2. Lifestyle Products

Company name: Chuo Kagaku Co., Ltd.
Product name: Miyama20-12 (Tray for food packaging)
PCR Name & ID: PA-BC-02

Product Outline (Verified in FY2011)
Main raw materials: PSP sheets (polystyrene paper)/color: white/product size: 124mm x 198mm/product weight (per tray): 4.43g/CFP calculation unit: one case containing 1,200 trays (24 bags with 50 trays in them)/case size: L90cm x W50cm x H60cm/case weight: 7.15kg (including packaging materials)

We are trying to make a mechanism to make our CO₂ emissions visible and swiftly respond to customer needs through the businesses that use our products.

Process: ① Acquisition of raw materials ② Production ③ Transport ④ Use/maintenance ⑤ Disposal/recycle

Total amount (kg-CO₂/product): 41.2kg
Percentage of CO₂ emissions:
- Acquisition of raw materials: 71%
- Production: —
- Transport: —
- Use/maintenance: —
- Disposal/recycle: 29%

Note:
- Only the products which were given verification of their carbon footprints of products (CFP) have been selected and introduced, focusing on products that were disclosed in the 2011 Eco-Products Evaluation. Regarding all the products, please refer to the list of products authorized to use the CFP label at the link below.
- The calculation coverage for carbon footprint has partly changed in FY2010 from that of FY2009. The Sales Process in the transport stage was removed in FY2010.
- With regard to the lower section "Percentage of CO₂ emissions" for each product, an entry of "—" in that section for a final product indicates that no CO₂ is vented during the said process of that product. An entry of "—" for intermediate goods indicates that the said process is not included in the calculation coverage.
3. Clothing-related Products

CHIKUMACO., LTD

**Ladies’ office wear jacket AR4817**
- Product name: Ladies’ office wear jacket AR4817
- PCR Name & ID: PA-AO-03
- Process Outline (Verified in FY2010)
  - Acquisition of raw materials: 61%
  - Production: 18%
  - Transport: 5%
  - Use/maintenance: 7%
  - Disposal/recycle: 6%
- Total amount (kg-CO₂): 14.4kg

**Effective of recycling**
- This product uses 45% recycled polyester as a raw material. In doing so, compared to manufacturing all of the polyester from petroleum resources, CO₂ emissions are reduced by 0.678kg.
- The disposal and recycling stage of this product was calculated as disposal by incineration. However, in cases where customers have an agreement with us regarding recycling, collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared with the CRP value shown above, CO₂ emissions can be reduced by 0.572kg emitted from disposal by incineration. If all of these products are recycled as material for other products, compared to making that material anew, a saving of 1.75kg of CO₂ emissions can be accomplished. (If the size assessed is size 9.)

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquisition of raw materials</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Disposal/recycle</th>
<th>Total amount (kg-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage of CO₂ emissions</strong></td>
<td>61%</td>
<td>18%</td>
<td>5%</td>
<td>7%</td>
<td>6%</td>
<td><strong>14.4kg</strong></td>
</tr>
</tbody>
</table>

CHIKUMACO., LTD

**Ladies’ office wear tight skirt AR3434-1**
- Product name: Ladies’ office wear tight skirt AR3434-1
- PCR Name & ID: PA-AO-03
- Process Outline (Verified in FY2010)
  - Acquisition of raw materials: 68%
  - Production: 12%
  - Transport: 7%
  - Use/maintenance: 5%
  - Disposal/recycle: 8%
- Total amount (kg-CO₂): 9.018kg

**Effective of recycling**
- This product uses 45% recycled polyester as a raw material. In doing so, compared to manufacturing all of the polyester from petroleum resources, CO₂ emissions are reduced by 0.871kg.
- The disposal and recycling stage of this product was calculated as disposal by incineration. However, in cases where customers have an agreement with us regarding recycling, collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared with the CRP value shown above, CO₂ emissions can be reduced by 0.435kg emitted from disposal by incineration. If all of these products are recycled as material for other products, compared to making that material anew, a saving of 2.53kg of CO₂ emissions can be accomplished. (If the size assessed is size 9.)

