



2025-09-13

Lyreco LCA

# Life Cycle Assessment

*The methodology in this report is based on ISO 14040*

5.955.877 (sold in PL)

# Summary



## 01 | Methodology



## 02 | Results

# 01

## Methodology

# Environmental Impact Assessment

<b>Functional unit</b>	<p>The functional unit is a quantified performance of a product system for use as a reference unit. One of the primary purposes of a functional unit is to provide a reference to which the input and output data are normalized (in a mathematical sense).</p> <p>The functional unit of this analysis is "100 pair(s) of disposable gloves used once".</p>
<b>Impact Indicator</b>	<p>The impact is measured through the "IPCC 2013 GWP 100a" method.</p>
<b>Electricity impact calculation method</b>	<p>Following guidelines from the GHG Protocol, the impact of electricity is calculated using the location-based approach. This means that the emission factors used represent the average annual carbon intensity of the power grid in the country the processes take place in.</p>
<b>Hypothesis</b>	<p>The Product's material composition is supplemented, if necessary, by secondary information as shown in the list below.</p> <ul style="list-style-type: none"> <li>– Nitrile 100%</li> </ul> <p>Manufacturing Processes and associated loss percentages are assumed based on materials in the product.</p> <p>The electricity is based on the average in the country of manufacturing.</p> <p>Transportation is based on the common routes between the country of manufacturing and the country of sale.</p> <p>No replacements during the lifetime, therefore there are no emissions corresponding to the usage phase of the clipboard.</p> <p>The End of Life is based on the average waste management process of the materials in the product.</p>

# Environmental Impact Assessment

## System Boundaries

The scope of this research includes the complete lifecycle of a pair of disposable gloves from raw material extraction to disposal options for each material, which is the cradle-to-grave perspective.

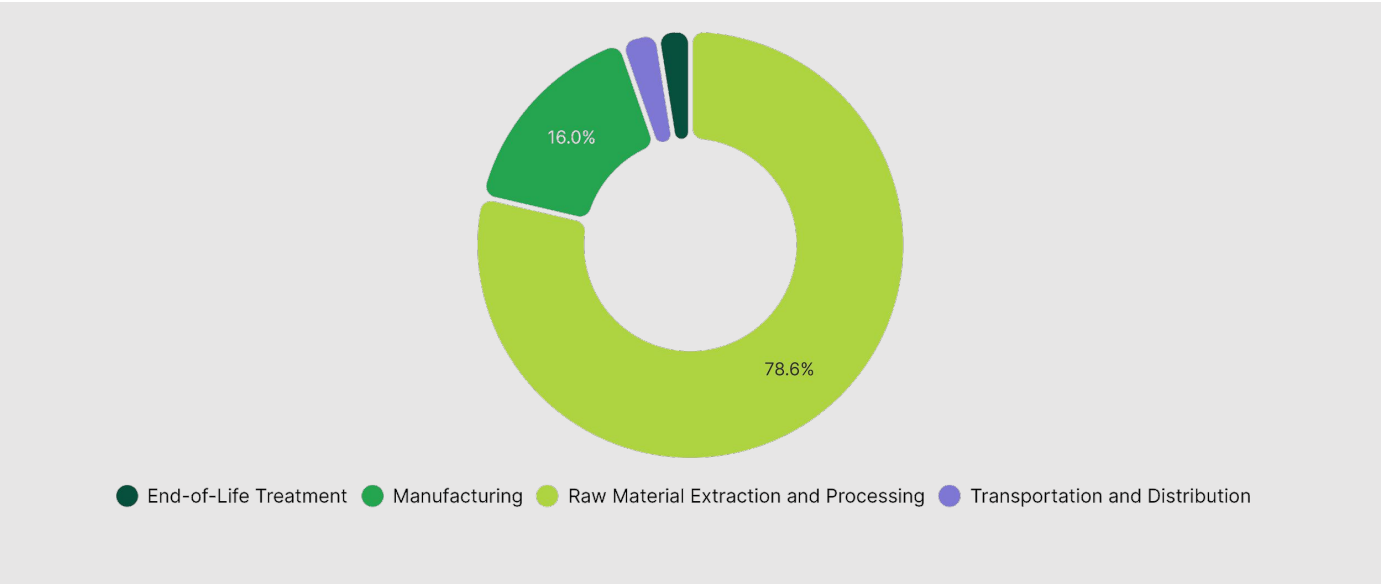
## Exclusions

The impact of secondary packaging is excluded from this assessment.

