Product Environmental Aspects Declaration



EP and IJ printer (PCR-ID:AD-04)

No. AD-14-E421 Date of publication Sep./12/2014



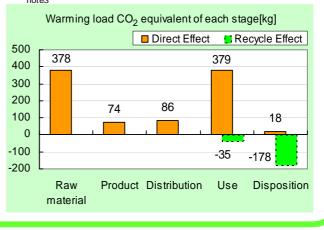
SAVIN MP C3003SP

 Printing process : Electrophotographic (EP) Printing
 Color : Monochrome and Full-color
 Print Speed : 30 ppm B&W and FC (LTR)
 Maximum Paper Size : 12" x 18"
 Included Units in Assessment : Automatic Reversing Document Feeder, Automatic Duplex Unit

The warming load of the Use stage is based on the supposition that the product prints 540,000 images for five years.

Consumption and discharge in a	All the stage sum
life cycle	totals
Global Warming (CO ₂	935
equivalent) / kg	(722)
Acidification (SO ₂	1.52
equivalent) / kg	(1.27)
Energy resources (crude oil	18.2
equivalent) / GJ	(13.5)

%Figures in () indicated environmental impact including recycle effect *note3



Notes:

- 1. Original LCA data is available on PEIDS: Product Environmental Information Declaration Sheet, and Product Data Sheet.
- 2. Unified rules and requirements for EcoLeaf LCA, for intended product category, are available as a PCR: Product Category Rule. Visit EcoLeaf website under JEMAI homepage at http://www.ecoleaf-jemai.jp/eng/ for details.
- 3. Recycle Effect illustrates an indirect influence to other products/services.
- 4. Basic Units used for calculations are based on Japan domestic data at this time, due to a lack of base data to establish localized Basic Unit for overseas locations adequately.
- 5. This declaration was produced using Product Category Rule intended for a product model sold in the Japanese market and using the qualitative and quantitative data collected in Japan.

[Supplemental environmental information]

• Certified regulations: International Energy Star Program, EU RoHS.

• This product and its main components such as photoreceptor, toner, carrier are produced in our factories certified to ISO14001 management system standard.

PCR review was conducted by: PCR Deliberation Committee, January 01, 2008, Name of reprentative: Youji Uchiyama, University of Tsukuba, Graduate School

Independent verification of the declaration and data, according to ISO14025 □internal ■external Third party verifier: Hiroo Sakazaki *

Programme operator: Japan Environmental Management Association for Industry, ecoleaf@jemai.or.jp

* In the case of an business entity certified as an Ecoleaf data collection system, the names of certification auditors are written.

The EcoLeaf is an environmental labeling program that belongs to the ISO-Type III category.



Environment Contact: RICOH Company, Ltd. Corporate Communication Center email : envinfo@ricoh.co.jp



The photo shows the product with an optional Paper Feed Unit (\bigotimes) attached. The environmental load of the optional unit is not included in the results.

Product Environmental Information Data Sheet (PEIDS)

Decement control no. FO2E-03 NCOM Economic 1 Use Residual Distance NCOM Economic 1 FO2E-03 NCOM Economic 1 Use Residual Distance NCOM Econom		Document control n				-02B-03		Unit	Eurotion DB version	vO 1	1	
Exclusion AD-14-E421 Solution Solutis Solution Solution										v2.1		製品環境情報 http://www.iemai.or.ip
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Image: second								-				
Solution Global Warming (CO2 equivalent) kg 3.78E+02 7.37E+01 8.63E+01 3.79E+02 1.80E+01 -2.13E+02 Acidification (SO2 kg 5.91E-01 8.56E-02 2.53E-01 5.61E-01 3.13E-02 -2.49E-01	_					kg	6.21E-04	4.22E-04	3.71E-05	1.18E-03	5.08E-06	3.13E-05
Solution Solution Global Warming (CO2 equivalent) kg 3.78E+02 7.37E+01 8.63E+01 3.79E+02 1.80E+01 -2.13E+02 Acidification (SO2 kg 5.91E-01 8.56E-02 2.53E-01 5.61E-01 3.13E-02 -2.49E-01	ent	source			equivalent)	kg	1.20E+02	2.75E+01	2.62E+01	1.38E+02	6.09E-01	-5.11E+01
Solution Global Warming (CO2 equivalent) kg 3.78E+02 7.37E+01 8.63E+01 3.79E+02 1.80E+01 -2.13E+02 Acidification (SO2 kg 5.91E-01 8.56E-02 2.53E-01 5.61E-01 3.13E-02 -2.49E-01	essm	by Ret Consu	resour	ces		kg	8.82E+02	0	0	1.14E+02	0	-4.96E+02
	act ass	nt to ≷			Global Warming (CO ₂	kg	3.78E+02	7.37E+01	8.63E+01	3.79E+02	1.80E+01	-2.13E+02
	Impe	by Emis Dischar the environi	to Atr	nosphere	Acidification (SO ₂	kg	5.91E-01	8.56E-02	2.53E-01	5.61E-01	3.13E-02	-2.49E-01