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquisition of raw materials</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Disposal/recycle</th>
<th>Total amount (kg-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage of CO₂ emissions</strong></td>
<td>68%</td>
<td>12%</td>
<td>7%</td>
<td>5%</td>
<td>8%</td>
<td><strong>9.018kg</strong></td>
</tr>
</tbody>
</table>

CHIKUMACO., LTD

**Ladies’ office wear vest AR2817**
- Product name: Ladies’ office wear vest AR2817
- PCR Name & ID: PA-AO-03
- Process Outline (Verified in FY2010)
  - Acquisition of raw materials: 66%
  - Production: 4%
  - Transport: 6%
  - Use/maintenance: 21%
  - Disposal/recycle: 8%
- Total amount (kg-CO₂): 8.656kg

**Effective of recycling**
- This product uses 45% recycled polyester as a raw material. In doing so, compared to manufacturing all of the polyester from petroleum resources, CO₂ emissions are reduced by 0.416kg.
- The disposal and recycling stage of this product was calculated as disposal by incineration. However, in cases where customers have an agreement with us regarding recycling, collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared with the CRP value shown above, CO₂ emissions can be reduced by 0.300kg emitted from disposal by incineration. If all of these products are recycled as material for other products, compared to making that material anew, a saving of 1.01kg of CO₂ emissions can be accomplished. (If the size assessed is size 9.)

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquisition of raw materials</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Disposal/recycle</th>
<th>Total amount (kg-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage of CO₂ emissions</strong></td>
<td>66%</td>
<td>4%</td>
<td>6%</td>
<td>21%</td>
<td>8%</td>
<td><strong>8.656kg</strong></td>
</tr>
</tbody>
</table>

CHIKUMACO., LTD

**Ladies’ office wear pants AR5433-1**
- Product name: Ladies’ office wear pants AR5433-1
- PCR Name & ID: PA-AO-03
- Process Outline (Verified in FY2010)
  - Acquisition of raw materials: 75%
  - Production: 10%
  - Transport: 3%
  - Use/maintenance: 5%
  - Disposal/recycle: 7%
- Total amount (kg-CO₂): 15.2kg

**Effective of recycling**
- This product uses 45% recycled polyester as a raw material. In doing so, compared to manufacturing all of the polyester from petroleum resources, CO₂ emissions are reduced by 1.70kg.
- The disposal and recycling stage of this product was calculated as disposal by incineration. However, in cases where customers have an agreement with us regarding recycling, collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared with the CRP value shown above, CO₂ emissions can be reduced by 0.746kg emitted from disposal by incineration. If all of these products are recycled as material for other products, compared to making that material anew, a saving of 2.53kg of CO₂ emissions can be accomplished. (If the size assessed is size 9.)

<table>
<thead>
<tr>
<th>Process</th>
<th>Acquisition of raw materials</th>
<th>Production</th>
<th>Transport</th>
<th>Use/maintenance</th>
<th>Disposal/recycle</th>
<th>Total amount (kg-CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage of CO₂ emissions</strong></td>
<td>75%</td>
<td>10%</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
<td><strong>15.2kg</strong></td>
</tr>
</tbody>
</table>
3. Clothing-related Products

**Company name**: CHKUMA&CO., LTD

**Product name**: Ladies' office wear long-sleeved blouse AR1447

**PCR Name & ID**: Uniform

**Product Outline (Verified in FY2010)**

- Polyester 92% (of which 77% is recycled fibers), cotton 8%
- Product weight: 0.297kg (blouse weight: 0.152kg, wrapping and packaging material: 0.145kg)
- Size assessed: Size 9

**EFFECTIVENESS OF RECYCLING**

- The disposal and recycling stage of this product was calculated as disposal by incineration. However, in cases where customers have an agreement with us regarding recycling, collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared with the CRP value shown above, CO₂ emissions can be reduced by 0.53kg emitted from disposal by incineration. If all of these products are recycled as chemical material for other products, compared to making that material anew, a saving of 1.47kg of CO₂ emissions can be accomplished. (If the size assessed is Size 9.)

