Contracting organization	Mascot International A/S, Denmark		
Project team	Corporate Responsibility Department, Mascot International A/S		
Review of Mascot's Life-Cycle Assessment (LCA) methodology and product LCA	Quantis Sàrl, Switzerland		
Method validity date	December 2023 Methodology is valid for 5 years		
Method	ISO 14040:2006 + A1:2020 / ISO 14044:2006 + A1:2018 + A2:2020. Product Environmental Footprint Category Rules (PEFCR) for Apparel and Footwear is followed when possible.		
Description of system boundaries	Cradle to grave		
LCIA method	EF 3.1 (adapted)		
Data collection	Primary data – main source. Generic data from ecoinvent v.3.10 APOS database Reference year is 2023		
LCA software used	SimaPro v.9.6.0.1		
Data quality	Method for data quality rating (DQR) developed in alignment with the PEF requirements.		
Data quality declaration	High (rated as described in PEFCR for Apparel and Footwear).		
Limitations	Style studies are based on reference sizes as defined in PEFCR for apparel and footwear. Current model is also based on reference colours. For other sizes and colours, the reader is encouraged to bear this in mind.		
LCA methodology summary report	Contact <u>responsibility@mascot.dk</u> if you are interested in the report.		

Main fabric: 88% PES/12% EOL

# LIFE CYCLE ASSESSMENT FACTSHEET

March 2025 version 2.1

#### **TARGET GROUP**

The 18047 is part of a collection designed for a broad target group in different work situations within trade, construction, manufacturing, industry and businesses with laundry agreements.

#### LONG-LASTING DURABILITY

By analysing fabric performance requirements and collecting data on customer experience, the LCA is verified by Quantis for an estimated duration of service of use in hard working situations and with industrial wash every week.

#### **CRADLE-TO-GRAVE**

Cradle-to-grave is a scoping of the LCA that calculates the entire lifecycle of a product from Extraction of Raw materials to the Use & Wash and End-of-Life stages. Cradle-to-grave results are presented per use according to PEF Category Rules for Apparel and Footwear.

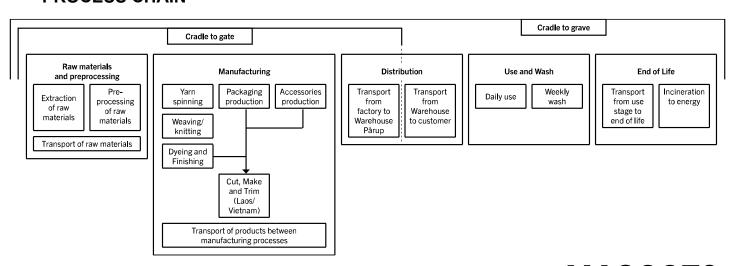
## **METHODOLOGY**

MASCOT LCAs is mainly based on primary data from own factories and suppliers. MASCOT LCAs are calculated according to ISO14040/44. The method is verified by Quantis and applies to all colours.



Cradle to Grave: 0,0534kg CO<sub>2</sub> per use Based on an ISO compliant methodology verified by Quantis

### **PROCESS CHAIN**







Main fabric: 88% PES/12% EOL

## THE 16 IMPACT FACTORS

Impact category	Damage assessment	Impact to-gate	Impact to-grave
	unit	per garment	per use
Acidification	mol H⁺ eq	0,0446	0,000222
Climate change	kg CO₂ eq	6,95	0,0534
Climate change - Biogenic	kg CO₂ eq	0,0133	0,000501
Climate change - Fossil	kg CO₂ eq	6,92	0,0518
Climate change - Land use and LU change	kg CO₂ eq	0,017	0,00105
Ecotoxicity, freshwater	CTUe	26,7	0,46
Ecotoxicity, freshwater - part 2	CTUe	23,5	0,128
Ecotoxicity, freshwater - inorganics	CTUe	39	0,447
Ecotoxicity, freshwater - organics part 1	CTUe	6,95	0,123
Ecotoxicity, freshwater - organics part 2	CTUe	4,19	0,0181
Particulate matter	disease inc.	0,000000393	0,00000000202
Eutrophication, marine	kg N eq	0,0107	0,0000733
Eutrophication, freshwater	kg P eq	0,000393	0,00000596
Eutrophication, terrestrial	mol N eq	0,0906	0,000517
Human toxicity, cancer	CTUh	0,000000021	0,00000000166
Human toxicity, cancer - inorganics	CTUh	0,0000000139	0,0000000000646
Human toxicity, cancer - organics	CTUh	0,000000196	0,0000000016
Human toxicity, non-cancer	CTUh	0,00000133	0,000000000625
Human toxicity, non-cancer - inorganics	CTUh	0,00000121	0,00000000574
Human toxicity, non-cancer - organics	CTUh	0,000000121	0,000000000511
Ionising radiation	kBq U <sup>-235</sup> eq	0,422	0,00182
Land use	Pt	33,4	0,263
Ozone depletion	kg CFC11 eq	0,00000823	0,000000198
Photochemical ozone formation	kg NMVOC eq	0,032	0,000189
Resource use, fossils	MJ	108	0,768
Resource use, minerals and metals	kg Sb eq	0,000142	0,000000456
Water use	m³ depriv.	13,8	0,0415

