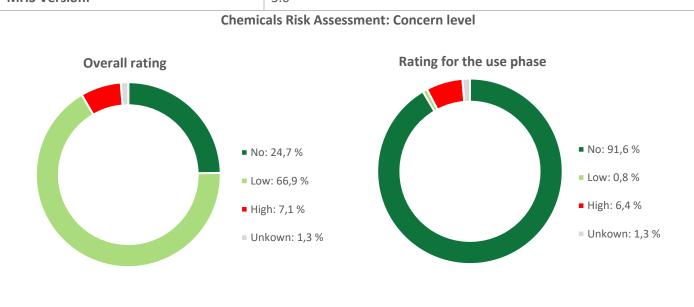


DESSO PA6 Solution Dyed Carpet Tiles

Company:	TARKETT			
Product specifications	DESSO Defend, DESSO Desert, DESSO Essence, DESSO Essence Maze, DESSO Essence Pure, DESSO Essence Roots, DESSO Essence Stripe, DESSO Essence Structure, DESSO Essence Traces, DESSO Grain, DESSO Recharge, DESSO Retrace, DESSO Rock, DESSO Salt			
Issue date:	04. April 2024			
Expiration date:	04. November 2025			
Evaluation and declaration threshold:	At least 100 ppm of the final product			
After-use scenario:	Tarkett proposes to take back your products after use, thanks to the TARKETT ReStart Program. Check Tarkett national websites for Restart program availability.			
EPEA Registry No:	39938.4			
MHS Version:	3.0			



DESSO PA6 Solution Dyed Carpet Tiles

This summary presents the average mass weighted distribution of material health ratings presented on next pages. Ratings address benefits and risks of chemical components of the product for humans and the living environment:

- during the phase of use of the product.
- overall while taking into account a) the last manufacturing step using raw materials leading to them in the product's composition, b) the production of raw materials in the supply chain as far as information is attainable from suppliers or from generic literature, and c) the intended management scenario after use.

The benefit and risk analysis follows a qualitative and quantitative breakdown of the product's chemical composition from the chemical composition of raw materials, a reconstruction of chemical transformation pathways and an anticipation of the chemical's behaviour during the intended after-use processing. This information is combined with physical and (eco)toxicological properties of pure chemicals obtained from governmental and non-governmental scientific organisations to derive a level of concern.

The MHS is making transparent at a point in time results of the company's activities for developing benefits of the product, including environmental and health benefits, with its purchasing and commercialization practices.

