# PVC - OMNISPORTS

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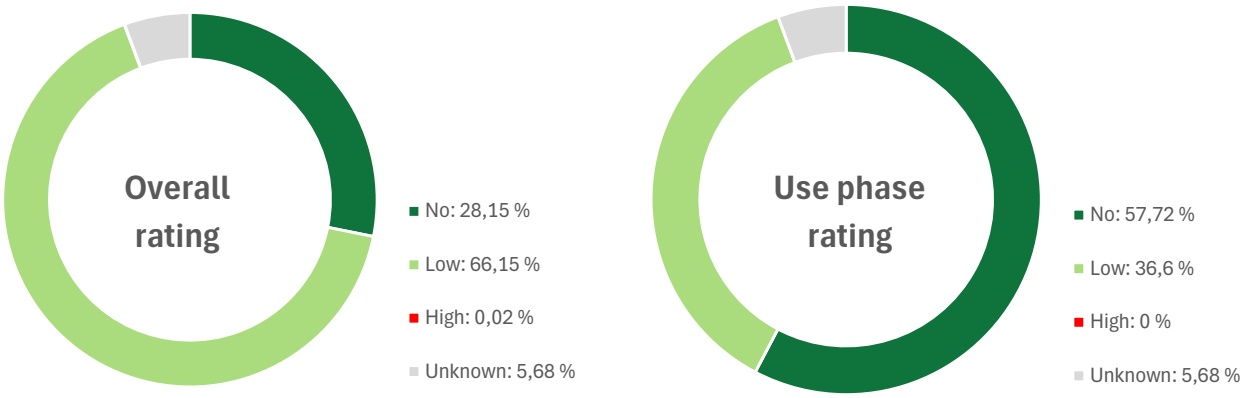
| **Company** | **TARKETT** |
| **Product specifications** | **Omnisports Compact, Omnisport Speed Table Tennis, Omnisports Speed, Omnisports Training, Omnisports PurePlay, Omnisports reference Multi Use, Omnisports Dancefloor, Omnisports Active +** |
| **Issue date:** | **07. May 2025** |
| **Expiration date:** | **06. May 2027** |
| **Declaration and evaluation threshold:** | At least 100 ppm of the final product |
| **After-use scenario:** | ReStart® recycling and take-back programme[(a)] |
| **EPEA Registry No:** | 45596 |
| **MHS Version:** | 3.0 |

**Chemicals Risk Assessment: Concern level**




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,
  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.

| FUNCTION | CHEMICAL | CAS | CONTENT | EPEA RATING USE PHASE | EPEA RATING OVERALL | GS-LT GS-BM[(c)] | REACH |
|---|---|---|---|---|---|---|---|
| 1. PVC | Polyvinyl chloride | 9002-86-2 | 36,68% | | | LT-P1 | ✓ |
| | Proprietary | | 1,93% | | | N.I. | - |
| | *Transitional use of PVC is tolerated in durable applications designed with good materials and a collection and recycling program in place [(b)]. 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. The PVC resin products are produced with chlorine originating from membrane-based chloralkali processes according to today best available technologies. Suppliers of the PVC resin products do not disclose the identity of polymerization auxiliaries. Mentioned amounts are estimate maxima based on scientific literature and the knowledge of the polymerization process type.* ***Check Tarkett national websites for Restart® program availability.*** *Nanomaterials: No* | | | | | | |
| 2. Fillers | Calcium carbonate | 471-34-1 | 26,99% | | | LT-UNK | ✓ |
| | Magnesium carbonate | 546-93-0 | | | | LT-UNK | ✓ |
| | Dolomite | 16389-88-1 | | | | LT-UNK | ✓ |
| | Quartz | 14808-60-7 | | | | LT-1 | ✓ |
| | Glass, oxide, chemicals | 65997-17-3 | | | | LT-1 | ✓ |
| | *Fillers consist of pulverized calcium carbonate of virgin and recycled origin as well as of other mineral inclusions conveyed by thermoplastically recycled flooring. Low levels of quartz. No concern in the finished product.* *Nanomaterials: No* | | | | | | |
| 3. Plasticizers | 1,2-Cyclohexanedicarbo-xylic acid, diisononyl ester (DINCH) | 166412-78-8 | 25,67% | | | LT-UNK | ✓ |
| | *1,4-benzenedicarboxylic acid, butyl methyl ester (MINCH)* | 52392-55-9 | | | | N.I. | ✓ |
| | Dibutyl terephthalate (DBT) | 1962-75-0 | | | | None | ✓ |
| | Bis(2-ethylhexyl) adipate (DEHA) | 103-23-1 | | | | LT-P1 | ✓ |
| | Tributyl O-acetylcitrate | 77-90-7 | | | | LT-P1 | ✓ |
| | Dioctyl terephthalate (DOTP) | 4654-26-6 | | | | None | ✓ |
| | Benzoic acid, C9-11 , C10-rich, branched alkyl esters | 131298-44-7 | | | | LT-UNK | ✓ |
| | *DINCH, DEHA and DBT are alternatives to phthalate plasticizers partly approved for food contact applications with high migration limits reflecting a much better safety profile. No concern with DOTP, especially no disruption of developmental pathways observed with metabolic products of DOTP. With DINCH no toxicity is identifiable, especially no mutagenicity, carcinogenicity or reproductive toxicity observed in animal tests. No concern with the synthesis impurity MINCH present at a level < 0.1% in the total composition. DBT is an equivocal sensitizer. The last three mentioned plasticizers sum up to about 3% of the total plasticizer amount. Nanomaterials: No* | | | | | | |