# 02

## Results

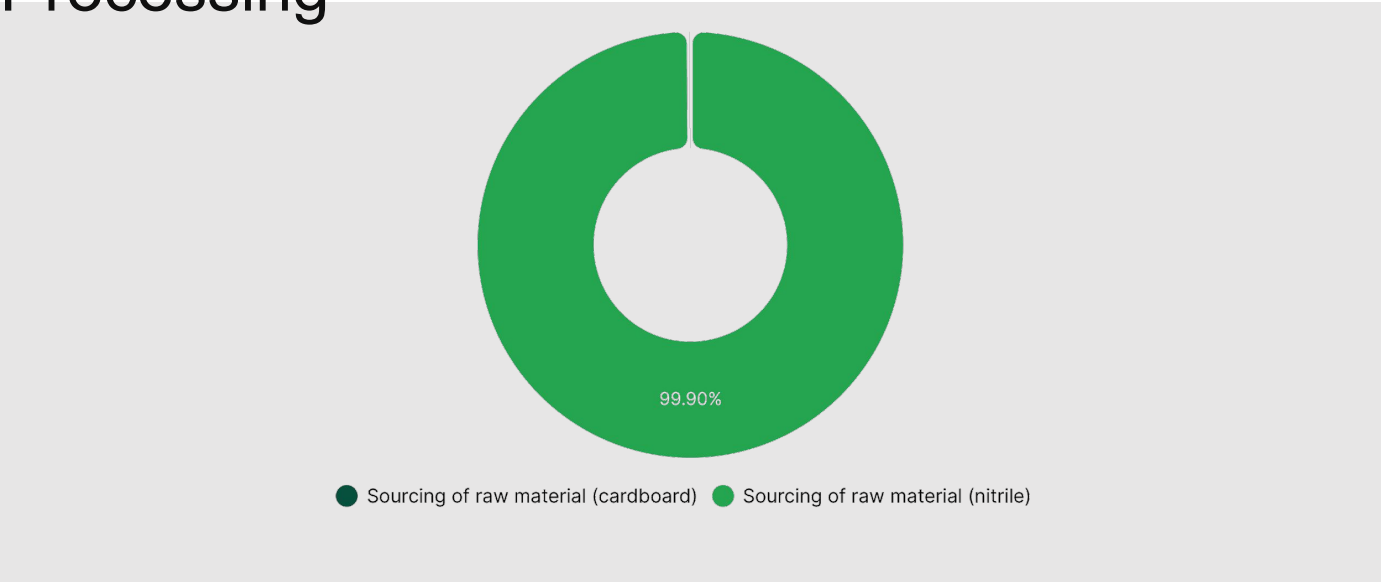
5.955.877 (sold in PL)  
 Climate Change



Step	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Raw Material Extraction and Processing	7.18	78.64 %
Manufacturing	1.46	16.04 %
Transportation and Distribution	0.26	2.81 %
End-of-Life Treatment	0.23	2.51 %
TOTAL	9.13	100.00 %

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# Climate Change - Raw Material Extraction and Processing



Activity	Emission Factor Num	Quantity	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Sourcing of raw material (nitrile)	2	0.76	7.17	99.90 %
Sourcing of raw material (cardboard)	1	0.01	7.49 · 10 <sup>-3</sup>	0.10 %

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TOTAL			7.18	100.00 %
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# Climate Change - Manufacturing



● Electricity usage during material transformation (nitrile)

Activity	Emission Factor Num	Quantity	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Electricity usage during material transformation (nitrile)	3	2.41	1.46	100.00 %
TOTAL			1.46	100.00 %

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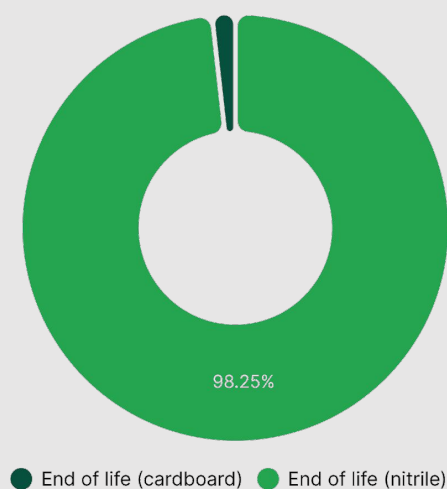
# Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Impact (g CO <sub>2</sub> eq)	Percentage (%)
Freight	4	0.7	256.79	100.00 %
TOTAL			256.79	100.00 %

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# Climate Change - End-of-Life Treatment



Activity	Emission Factor Num	Quantity	Impact (g CO <sub>2</sub> eq)	Percentage (%)
End of life (nitrile)	6	0.69	224.94	98.25 %
End of life (cardboard)	5	6.94 · 10 <sup>-3</sup>	4.01	1.75 %

TOTAL	228.95	100.00 %
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# Contact us

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[www.greenly.earth](http://www.greenly.earth)