Polymers Calcium carbonate Calcium carbonate Cystalline silica - Quarts type ^(h) 14808-60-7 Aluminum trihydrate 1333-84-2 Solyments Carbon black Titanium dioxide Carbon black Titanium dioxide Titanium dioxide Titanium dioxide Carbon black Titanium dioxide Titanium dioxide Titanium dioxide Proprietary Other pigments Proprietary Other pigments Proprietary Other pigments Proprietary Other pigments Proprietary Other pigments or not explicitly defined but like encomposed in the list of defined pigments. Nanomaterials: Not verified Glass scrim Glass piloments embedded in the heavy coating. No concern. Nanomaterials: No Uti-UNK Tit-UNK None None	FUNCTION	CHESTICAL	646	CONTENT	EPEA R	ATING	GS-LT	REACH	
Polymers Polymers involved in different layers of the carpet. Polymeriandle 6, the main polymer the yarn is consisting of, is a state-technical nutrient which can be depolymerized for subsequent repolymerization to virgin-like quality. Synthesis impurity e-cap is of no concern. Nanomaterials: No Calcium carbonate Calcium carbonate Calcium carbonate Calcium carbonate Calcium carbonate Calcium carbonate, obtained as by-product of the processing of drinking water has a mean particle size of 250 µm and low quartz. Aluminium trinydrate is a filler with flame retardant properties and a mean size of 11 µm. No concern in the finished program. Carbon black Titanium dioxide 13463-67-7 Carbon black Titanium dioxide 13463-67-7 LIT-UNK None Potential health issues related to dust inholation during production of mineral pigments. No concern in the finished product. On halogens and heavy metals in arganic pigments determine the red rating. Few pigments are not explicitly defined but like encompassed in the list of defined pigments. Nanomaterials: Not White mineral oil (petroleum) Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities White mineral oil petroleum) Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Proprietary Value in the firit No. Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing of functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating of unctional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating		CHEMICAL	CAS	CONTENT	USE PHASE	OVERALL	GS-BM ^(a)		
Polymers Polymers involved in different layers of the carpet. Polymide 6, the main polymer the yarn is consisting of, is a state-technical nutrient which can be depolymerized for subsequent repolymerization to virgin-like quality. Synthesis impurity e-cap is of no concern. Nanomaterials: No Calcium carbonate Cystalline silica Quart type® 14808-60-7 Aluminum trihydrate 1333-84-2 ≤ 16% 11-1 Aluminum trihydrate is a filler with flame retardant properties and a mean size of 11 μm. No concern in the finished properties and a mean size of 11 μm. No concern in the finish		Polyamide 6	25038-54-4	≤ 14.5%			LT-UNK	✓	
Polymers Polymers Other polymers Other polymers Other polymers involved in different layers of the carpet. Polyamide 6, the main polymer the yarn is consisting of, is a state-technical nutrient which can be depolymerized for subsequent repolymerization to virgin-like quality. Synthesis impurity e-cap is of no concern. Nanomaterials: No Calcium carbonate Castolium silica - Quant type™ 14808-60-7 Aluminum trihydrate 1333-84-2 ≤ 16% BM2 Colcium carbonate, obtained as by-product of the processing of drinking water has a mean porticle size of 250 µm and low quartz. Aluminum trihydrate is a filler with flame retardant properties and a mean size of 11 µm. No concern in the finished polyamoraterials: No Carbon black Titanium dioxide 1334-8-64 Titanium dioxide 13463-67-7 Carbon black Titanium dioxide 13463-67-7 Carbon		Polyethylene terephthalate	25038-59-9	≤ 6%			LT-UNK	✓	
Polymers Other polymers involved in different layers of the carpet. Polymaride 6, the main polymer the yarn is consisting of, is a state-technical nutrient which can be depolymerized for subsequent repolymerization to virgin-like quality. Synthesis impurity e-cap is of no concern. Nanomaterials: No Calcium carbonate Cystalline silica - Quart type™ 14808-60-7 Aluminum trihydrate 1333-84-2 ≤ 16% BM2 Colcium carbonate, obtained as by-product of the processing of drinking water has a mean particle size of 250 m and lox quartz. Aluminum trihydrate is a filler with filame retardant properties and a mean size of 11 μm. No concern in the finished p Nanomaterials: No Carbon black 1334-86-4 Titanium dioxide 13463-67-7 Carbon black 13463-67		Butadiene Styrene Copolymer	9003-55-8	≤ 4.5%			LT-UNK	✓	
Polymers involved in different layers of the carpet. Polyamide 6, the main polymer the yarn is consisting of, is a state-technical nutrient which can be depolymerized for subsequent repolymerization to virgin-like quality. Synthesis impurity e-cap is of no concern. Nanomaterials: No Calcium carbonate 471-34-1 550% LT-UNK Crystolline silica - Quart type ^{IM} 14808-60-7 17.1 Aluminum trihydrate Aluminum trihydrate is a filler with flame retardant properties and a mean particle size of 250 µm and long quartz. Aluminium trihydrate is a filler with flame retardant properties and a mean size of 11 µm. No concern in the finished p Nanomaterials: No Carbon black 1333-86-4 11-1-1 LT-UNK Titanium dioxide 13463-67-7 11-1 LT-UNK Other pigments Proprietary BM1 Potential health issues related to dust inhalation during production of mineral pigments. No concern in the finished product. On hologens and heavy metals in organic pigments determine the red rating. Few pigments are not explicitly defined but like encompassed in the list of defined pigments. Nanomaterials: Not verified Glass scrim 65997-17-3 ≤ 0.8% LT-UNK Alcohols, C16-18, ethoxylated 68439-49-6 1.1-P.1 Alcohols, C16-18, ethoxylated 68439-49-6 1.1-P.1 Alcohols, C16-18, ethoxylated 68439-49-6 1.1-P.1 Other additives, processing aid chemicals and impurities Proprietary 1.1-UNK None None None None Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additive and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating		Polypropylene	9003-07-0	≤ 0.5%			LT-P1	✓	
Fillers Calcium carbonate Calcium carbonate, obtained as by-product of the processing of drinking water has a mean particle size of 250 µm and lot quartz. Aluminium trihydrate is a filler with flame retardant properties and a mean size of 11 µm. No concern in the finished p Nanomaterials: No Carbon black Titanium dioxide 1333-86-4 Titanium dioxide 13463-67-7 Carbon black Titanium dioxide 14-UNK None None Carbon black Titanium dioxide Titanium dioxide Carbon black Titanium dioxide	- 1	Other polymers	Proprietary	≤ 0.5%			LT-UNK	✓	
Fillers F		technical nutrient which can be depolymerized for subsequent repolymerization to virgin-like quality. Synthesis impurity ε -caprolactis of no concern.							
Fillers F		Calcium carbonate	471-34-1				LT-UNK	✓	
