

greenly

2025-09-18

Lyreco LCA

Life Cycle Assessment

The methodology in this report is based on ISO 14040

10105157 (sold in FR)

Summary



01 | Methodology



02 | Results

01

Methodology

Environmental Impact Assessment

| | |
|--|---|
| Functional unit | <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). The functional unit of this analysis is "20 page(s) of A4 paper for writing".</p> |
| Impact Indicator | <p>The impact is measured through the "IPCC 2013 GWP 100a" method.</p> |
| Electricity impact calculation method | <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> |
| Hypothesis | |

Environmental Impact Assessment

System Boundaries

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

Exclusions

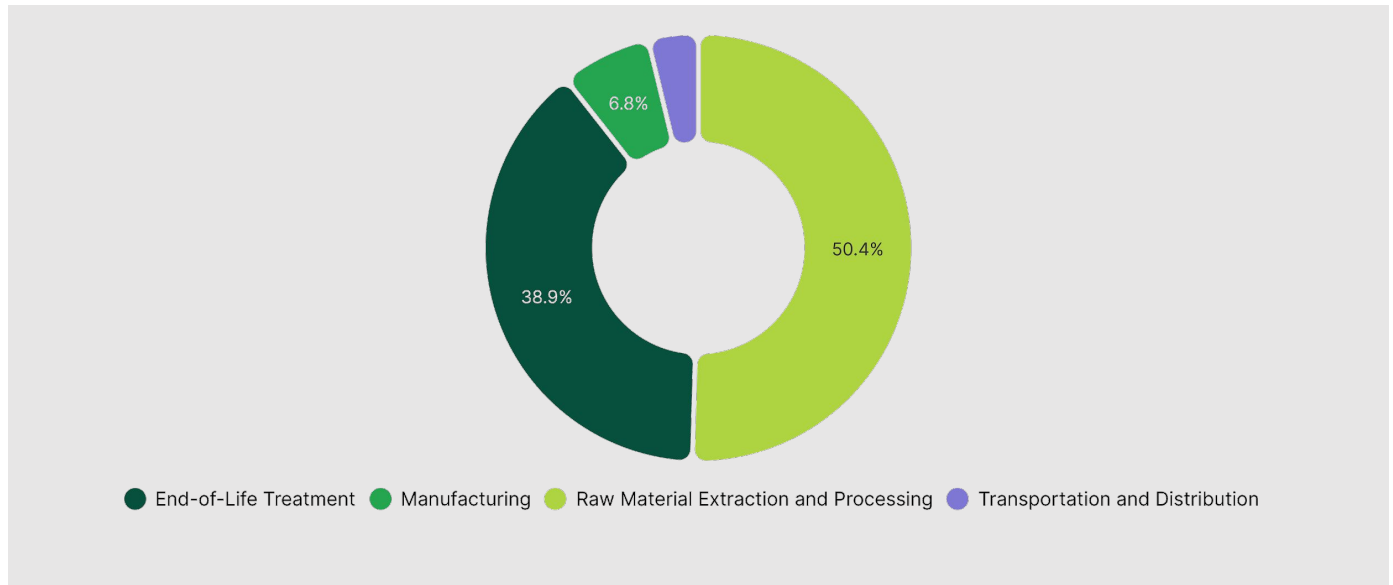
The impact of secondary packaging impact and writing utensils are excluded from this assessment.

02

Results

10105157 (sold in FR)

Climate Change



| Step | Impact (g CO ₂ eq) | Percentage (%) |
|--|-------------------------------|-----------------|
| Raw Material Extraction and Processing | 497.78 | 50.45 % |
| End-of-Life Treatment | 384.29 | 38.95 % |
| Manufacturing | 67.39 | 6.83 % |
| Transportation and Distribution | 37.28 | 3.78 % |
| TOTAL | 986.74 | 100.00 % |

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Climate Change - Raw Material Extraction and Processing



| Activity | Emission Factor Num | Quantity | Impact (g CO ₂ eq) | Percentage (%) |
|---|---------------------|----------|-------------------------------|----------------|
| Sourcing of raw material (bleached kraft paper) | 1 | 1 | 497.78 | 100.00 % |
| | | | | |
| | | | | |
| | | | | |
| TOTAL | | | 497.78 | 100.00 % |

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Climate Change - Manufacturing



| Activity | Emission Factor Num | Quantity | Impact (g CO ₂ eq) | Percentage (%) |
|---|---------------------|----------|-------------------------------|----------------|
| Natural gas usage during material transformation (bleached kraft paper) | 3 | 0.19 | 34.39 | 51.03 % |
| Electricity usage during material transformation (bleached kraft paper) | 2 | 0.35 | 33 | 48.97 % |
| TOTAL | | | 67.39 | 100.00 % |

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Climate Change - Transportation and Distribution



| Activity | Emission Factor Num | Quantity | Impact (g CO ₂ eq) | Percentage (%) |
|----------|---------------------|----------|-------------------------------|----------------|
| Freight | 4 | 0.67 | 37.28 | 100.00 % |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| TOTAL | | | 37.28 | 100.00 % |

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Climate Change - End-of-Life Treatment



| Activity | Emission Factor Num | Quantity | Impact (g CO ₂ eq) | Percentage (%) |
|------------------------------------|---------------------|----------|-------------------------------|----------------|
| End of life (bleached kraft paper) | 5 | 0.67 | 384.29 | 100.00 % |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| TOTAL | | | 384.29 | 100.00 % |

Contact us

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