

greenly

2025-09-17

Lyreco LCA

Life Cycle Assessment

The methodology in this report is based on ISO 14040

6814764 (sold in CH)

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).</p> <p>The functional unit of this analysis is "24 set(s) of bound pages of paper for the purpose of 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 notebook from raw material extraction to disposal options for each material, which is the cradle-to-grave perspective.

Exclusions

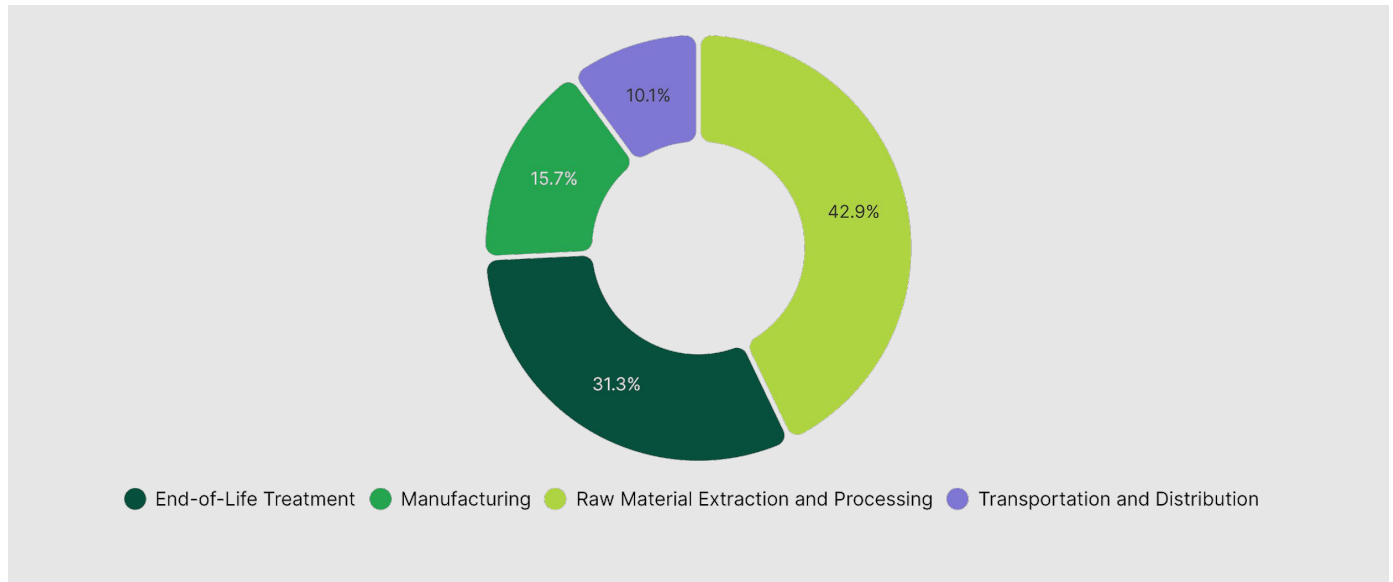
The impact of secondary packaging and writing utensils are excluded from this assessment.

02

Results

6814764 (sold in CH)

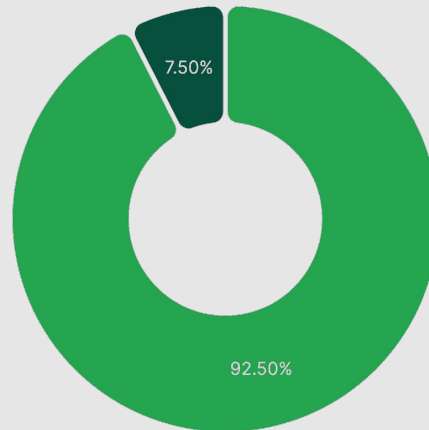
Climate Change



| Step | Impact (kg CO ₂ eq) | Percentage (%) |
|--|--------------------------------|-----------------|
| Raw Material Extraction and Processing | 1.41 | 42.88 % |
| End-of-Life Treatment | 1.03 | 31.35 % |
| Manufacturing | 0.52 | 15.68 % |
| Transportation and Distribution | 0.33 | 10.10 % |
| TOTAL | 3.3 | 100.00 % |

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Climate Change - Raw Material Extraction and Processing



● Sourcing of raw material (adhesive) ● Sourcing of raw material (bleached kraft paper)

| Activity | Emission Factor Num | Quantity | Impact (kg CO ₂ eq) | Percentage (%) |
|---|---------------------|----------|--------------------------------|----------------|
| Sourcing of raw material (bleached kraft paper) | 1 | 2.63 | 1.31 | 92.50 % |
| Sourcing of raw material (adhesive) | 2 | 0.02 | 0.11 | 7.50 % |
| TOTAL | | | 1.41 | 100.00 % |

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Climate Change - Manufacturing



| Activity | Emission Factor Num | Quantity | Impact (g CO ₂ eq) | Percentage (%) |
|---|---------------------|----------|-------------------------------|----------------|
| Electricity usage during material transformation (bleached kraft paper) | 3 | 0.93 | 410.87 | 79.44 % |
| Natural gas usage during material transformation (bleached kraft paper) | 4 | 0.5 | 90.39 | 17.48 % |
| Electricity usage during material transformation (adhesive) | 3 | 0.04 | 15.97 | 3.09 % |
| TOTAL | | | 517.24 | 100.00 % |

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Climate Change - Transportation and Distribution



| Activity | Emission Factor Num | Quantity | Impact (g CO ₂ eq) | Percentage (%) |
|----------|---------------------|----------|-------------------------------|----------------|
| Freight | 5 | 1.77 | 333.14 | 100.00 % |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| TOTAL | | | 333.14 | 100.00 % |

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Climate Change - End-of-Life Treatment



| Activity | Emission Factor Num | Quantity | Impact (kg CO ₂ eq) | Percentage (%) |
|------------------------------------|---------------------|----------|--------------------------------|----------------|
| End of life (bleached kraft paper) | 7 | 1.75 | 1.01 | 97.68 % |
| End of life (adhesive) | 6 | 0.02 | 0.02 | 2.32 % |
| TOTAL | | | 1.03 | 100.00 % |

Contact us

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