**Process**

- Acquisition of raw materials
- Production
- Transport
- Use/maintenance
- Disposal/recycle

**Total amount (kg-CO₂/ product)**

- 6.77kg

**Percentage of CO₂ emissions**

- 53% (5.57kg)
- 17% (1.22kg)
- 6% (0.36kg)
- 15% (1.26kg)
- 9% (0.57kg)

**Company name**: CHKUMA&CO., LTD

**Product name**: Men's jacket TE2013

**PCR Name & ID**: Uniform

**Product Outline (Verified in FY2010)**

- Polyester 100%
- Product weight: 0.836kg (vest weight: 0.628kg, wrapping and packaging material, transport material: 0.208kg)
- Size assessed: Size A5

**EFFECTIVENESS OF RECYCLING**

- The disposal and recycling stage of this product was calculated as disposal by incineration. However, in cases where customers have an agreement with us regarding recycling, collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared with the CRP value shown above, CO₂ emissions can be reduced by 1.27kg emitted from disposal by incineration. If all of these products are recycled as chemical material for other products, compared to making that material anew, a saving of 2.46kg of CO₂ emissions can be accomplished. (If the size assessed is Size A5.)

**Process**

- Acquisition of raw materials
- Production
- Transport
- Use/maintenance
- Disposal/recycle

**Total amount (kg-CO₂/ product)**

- 23.2kg

**Percentage of CO₂ emissions**

- 54% (13.14kg)
- 22% (5.09kg)
- 3% (0.64kg)
- 13% (3.02kg)
- 8% (2.34kg)

**Company name**: CHKUMA&CO., LTD

**Product name**: Men's slacks TE5813

**PCR Name & ID**: Uniform

**Product Outline (Verified in FY2010)**

- Polyester 100%
- Product weight: 0.538kg (slacks weight: 0.440kg, wrapping and packaging material, transport material: 0.098kg)
- Size assessed: Size W82

**EFFECTIVENESS OF RECYCLING**

- The disposal and recycling stage of this product was calculated as disposal by incineration. However, in cases where customers have an agreement with us regarding recycling, collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared with the CRP value shown above, CO₂ emissions can be reduced by 0.89kg emitted from disposal by incineration. If all of these products are recycled as chemical material for other products, compared to making that material anew, a saving of 1.49kg of CO₂ emissions can be accomplished. (If the size assessed is W82 size.)

**Process**

- Acquisition of raw materials
- Production
- Transport
- Use/maintenance
- Disposal/recycle

**Total amount (kg-CO₂/ product)**

- 15.8kg

**Percentage of CO₂ emissions**

- 54% (8.41kg)
- 14% (2.22kg)
- 5% (0.77kg)
- 18% (2.84kg)
- 8% (1.26kg)
3. Clothing-related Products

CHIKUMA&CO.,LTD

**Company name:** CHIKUMA&CO., LTD  
**Product name:** Apron for specific companies  
**PCR Name & ID:** Uniform  
**Product Outline (Verified in FY2011):**
- Polyester 100% (of which 70% is recycled polyester)  
- Product weight: 0.383kg (apron weight: 0.221kg; wrapping and packaging material: 0.162kg)  
- Collected after usage and material was recycled (turned into material for interior finishing material in automobiles)

**Effectiveness of recycling:**
- This product uses 70% recycled polyester as a raw material. In doing so, compared to manufacturing all of the polyester from petroleum resources, CO2 emissions are reduced by 0.710kg.
- Collection of this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared to the CRP value shown above, CO2 emissions can be reduced by 0.445kg emitted from disposal by incineration. If all of these products are recycled as material for other products, compared to making that material anew, a saving of 1.23kg of CO2 emissions can be accomplished. (If the size assessed is L size.)

**Process:**
- Acquisition of raw materials: 36%  
- Production: 26%  
- Transport: 2%  
- Use/maintenance: 25%  
- Disposal/recycle: 1%  
- Total amount (kgCO2 product): 8.76kg

ASICS Corporation

**Company name:** ASICS Corporation  
**Product name:** school uniform*training pants AN-451  
**PCR Name & ID:** Uniform  
**Product Outline (Verified in FY2011):**
- Weight of one pair of sweatpants: 411g (L size)

**Process:**
- Acquisition of raw materials: 54%  
- Production: 16%  
- Transport: 4%  
- Use/maintenance: 17%  
- Disposal/recycle: 9%  
- Total amount (kgCO2 product): 10.7kg

ONWARD Trading Co., Ltd.

