

- International Energy Star Program
- Conforming to Japanese Law on Promoting Green Purchasing

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: The third party verifier \* : Shozo Nakamuta

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.

## Form 2 (F-02B-03) Product Environmental Information Data Sheet (PEIDS)



EcoLeaf registration no.     AD-13-290     No.     No.       PCR name     EP and IJ printer     Product type     bizhub C754e       PCR-ID     AD-04     Product weight[kg]     221.0     Package[kg]     38.6     Weight total[kg]     259.6       Life Cycle Stage     Unit     Production     Distribution     Use     Disposal     Recycle	Document control r				0.		02B-03			nction DB version	v2.1		BAR S
PCR name         EP and LJ printer         Product supple Point wurple         Distribution         Distribution         Use (bit bit bit bit bit bit bit bit bit bit	Product vendor EcoLeaf registration			no				Characterization	Factor DB version	v2.1			
PCR-ID         AD-0-4         Production         Package/up         38.6         Weight total/up         29.9           Notation         Life Cycle Starg         Mit         1.41E-04         3.41E+03         3.88E+02         4.57E+04         1.67E+02         -9.20E+03           Notation         Mod 1.41E+04         3.41E+03         3.88E+02         4.57E+04         4.67E+02         -9.20E+03           Notation         Mod 1.41E+04         3.41E+03         3.88E+02         4.57E+04         4.67E+01         -2.20E+03           Notation         Coal         Isa         1.57E+02         2.20E+01         3.38E+02         0.32E+02         2.48E+02         4.81E+01         -1.08E+02         2.20E+01         1.34E+02         0.32E+03											A second distance of	www.jemai.or.jp	
Under term         Under t					E		er						
North tens         Unit         Rew material         Product         Distribution         Use         Dispectal         Recycle           Earry Consumption         Mu         1.11E+04         3.11E+03         3.9E+03         1.09E+04         1.00E+01         -2.20E+03           Image: Consumption         Mu         1.01E+02         2.50E+01         3.02E+02         8.18E+00         3.20E+02         8.18E+00         3.20E+02         8.18E+00         4.22E+01           Image: Consumption         Mu         1.03E+02         2.50E+01         3.0E+02         4.52E+00         -4.49E+04           Image: Consumption         Mu         4.90E+01         0         1.94E+02         0         -4.49E+04           Image: Consumption         Mu         4.90E+01         0         0         1.05E+02         0         -4.91E+01           Image: Consumption         Mu         3.05E+02         0         0         1.05E+02         0         -4.91E+01           Image: Consumption         Mu         3.92E+00         0         0         1.05E+02         0         -7.05E+02           Image: Consumption         Mu         3.75E+00         0         0         0         0         -7.08E+01         0         0         0 <td></td> <td colspan="3">PCR-ID AD-04</td> <td></td> <td>Product weight[kg]</td> <td>221.0</td> <td>Package[kg]</td> <td>38.6</td> <td>Weight total[kg]</td> <td>259.6</td>		PCR-ID AD-04				Product weight[kg]	221.0	Package[kg]	38.6	Weight total[kg]	259.6		
Under Samp         Column (more)         Norm         Samp         Samp </td <td>In/O</td> <td colspan="3">Life Cycle Sta</td> <td>Life Cycle Stage</td> <td>Unit</td> <td></td> <td></td> <td>Distribution</td> <td>Use</td> <td>Disposal</td> <td>Recycle</td>	In/O	Life Cycle Sta			Life Cycle Stage	Unit			Distribution	Use	Disposal	Recycle	
Under the state of th						tion	MJ	1.41E+04	3.41E+03	3.98E+02	4.57E+04	1.67E+02	-9.20E+03
University         Description         Condition (as a fuel)         Sign 1         Description         Subset 2         Subse 2         Sub				Energy C	onsump	hion	Mcal	3.37E+03	8.16E+02	9.50E+01	1.09E+04	4.00E+01	-2.20E+03
United of the second					Coal		kg	1.67E+02	2.20E+01	9.30E-04			
Notice         Notice is an end of the image of the				Eneray		. ,	kg	1.08E+02			3.20E+02	1.86E+00	-6.22E+01
Under the set of the							kg						
University         Importants)         15         4.90E-01         0         0         1.94E-102         0         -4.94E-01           Importants)         15         4.90E-01         0         0         1.00E+02         0         -1.00E+02           Importants)         15         3.75E+00         0         0         1.00E+00         0         -7.31E+00           Backatore         14         3.22E+00         0         0         1.52E+00         0         -7.31E+00           Manganese ore         14         6.48E-01         0         0         7.50E-01         0         -1.59E-01           Manganese ore         14         6.48E-01         0         0         0         0         -4.72E-02           Manganese ore         14         6.49         0         0         0         0         0         -1.59E-01           Manganese ore         14         1.41E+00         0         0         0         0         0         -4.72E-02           Manganese ore         14         3.22E+01         0         0         0         0         -4.44E-01         0         0         0         -1.32E-01         -1.32E-01         -1.32E-01         -1.32E-01 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>mg</td><td>2.00E-03</td><td>1.49E-03</td><td>6.30E-08</td><td>8.52E-03</td><td>5.53E-05</td><td>-4.76E-04</td></t<>							mg	2.00E-03	1.49E-03	6.30E-08	8.52E-03	5.53E-05	-4.76E-04
Under the set of the							kg	4.90E+01	0	0	1.94E+02	0	-4 91E+01