[Notes for readers: EcoLeaf common rules]

 A. Stage related
 A. "Production" stage is intended for two sub-stages listed below.
 (1) "Raw material" production: consists of mining, transportation and raw material production.
 (2) "Product" production: consists of the parts processing, assembly and installation.
 B. "Distribution" stage is intended for transportation of produced product. Transportation of consuma ables and maintenance goods (e.g. replacement parts) for use of the product are included into "Use" stage.

C. "Use" stage is intended for use of the product (active mode, standby mode, etc.) and production, transportation to disposal/recycle of consumables/maintenance goods (e.g. replacement parts).

D. *Disposition/Recycle* stage is intended for environmental impacts by product disposition/recycle, and deduction by recycling (e.g. impact reduction of raw material production).

E "Recycle Effect" illustrates an indirect environmental influences to other products/services by use of recialmed materials/parts, and/or by supply of used products to other businesses for material recialm/parts reuse.

Case 1: Use of reclaimed materials/parts: Sum of increase of environmental impact by collection activities of used materials/parts, and decrease by volume reduction of used materials/parts. Case 2: Supply of used products to other businesses for material reclaim/parts reuse: Sum of increase of environmental impact by materials/parts reclaiming process, and decrease by volume reduction of new materials/parts production.

II. Inventory analyses A. Data of mineral ore on "Exhaustible resources" are presented in weight of pure ingredients (e.g. iron, aluminum) in the ore. B. Data on energy resources are presented based on origin in calorific value. e.g. Data on uranium ore presents weight of uranium concentrate, which is available for use as an atomic fuel. C. Data of discharge to water system are in actual figure (not calculated using unit function in inventory analyses).

III Impact analyses Result of the "Impact analyses" is found in converting results of inventory analyses into total amount of a reference material (e.g. CO₂ in case of "Global Warming"). A. Impact "by resource consumption" represents magnitude of impacts to resource depletion. B. Impact "by emission/discharge to environment" represents magnitude of Impacts to Atmosphere, Water and Soil system.

IV Data entry format A. Exponential notation, after the decimal point to two, should be used. B. Indicate "O" instead exponential notation, if the result of calculation or estimation is considered as "zero" or negligible in comparison to related results. C. Indicate "O" in stead exponential notation, if the result of calculation or order to differentiate to indicate "zero". (BGD for material production are for production from mineral ore. Those data do not include reclaiming processes like recovery from scrap.)

[Notes for readers: Target product spe

This declaration was produced using Product Category Rule intended for a product model sold in the Japanese market and using the qualitative and quantitative data collected in Japan.

Product data sheet

(Input data and parameters for LCA)



Document control no.	F-03-03
Product vendor	RICOH COMPANY, LTD.
EcoLEaf registration no.	AD-14-E421

		PCR name	EP and IJ priv	nter(PCR-ID:AD-04)	Product	уре	SAVI	N MP C3003SP				
	LCA/	LCIA in units of:	1	product	Product weig	jht (kg) 93	Package (kg)	15 Weight total (kg) 108			
1.	. Product information (per unit): parts etc. by material and by process/assembly method											
			Breakdown of	primary materials		Math breakdown of parts	s, which need to app	ly Processing / Assembly Base	Units (Parts B, C)			
		Material na	ame Weight (kg) Material name	Weight (kg)	Process name	Weight (k	g) Process name	Weight (kg)			
		SUS	3.44E+00	РСВ	1.34E+00	Press molding: Iron (kg) 4.44E+01		Parts assembly (kg)	9.43E+01			
		Alminun	n 9.30E-01	Steel	4.21E+01	Press molding: Nonferrous metal	4 50E+00)				
	nct	Glass	2.26E+00	Wood	1.13E-01	Injection molding	(kg) 4.17E+01					
	roduct	Rubber	3.70E-01			Glass molding (k	(g) 2.62E+00)				
	Ā	Other met	tals 3.57E+00									
		Paper	1.06E+01									
		Thermopla	stic 3.96E+01									
		Thermoset	tting 3.69E+00									
		Subtota	al 6.44E+01	Subtotal	4.36E+01							
			Total		1.08E+02	Subtotal	9.33E+01	Subtotal	9.43E+01			

Note

2. Production site information (per unit): Consumption and discharge/emission for production/processing/assembly within the site.