**Company name:** ONWARD Trading Co., Ltd.  
**Product name:** school uniform*training shirts AN-351  
**PCR Name & ID:** Uniform  
**Product Outline (Verified in FY2012):**
- Weight of one sweatshirt: 541g (L size)

**Process:**
- Acquisition of raw materials: 54%  
- Production: 12%  
- Transport: 5%  
- Use/maintenance: 19%  
- Disposal/recycle: 10%  
- Total amount (kgCO2 product): 12.6kg

**Effectiveness of recycling:**
- These sweatshirts are worn during school PE classes and have the Eco Mark certification.
- These sweatshirts are collected after usage and recycled.

**Process:**
- Acquisition of raw materials: 74%  
- Production: 3%  
- Transport: 5%  
- Use/maintenance: 12%  
- Disposal/recycle: 6%  
- Total amount (kgCO2 product): 18.6kg

**Effectiveness of recycling:**
- This product contains a high percentage of polyester so that it can be worn without having to be ironed after washing.
- It was found that the acquisition of raw materials process accounts for 70% of the overall amount of CO2 emissions.

- Additional note:
  - Supposed number of times washed 100 times
  - Method of washing: washed at home (not ironed)

This product uses 70% recycled polyester as a raw material. In doing so, compared to manufacturing all of the polyester from petroleum resources, CO2 emissions are reduced by 0.710kg.

Collecting this product is carried out after usage and it is recycled as a padding material for interior finishing material in automobiles. Because of this, compared to the CRP value shown above, CO2 emissions can be reduced by 0.445kg emitted from disposal by incineration. If all of these products are recycled as material for other products, compared to making that material anew, a saving of 1.23kg of CO2 emissions can be accomplished. (If the size assessed is L size.)
3. Clothing-related Products

**Company name**: Onward Trading Co., Ltd.

**Product name**: Uniform (White uniform for nurses – long pants)

**PCR Name & ID**: PA-A0-03

**Product Outline (Verified in FY2010)**
- **Process ① Acquisition of raw materials**: 73% CO₂ emissions
- **Process ② Production**: 3% CO₂ emissions
- **Process ③ Transport**: 5% CO₂ emissions
- **Process ④ Use/maintenance**: 12% CO₂ emissions
- **Process ⑤ Disposal/recycle**: 6% CO₂ emissions

**Total amount (kg-CO₂/pair)**: 13.0kg

- **Method of washing**: washed at home (3 times)
- **Supposed number of times washed**: 100 times

- **This product contains a high percentage of polyester so that it can be worn without having to be ironed after washing.**
- **It was found that the acquisition of raw materials process accounts for 70% of the overall amount of CO₂ emissions.**

**Company name**: Onward Trading Co., Ltd.

**Product name**: Uniform (White uniform for nurses – jacket)

**PCR Name & ID**: PA-A0-03

**Product Outline (Verified in FY2011)**
- **Process ① Acquisition of raw materials**: 71% CO₂ emissions
- **Process ② Production**: 3% CO₂ emissions
- **Process ③ Transport**: 6% CO₂ emissions
- **Process ④ Use/maintenance**: 14% CO₂ emissions
- **Process ⑤ Disposal/recycle**: 6% CO₂ emissions

**Total amount (kg-CO₂/pair)**: 12.6kg

- **Method of washing**: washed at home (3 times)
- **Supposed number of times washed**: 100 times

- **This product contains a high percentage of polyester so that it can be worn without having to be ironed after washing.**
- **It was found that the acquisition of raw materials process accounts for 70% of the overall amount of CO₂ emissions.**

**Company name**: Salery Co., Ltd.

**Product name**: Ladies’ office wear Jacket S-24190

**PCR Name & ID**: PA-A0-03

**Product Outline (Verified in FY2011)**
- **Process ① Acquisition of raw materials**: 67% CO₂ emissions
- **Process ② Production**: 18% CO₂ emissions
- **Process ③ Transport**: 2% CO₂ emissions
- **Process ④ Use/maintenance**: 6% CO₂ emissions
- **Process ⑤ Disposal/recycle**: 7% CO₂ emissions

**Total amount (kg-CO₂/pair)**: 17.2kg

- **Polyester 100%, Single-style with one button**
- **Product able to be home-washed**
- **Product weight: 538g (Size assessed: Size 9)**
- **All-season product (To be worn all-year-round)**