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| **4. Heat stabilizers** | Soybean oil, epoxidized | 8013-07-8 | 1,15% | | | LT-P1 | ✓ |
| | Zinc bis(2-ethylhexanoate) | 136-53-8 | | | | LT-1 | ✓ |
| | Zinc neodecanoate | 27253-29-8 | | | | LT-P1 | ✓ |
| | Hexanoic acid, 2-ethyl-, zinc salt, basic | 85203-81-2 | | | | LT-1 | ✓ |
| | Triisodecyl phosphite | 25448-25-3 | | | | LT-P1 | ✓ |
| | Calcium neodecanoate | 27253-33-4 | | | | LT-P1 | ✓ |
| | Potassium 2-ethylhexanoate | 3164-85-0 | | | | LT-UNK | ✓ |
| | Sodium 2-ethylhexanoate | 19766-89-3 | | | | LT-UNK | ✓ |
| | Neodecanoic acid, zinc salt, basic | 84418-68-8 | | | | LT-UNK | ✓ |
| | *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.*<br>*Nanomaterials: No* | | | | | | |
| **5. Reinforcement** | Glass, oxide, chemicals | 65997-17-3 | 1,41% | | | LT-1 | ✓ |
| | *A glass fibre veil enhances the dimension stability. It is encapsulated in the flooring matrix. The glass fibre based veil consists of fibres with a diameter of 13 µm. No information on the specific binder composition (About 25% of the reinforcement system encompassed ) but no concern seen.*<br>*Nanomaterials: No* | | | | | | |
| **6. Coloration agents** | Titanium dioxide | 13463-67-7 | 0,50% | | | LT-1 | ✓ |
| | Carbon black | 1333-86-4 | | | | BM1 | ✓ |
| | *Potential health issue related to dust inhalation during mining/production of titanium dioxide. No concern in the finished product. Other pigments are involved each at a level below the declaration limit.*<br>*Nanomaterials: No for titanium dioxide, not verified, yet for carbon black* | | | | | | |

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| **8. Additives, processing aids, impurities** | Magnesium hydroxide | 1309-42-8 | 5,22% | | | BM3 | ✓ |
| | Fatty acids, C16-18 | 67701-03-5 | | | | LT-UNK | ✓ |
| | Polyethylene terephthalate | 25038-59-9 | | | | LT-P1 | ✓ |
| | 2,2-bis[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate | 4986-89-4 | | | | LT-UNK | ✓ |
| | C,C'-azodi(formamide) | 147-14-8 | | | | LT-UNK | ✓ |
| | Calcium oxide | 1305-78-8 | | | | LT-P1 | ✓ |
| | Oxirane, 2-methyl-, polymer with oxirane, mono(3,5,5-trimethylhexyl) ether | 204336-40-3 | | | | LT-UNK | ✓ |
| | Polynoxylin | 9011-05-6 | | | | LT-P1 | ✓ |
| | Urea, polymer with formaldehyde and 1,3,5-triazine-2,4,6-triamine | 25036-13-9 | | | | LT-UNK | ✓ |
| | Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated | 25322-68-3 | | | | LT-UNK | ✓ |
| | 2-(2-butoxyethoxy)ethanol | 112-34-5 | | | | LT-P1 | ✓ |
| | Propan-2-ol | 8013-70-5 | | | | LT1 | ✓ |
| | Ethanol | 64-17-5 | | | | BM2 | ✓ |
| | Zinc oxide | 91315-44-5 | | | | N.I. | ✓ |
| | Aluminium oxide | 90669-62-8 | | | | LT-1 | ✓ |
| | Silicon dioxide | 7631-86-9 | | | | BM1 | ✓ |
| | Other additives, processing aids, impurities | Proprietary | | | | BM3 | ✓ |
| | | | | | | BM2 | ✓ |
| | | | | | | LT-UNK | ✓ |
| | | | | | | LT-UNK | ✓ |
| | | | | | | LT-UNK | ✓ |
| | | | | | | N.I. | - |
| | *Chemicals in this section consist of 1.) formulation auxiliaries for coloration agents, 2.) chemicals of the recycled input that do not recover functionality after recycling like a series of chemicals originating from chemically defined surface treatments and not present as such but as polymer after curing in the former use of materials, 3.) decomposition products of the foaming agent azodicarbonamide and foaming reaction activator and 4.) chemical components that are not identified by CAS number other than PVC polymerization auxiliaries and remain object of efforts for increasing the chemical definition until the renewal of this document.*<br>*Nanomaterials: Not verified* | | | | | | |