ų	Classification	Energy	Material	Energy	Material	Energy		
Consumption	Distribution	Electricity (kWh)	Clean water (kg)	Furnace LNG (kg)	Industrial water (kg)	Furnace urban gas (13A) (m ³)		
suo	Quantity	3.75E+01	1.18E+02	3.14E-01	4.96E+02	9.64E-01		
S	Note							
	Classification	Water system						
Emission/ Discharge	Distribution	Sewage processing (kg)						
Emis Disc	Quantity	6.14E+02						
	Note							

Note

3. Distribution stage information (per unit): means, distance, loading ratio, consumptions and emissions/discharges.

	Means of transportation	Diesel truck: 20 ton (kg·km)	Freight by ship (kg∙km)	Freight by ship (kg∙km)	Freight by ship (kg · km)	Freight by ship (kg∙km)			
	Conditions	Mass(kg)	Distance (km)	Loading Ratio(%w)	Load(kg·km)	Mass(kg)	Distance (km)	Loading Ratio(%w)	Load(kg·km)
u	Quantity	1.08E+02	2.53E+01	4.51E+01	6.05E+03	1.08E+02	1.20E+04	1.00E+02	1.29E+06
outi	Note								
Distribution	Means of	Freight by rail	Freight by rail	Freight by rail	Freight by rail	Diesel truck:	Diesel truck:	Diesel truck:	Diesel truck:
	transportation	(kg·km)	(kg∙km)	(kg·km)	(kg∙km)	20 ton (kg·km)	20 ton (kg·km)	20 ton (kg·km)	20 ton (kg·km)
	Conditions	(kg∙km) Mass(kg)	(kg·km) Distance (km)	(kg∙km) Loading Ratio(%w)	(kg∙km) Load(kg∙km)	20 ton (kg∙km) Mass(kg)	20 ton (kg·km) Distance (km)	20 ton (kg⋅km) Loading Ratio(%w)	20 ton (kg·km) Load(kg·km)
				Loading			,	Loading	

Note

4. Use stage (per unit): use condition (mode, term) including active mode, standby mode and maintenance.

4.1 Product and accessories subject to this analysis

	Classification	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption
	Distribution	Stainless steel plate (kg)	Aluminum plate (kg)	Glass (kg)	Styrene- butadiene rubber (SBR) (kg)	Copper plate (kg)	Tin (kg)	Corrugated cardboard (kg)	ABS (kg)
	Quantity	7.21E-01	1.38E-01	2.21E-02	1.66E-02	3.71E-02	8.94E-05	1.08E+01	4.62E-02
	Note								
	Classification	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption
	Distribution	PA66 (Polyamide 66) (kg)	PBT (kg)	Polycarbonate (kg)	Polycarbonate- ABS (70/30) (kg)	Low density polyethylene (kg)	PET (kg)	POM (polyacetal) (kg)	Polypropylene (kg)
	Quantity	7.78E-03	4.95E-03	6.58E-02	1.23E+00	2.39E-03	2.46E+01	5.67E-02	3.57E-02
	Note								
	Classification	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption
	Distribution	Polystyrene (kg)	PVC (kg)	Epoxy resin (EP) (kg)	Expandable hard polyurethane (Hard) (kg)	Expandable soft polyurethane (for automobile) (kg)	Unsaturated polyester (UP) (kg)	Assembled circuit board (kg)	Electroplated steel Plate (kg)
t	Quantity	1.08E+01	8.13E-04	2.03E-02	6.21E-04	1.28E-01	2.96E-02	1.64E-04	1.36E+00
oduct	Note								