- **Method of washing**: washed at home and ironed
- **Number of times washed**: 20 times

**Our company has obtained the ISO14001 certification. In addition, we have acquired the Wide Area Waste Management Certification and have set up a photovoltaic power-generation system on our main office building. From last year we have been retailing products which offset the CO₂ emitted during the production process and promoting eco-friendly activities to contribute to society. We believe that disclosing the amount of CO₂ emissions in each stage of a product’s life cycle, leads to reducing the CO₂ of the product in total.**
3. Clothing-related Products

**SELERY**

- **Company name**: Selery Co., Ltd.
- **Product name**: Ladies’ office wear Vest S-03250
- **PCR Name & ID**: PA-AO-03
- **Product Outline** (Verified in FY2011)
  - Polyester 100%, Single-style with four buttons
  - Product able to be home-washed
  - Product weight: 237g (Size assessed: Size 9)
  - All-season product (To be worn all year-round)

- **Process**
  - Acquisition of raw materials: 52%
  - Production: 33%
  - Transport: 2%
  - Use/maintenance: 6%
  - Disposal/recycle: 7%
  - Total amount of CO₂ per product: 10.4kg

**AEON**

- **Company name**: AEON Co., Ltd.
- **Product name**: TOPVALU Super Clean
- **PCR Name & ID**: PA-AC-01
- **Product Outline** (Verified in FY2003)
  - Product name: synthetic detergent (laundry detergent)
  - Application: cotton, linen, synthetic fabric
  - pH: alkaline
  - Net weight: 1.0kg

- **Process**
  - Acquisition of raw materials: 45%
  - Production: 4%
  - Transport: 6%
  - Use/maintenance: 27%
  - Disposal/recycle: 18%
  - Total amount of CO₂ per product: 7.27kg

**Japanese Consumers’ Co-operative Union**

- **Company name**: Japanese Consumers’ Co-operative Union
- **Product name**: Co-op Sefter with whitener, simple package, 1.0kg (in a bag)
- **PCR Name & ID**: PA-AC-02
- **Product Outline** (Verified in FY2010)
  - Synthetic detergent (laundry detergent)
  - Net weight: 1000g
  - Normal usage amount: 50g for 60 L of water (spoon not included)

- **Process**
  - Acquisition of raw materials: 45%
  - Production: 4%
  - Transport: 6%
  - Use/maintenance: 27%
  - Disposal/recycle: 18%
  - Total amount of CO₂ per product: 7.27kg

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**Notes**

- From the business operator’s side, the amount of CO₂ emissions from the raw materials is large. From the consumer’s side, the amount of CO₂ emissions from the water used and its disposal is large.
- If consumers are ingenious about the way they do their washing, it is possible to reduce the amount of CO₂ emissions.

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**CO₂ Reduction Measures**

- Recycled paper is used in the product’s package.
- When the product is being transported from overseas, it is delivered efficiently so as not to bring about any extra work.
3. Clothing-related Products

4. Printing-related Products

<table>
<thead>
<tr>
<th>PCR Name</th>
<th>PCR ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publicity printings &amp; Printing products for business use</td>
<td>PA-BS</td>
</tr>
<tr>
<td>Publishing &amp; Commercial printing (work in progress)</td>
<td>PA-AD</td>
</tr>
<tr>
<td>PS plate for Lithographic printing</td>
<td>PA-AF</td>
</tr>
</tbody>
</table>

N.B. The PCR codes shown do not include the edition numbers.

Note:

- One of the products which were given verification of their carbon footprints of products (CTP), three representative from each category (just) have been selected and introduced, focusing on products that were displayed in the 2011 Eco-Products Exhibition. Reporting on these products, please refer to the list of products attached to use the CTP. Also, included:
- The calculation coverage for carbon footprint has partly changed in FY2010 from that of FY2009. The Sales Process in the Transport/No Sales in FY2009 was eliminated in FY2010 due to various reasons during the pilot testing period.
- With regard to the lower section “Percentage of CO2 emissions” for each product, an entry of “50%” in that section for a final product indicates that no CO2 is verified during the said process of that product. An entry of “–” for intermediate goods indicates that the said process is not included in the calculation coverage.