Aluminum trihydrate Calcium carbonate, obtained as by-product of the processing of drinking water has a mean particle size of 250 µm and lov quartz. Aluminium trihydrate is a filler with flame retardant properties and a mean size of 11 µm. No concern in the finished p Nanomaterials: No Carbon black Titanium dioxide 1333-86-4 Titanium dioxide 13463-67-7 Other pigments Proprietary Proprietary Other pigments Potential health issues related to dust inhalation during production of mineral pigments. No concern in the finished product. Chalogens and heavy metals in organic pigments determine the red rating. Few pigments are not explicitly defined but like encompassed in the list of defined pigments. Nanomaterials: Not verified Glass scrim Glass scrim Glass scrim Glass filaments embedded in the heavy coating. No concern. Nanomaterials: No White mineral oil (petroleum) Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Proprietary Proprietary Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating a functional purpose in the production process or had one to produce inputs by suppliers.				≤ 50%				✓	
Fillers Calcium carbonate, obtained as by-product of the processing of drinking water has a mean particle size of 250 µm and low quartz. Aluminium trihydrate is a filler with flame retardant properties and a mean size of 11 µm. No concern in the finished power in the finished product. Of the pow		- 11		< 16%				√	
Titanium dioxide Lit-UNK None None None Namomaterials Not verified Glass scrim Glass filaments embedded in the heavy coating. No concern. Nanomaterials: No White mineral oil (petroleum) Alcohols, C16-18, ethoxylated Savfactants, ethoxylated Savfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating		quartz. Aluminium trihydrate is a filler with flame							
Other pigments Other pigments Proprietary Also Other pigments Other pigments Other pigments Other pigments Proprietary Proprietary Also Also Also Also Alcohols, C16-18, ethoxylated Other additives, processing aids, impurities Other additives, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating		Carbon black	1333-86-4				BM1	✓	
Other pigments Other pigments Proprietary Other pigments Other pigments Other pigments Other pigments Proprietary Other pigments Other pigments Proprietary Other pigments Proprietary Other pigments Proprietary Other pigments Other pigments Proprietary Other pigments None BM1 None BM1 None BM1 None BM1 None BM1 Supments end explicitly defined but like red rating. Few pigments are not explicitly defined but like recompassed in the list of defined pigments. Nanomaterials: No verified Glass scrim Glass filaments embedded in the heavy coating. No concern. Nanomaterials: No White mineral oil (petroleum) Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Other additives, processing aid chemicals and impurities None Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating		Titanium dioxide	13463-67-7				LT-1	✓	
Other pigments Other pigments Proprietary Other pigments Other pigments Other pigments Other pigments Proprietary Other pigments Proprietary Other pigments Proprietary Proprietary Other pigments Proprietary Proprietary Proprietary Other pigments Proprietary Proprietary Proprietary Other pigments Description Proprietary Other pigments Description Descript							LT-UNK	✓	
Other pigments Other pigments Proprietary	Coloration agents		Proprietary	< 1%			N.I.	✓	
BM1 None BM1		Otherniaments					LT-UNK	✓	
Potential health issues related to dust inhalation during production of mineral pigments. No concern in the finished product. On halogens and heavy metals in organic pigments determine the red rating. Few pigments are not explicitly defined but like encompassed in the list of defined pigments. Nanomaterials: Not verified Glass scrim Glass filaments embedded in the heavy coating. No concern. Nanomaterials: No White mineral oil (petroleum) Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Proprietary Other additives, processing aid chemicals and impurities Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating		Other pigments					BM1	✓	
Potential health issues related to dust inhalation during production of mineral pigments. No concern in the finished product. Concern halogens and heavy metals in organic pigments determine the red rating. Few pigments are not explicitly defined but like encompassed in the list of defined pigments. Nanomaterials: Not verified Glass scrim Glass scrim Glass filaments embedded in the heavy coating. No concern. Nanomaterials: No White mineral oil (petroleum) Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Other additives, processing aid chemicals and impurities Proprietary Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating							None	✓	
halogens and heavy metals in organic pigments determine the red rating. Few pigments are not explicitly defined but like encompassed in the list of defined pigments. Nanomaterials: Not verified Glass scrim 65997-17-3 ≤ 0.8% LT-UNK Glass filaments embedded in the heavy coating. No concern. Nanomaterials: No White mineral oil (petroleum) 8042-47-5 LT-UNK Alcohols, C16-18, ethoxylated 68439-49-6 LT-P1 Other additives, processing aid chemicals and impurities Proprietary LT-UNK Other additives, processing aid chemicals and impurities None N.I. Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating							BM1	✓	
Reinforcement Glass filaments embedded in the heavy coating. No concern. Nanomaterials: No		encompassed in the list of defined pigments. Nanomaterials: Not verified			ew pigments a	re not explicit		,	
White mineral oil (petroleum) Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Other additives, processing aid chemicals and impurities Other additives, processing aid chemicals and impurities Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating				≤ 0.8%			LT-UNK	✓	
Alcohols, C16-18, ethoxylated Other additives, processing aid chemicals and impurities Proprietary Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating	Reinforcement	Nanomaterials: No							
Other additives, processing aid chemicals and impurities Other additives, processing aid chemicals and impurities Proprietary Other additives, processing aid chemicals and impurities LT-UNK LT-UNK None N.I. Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating		" '						✓	
Other additives, processing aid chemicals and impurities Other additives, processing aid chemicals and impurities Proprietary Proprietary Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating	dditives, processing aids, impurities	Alcohols, C16-18, ethoxylated	68439-49-6					✓	
Other additives, processing aid chemicals and impurities Other additives, processing aid chemicals and impurities Proprietary Proprietary Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating								✓	
Other additives, processing aid chemicals and impurities Proprietary Itives, processing ids, impurities Proprietary Industry Indust			Proprietary					✓	
itives, processing ids, impurities Mone N.I.								✓	
Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating								✓	
Surfactants, thickener, defoamer, antistatic agents, antioxidant, stabilizer, lubricant, etc. No issues. Additives and processing a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating								✓	
a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating								-	
								_	
		a functional purpose in the production process or had one to produce inputs by suppliers. Some are still undefined. Rating based of low content of each chemical in finished products.							
		production of the state of the	-						

