 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) 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)