

# LCA Information

Style nr. 19678-236

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 2024
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 <a href="mailto:responsibility@mascot.dk">responsibility@mascot.dk</a> if you are interested in the report.

# LIFE CYCLE ASSESSMENT FACTSHEET

April 2025 version 2.1

## TARGET GROUP

The 19678 is part of a collection designed for a broad target group in different more demanding work situations within contractors, road workers, offshore and wind sector, airport workers and sailors and 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 Gate:  
7,62 kg  
CO<sub>2</sub> per  
garment

Cradle to  
Grave: 0,0742  
kg CO<sub>2</sub> per use

Based on an  
ISO compliant  
methodology  
verified by  
Quantis

## PROCESS CHAIN



## THE 16 IMPACT FACTORS

Impact category	Damage assessment unit	Impact to-gate per garment	Impact to-grave per use
<b>Acidification</b>	mol H <sup>+</sup> eq	0,062	0,000324
<b>Climate change</b>	kg CO <sub>2</sub> eq	7,62	0,0742
Climate change - Biogenic	kg CO <sub>2</sub> eq	0,101	0,000979
Climate change - Fossil	kg CO <sub>2</sub> eq	7,39	0,0714
Climate change - Land use and LU change	kg CO <sub>2</sub> eq	0,122	0,00183
<b>Ecotoxicity, freshwater</b>	CTUe	51,4	0,725
Ecotoxicity, freshwater - part 2	CTUe	45,3	0,218
Ecotoxicity, freshwater - inorganics	CTUe	42,8	0,638
Ecotoxicity, freshwater - organics part 1	CTUe	27,3	0,228
Ecotoxicity, freshwater - organics part 2	CTUe	26,6	0,0766
<b>Particulate matter</b>	disease inc.	0,000000478	0,0000000028
<b>Eutrophication, marine</b>	kg N eq	0,0358	0,000159
<b>Eutrophication, freshwater</b>	kg P eq	0,000938	0,00000987
<b>Eutrophication, terrestrial</b>	mol N eq	0,158	0,000836
<b>Human toxicity, cancer</b>	CTUh	0,0000000186	0,000000000221
Human toxicity, cancer - inorganics	CTUh	0,00000000129	0,0000000000786
Human toxicity, cancer - organics	CTUh	0,0000000173	0,000000000214
<b>Human toxicity, non-cancer</b>	CTUh	0,000000143	0,000000000811
Human toxicity, non-cancer - inorganics	CTUh	0,000000129	0,000000000742
Human toxicity, non-cancer - organics	CTUh	0,0000000145	0,0000000000684
<b>Ionising radiation</b>	kBq U <sup>-235</sup> eq	0,554	0,00255
<b>Land use</b>	Pt	87,3	0,491
<b>Ozone depletion</b>	kg CFC11 eq	0,00000122	0,00000000344
<b>Photochemical ozone formation</b>	kg NMVOC eq	0,0341	0,000253
<b>Resource use, fossils</b>	MJ	103	1,03
<b>Resource use, minerals and metals</b>	kg Sb eq	0,000153	0,000000561
<b>Water use</b>	m <sup>3</sup> depriv.	32,2	0,0901