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| | 2,2-bis[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate | 4986-89-4 | 0,46% | | | LT-UNK | ✓ |
| | A mixture mainly based on: 2,3-dihydro-6-(2-hydroxy-2-methyl-1-oxopropyl)-1,1,3-trimethyl-3-[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]-1H-indene; 2,3-dihydro-5-(2-hydroxy-2-methyl-1-oxopropyl)-1,1,3-trimethyl-3-[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]-1H-indene | 163702-01-0 | | | | None | ✓ |
| | Oxirane, 2-methyl-, polymer with oxirane, mono(3,5,5-trimethylhexyl) ether | 204336-40-3 | | | | LT-UNK | ✓ |
| **9. Surface Treatment** | Polynoxylin | 9011-05-6 | | | | LT-P1 | ✓ |
| | 2-hydroxy-2-methylpropiophenone | 7473-98-5 | | | | LT-P1 | ✓ |
| | Triethylamine | 121-44-8 | | | | LT-UNK | ✓ |
| | Silicon dioxide | 7631-86-9 | | | | BM1 | ✓ |
| | Proprietary | | | | | LT-P1 | ✓ |
| | Other precursors or components of a polyacrylicurethane polymer structure | Proprietary | | | | LT-P1 | ✓ |
| | | | | | | LT-UNK | ✓ |
| | | | | | | None | ✓ |
| | | | | | | LT-UNK | ✓ |
| | | | | | | LT-UNK | ✓ |
| | | | | | | LT-P1 | ✓ |
| | Complex macropolymer based on polyurethane acrylate that is UV cured during application. It fulfils a double function as protection of the flooring against abrasion during use and barrier against migration of mobile chemicals to the indoor environment[(e)]. Most of chemicals listed in this section are not present as such in the finished product anymore and have lost properties that lead to specification for hazard labelling of raw materials. While recycling within the ReStart® process, surface treatment chemicals lose their function and contribute as a filler without detrimental impacts to the safety properties of flooring products of the next generation.<br>Nanomaterials: Not verified | | | | | | | |

| RESOURCE ORIGIN | | | |
|---|---|---|---|
| **Content sourced from abundant minerals** | | 35,12% | Calcium carbonate and the chlorine part of the polymer PVC originate from abundantly available resources. Calcium carbonate conveyed with recycled content is counted there. |
| **Recycled content** | - Internal post-industrial | 25,33% | The recycled content originates from materials recovered from former flooring applications. |
| | - Post-installation | - | |
| | - Post-use source | - | |
| **Biologically renewable content** | - Animal | - | No materials in the production are identifiable with an animal origin. |
| | - Vegetal | 1,39% | |

*EPEA's rating methodology [(d)] 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. 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.*

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**Legend:**

| EPEA RATINGS | REACH compliance | GS-LT / GS- BM[(a)] |
|---|---|---|
| No concern | ✓: 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<br>**XVII or XIV**: Substance listed in Annex XVII (Restriction) or Annex XIV (Authorisation) of REACH regulation applicable to this article<br>**SVHC**: Substance of Very High Concern. Candidate for listing in Annex XIV (Authorization list) of REACH Regulation at a concentration above 0.1%<br>**-** : Not applicable due to missing CAS# | **LT-1**: Chemical is found on an authoritative list of the most-toxic chemicals<br>**LT-P1**: Chemical may be a serious hazard, but the confidence level is lower<br>**LT-UNK**: Unknown (no data on List Translator Lists)<br>**BM1**: Avoid: Chemical of High Concern<br>**BM2**: Use but search for Safer Substitutes<br>**BM3**: Use but still opportunity for improvement<br>**BM4**: Prefer: Safer Chemical<br>**BMU**: "Unspecified"; insufficient data<br>**N.I.**: (No GS rating): Chemical is not listed in the source of GS and GS-LT ratings |
| low concern | | |
| High concern. Task for material optimization | | |
| Risk cannot be verified. Task for knowledge development | | |

(a) ReStart® recycling and take-back programme(a)
https://professionals.tarkett.com/en_EU/node/restart-recycling-take-back-programme-9721

(b) Charter for a responsible use of PVC and chlorine management
https://www.epea.com/en/news/pvc-chlorine-management

(c) GreenScreen List Translator Score and GreenScreen Benchmark Score according to 3E Exchange
https://exchange.3eco.com/Substances/Search

(d) EPEA MHS V3.0 Development Guidance
https://epea.com/fileadmin/user_upload/2.0_Leistungen/MHS_Guidance_document_V3.0_EPEA_15.09.2023.pdf

(e) Indoor Air Comfort® GOLD certified by Eurofins (IACG-30-04-02-2024)
https://www.eurofins.com/consumer-product-testing/industries/construction-building/indoor-air-comfort/indoor-air-comfort-certification/