Pr	Classification	Consumption	Condition	Consumption	Consumption	Consumption	Consumption	Condition	Consumption
	Distribution	Cold-Rolled steel plate (kg)	Diesel truck: 10 ton (kg∙km)	Press molding: Iron (kg)	Press molding: Nonferrous metal (kg)	Injection molding (kg)	Glass molding (kg)	Freight by ship (kg · km)	Parts assembly (kg)
	Quantity	1.99E+00	6.52E+03	4.06E+00	1.75E-01	1.31E+01	3.87E-02	3.12E+05	1.74E+01
	Note								
	Classification	Energy	Energy	Energy	Consumption	Consumption	Condition	Condition	Condition
	Distribution	Electricity (kWh)	Furnace LNG (kg)	Furnace urban gas (13A) (m ³)	Electricity (kWh)	Gasoline (kg)	Freight by rail (kg · km)	Diesel truck: 20 ton (kg·km)	Diesel truck: 20 ton (kg·km)
	Quantity	9.99E+01	4.79E+00	4.58E+00	2.79E+02	1.47E+00	1.72E+05	3.34E+04	7.10E+02
	Note								
	Classification	Condition	Condition	Condition					
	Distribution	Freight by ship (kg∙km)	Freight by rail (kg · km)	Diesel truck: 20 ton (kg·km)					
	Quantity	2.08E+05	8.68E+04	1.68E+04					
	Note								

Note

4.2 Disposition/Recycle information on consumables and replacement parts

	Classification	Process	Process	Process	Process	Process	Process	Process	Process
	Distribution	Diesel truck: 4 ton (kg∙km)	Landfill: Industrial waste (kg)	Incineration to landfill (as ash) (kg)	Shredding (kg)	Sorting: Iron (by magnetic force) (kg)	Sorting: Nonferrous metal (by eddy current with wind force) (kg)	Sorting: Plastics (by relative density difference in water) (kg)	Recycle: to Glass (kg)
	Quantity	1.04E+03	3.26E+00	1.08E+01	1.98E+01	1.98E+01	1.59E+01	1.57E+01	2.21E-02
	Note								
es	Classification	Process	Process	Process	Process	Deduction	Deduction	Deduction	Deduction
Consumables	Distribution	Recycle: to cold-rolled steel (kg)	Recycle: to Aluminum plate (kg)	Recycle: to copper plate (kg)	Recycle: to Thermoplastic pellet (kg)	Glass (kg)	Cold-Rolled steel plate (kg)	Aluminum plate (kg)	Copper plate (kg)
Ŭ	Quantity	3.90E+00	1.33E-01	3.57E-02	1.24E+01	1.99E-02	3.90E+00	1.33E-01	3.57E-02
	Note								
	Classification	Deduction	Process						
	Distribution	Polystyrene (kg)	Diesel truck: 10 ton (kg⋅km)						
	Quantity	1.24E+01	1.58E+04						
	Note								

Note

5. Disposition/Recycle stage information (per product): process method and scenarios

	Classification	Process	Process	Process	Process	Process	Deduction	Process	Process
	Distribution	Landfill: Industrial waste (kg)	Shredding (kg)	Incineration: Industrial waste (kg)	Incineration to landfill (as ash) (kg)	Diesel truck: 10 ton (kg·km)	High density polyethylene (kg)	Sorting: Iron (by magnetic force) (kg)	Sorting: Nonferrous metal (by eddy current with wind force) (kg)
	Quantity	5.83E+00	9.64E+01	2.19E+00	1.02E+01	8.53E+04	1.01E+00	9.10E+01	4.84E+01
	Note								
	Classification	Process	Process	Process	Process	Process	Process	Deduction	Deduction
Scenario	Distribution	Sorting: Plastics (by relative density difference in water) (kg)	Recycle: to Glass (kg)	Recycle: to cold-rolled steel (kg)	Recycle: to Aluminum plate (kg)	Recycle: to copper plate (kg)	Recycle: to Thermoplastic pellet (kg)	Glass (kg)	Cold-Rolled steel plate (kg)
	Quantity	4.43E+01	2.26E+00	4.25E+01	8.68E-01	4.56E+00	3.82E+01	2.21E+00	4.25E+01
	Note								
	Classification	Deduction	Deduction	Deduction					
	Distribution	Aluminum plate (kg)	Copper plate (kg)	Polystyrene (kg)					
	Quantity	8.68E-01	4.56E+00	3.72E+01					
	Note								
Note									

6. Others

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