DESSO PA6 Solution Dyed Carpet Tiles

FUNCTION	CHEMICAL	CAS	CONTENT	EPEA RATING		GS-LT	REACH
				USE PHASE	OVERALL	GS-BM ^(a)	REACH
	Heavy coating basis	Proprietary	< 12%			LT-1	Prop 65
Heavy coating basis	Bitumen is a residual product of the petroleum refinery industry with variable composition. Red rating due to analytic results show that it contains several different, undefined impurities. Concerns related to safety during production and eventual attempts to recy the heavy coating. Nanomaterials: No						
THEREOF	'						
Content sourced from	abundant minerals		≤ 11%				
	- Internal post-industrial source		-	24 14 6 11 11 11 11			
Recycled content	- Post-installation / Pre-use source		-	Polyamide 6 originates partly from		recycling	
	- Post-use source		≤ 17%	operations of post-use material sources.			
Biologically	- Animal		-	Not applicable			
renewable content	- Vegetal		0%				

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 V3.0 Development Guidance). EPEA believes the data forth herein are accurate as of the date hereof. EPEA makes no warranty with respect thereto and expressly denies 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



Legend:

EPEA RATINGS	REACH compliance:	GS-LT ^(b)	GS- BM ^(b)
No concern low concern High concern – Task for material optimization Risk cannot be verified Task for knowledge development	✓: 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	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)	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 <u>3E Exchange</u>
- (b) Component originating either from the natural resource or from virgin or recycled raw material without functionality in the product's context.
- (c) Proprietaries can be due to the decision of the producer or result from non-communication of the full composition of used raw materials either to producer, or to EPEA, or both.
- (d) EPEA's position on PVC and chlorine management
- (e) Californian Respiratory Exposure Limits (CREL)
- (f) EU-Lowest Concentrations of Interest (LCI values)