Notes         Copper ore         Note         3.75E+00         0         0         1.06E+00         0         -1.7EE+00           Notes         N						•	kg	1.63E+02	0	0	1.01E+02	0	
Normal         Bauxite         kg         322E+00         0         0         1.50E+01         0         -7.31E+00           Weige grig         Marganese ore         ks         3.22E-01         0         0         0         1.50E+01         0         -7.31E+00         0         -7.31E+00         0         -7.31E+00         0         -7.32E+01         0         0         1.50E+01         0         -7.31E+00         0         -7.32E+00         0         -7.32E+01         0         0         0         -7.32E+01         0						Copper ore			0	0		0	
Noted org         Noted org <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td></td><td>-</td><td></td></t<>									-	-		-	
Understand         Zinc cree         kg         1 / 14 E+00         0         0         0         0         0		etion	e e	8		Nickel ore			-	-		-	
Understand         Zinc cree         kg         1 / 14 E+00         0         0         0         0         0		duns	austik		Cł	nromium ore	kg		0	0		0	
Understand         Zinc cree         kg         1 / 14 E+00         0         0         0         0         0		Cons	Exhé	100	Ma	inganese ore	kg	8.48E-01	0	0	7.50E-01	0	
Understand         Zinc cree         kg         1 / 14 E+00         0         0         0         0         0		urce			PI	umbous ore	kg	1.43E-01	0	0	0	0	-4.72E-02
Understand         Zinc cree         kg         1 / 14 E+00         0         0         0         0         0		Reso					kg	-	-	0	-	-	0
Nome         New one         New         Ne						Zinc ore	kg	1.41E+00	-	-	-	÷	-4.64E-01
Normal         Normal         Natural social ash ash ash between         Natural social ash ash ash between         Natural social ash ash ash between         Natural social ash ash ash between         Natural social ash between         Natural social ash ash ash ash ash ash between         Natural social ash between between         Natural social ash between betw							kg		-	-	-	-	
Normal         Rock salt         ks         3.21E+01         4.30E-03         0         2.05E+01         8.93E-02         -2.04E+01           Natural soda ash Natural soda ash Natural         ks         3.32E+01         0         0         0.98E+01         7.40E-01         -1.68E+01           Natural         Sola         5.23E+01         0         0         0.00E+00         0         -1.32E-01         0         -1.32E-01         1.32E+02         -2.35E+04           Wood         ks         5.23E+01         0         0         1.04E+02         0         -8.25E+01           Wood         ks         5.23E+01         0         0         1.04E+02         0         -8.25E+01           Nox         ks         8.46Te+02         1.71E+04         7.02E-01         1.32E+00         -2.42E+03         7.83E+01         -5.13E+02           Nox         ks         5.94E-02         1.58E+03         3.04E-01         3.41E+001         1.12E-01         -6.92E+01         -6.92E+01         3.04E+01         1.08E+01         -1.12E-01         -6.92E+01         -6.92E+01         -2.24E+03         -2.24E+03         -6.92E+01         -2.24E+03         -2.24E+03         -2.24E+03         -2.24E+03         -2.24E+03         -2.24E+03							kg	-	-	-	-	-	
Universe         Limestone         ks.         3.22E+01         0         0         1.98E+01         7.40E-01         -1.69E+01           Rerewable resources         Wood         ks.         3.32E+01         0         0         0.00E+00         0         -1.32E+01           Water         ks.         3.33E+01         0         0         0.00E+01         1.32E+05         6.64E+02         -2.35E+04           Water         ks.         4.67E+04         1.77E+04         7.02E+01         2.24E+03         7.83E+01         -5.13E+02           Nox         ks.         8.45E+02         1.75E+02         2.82E+01         3.44E+00         1.12E-01         -6.92E+01           Nox         ks.         8.75E-01         1.31E-01         1.31E+01         3.41E+00         -1.14E-01           Nox         ks.         5.94E+02         5.83E+03         4.07E+03         3.44E+01         1.88E-04         -2.26E-02         -1.14E-01           Nox         ks.         3.03E+02         5.03E+03         3.03E+07         2.25E+02         1.48E-04         -4.60E+02           Nox         ks.         3.07E+02         1.08E+01         1.31E+01         3.32E+04         -2.27E+02           Usamapate         Re										-		-	
Verture         CO2         ks         8.45E+02         1.75E+02         2.82E+01         2.24E+03         7.83E+01         -5.13E+02           SOX         ks         5.16E-01         1.31E-01         1.71E+02         1.75E+00         4.28E-02         -4.61E-01           NOX         ks         5.16E-01         1.31E-01         1.31E-01         3.41E+00         1.26E-01         -6.13E+02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         7.83E+01         2.68E-02         5.17E-01         2.62E-01         1.68E-04         -1.14E-03           NOX         ks         3.07E-02         1.04E-03         3.03E-07         4.41E-02         2.90E-04         -2.22E-02         -0.08E-01           NMVOC         ks         3.07E-02         1.04E-03         4.00E-03         1.03E-01         8.32E-04         -2.22E-02         -0.0E-01           OV         Watt         ks         3.07E-02         1.04E-03         1.02E-01         0         0         0 </td <td>ş</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td>	ş									-			
Verture         CO2         ks         8.45E+02         1.75E+02         2.82E+01         2.24E+03         7.83E+01         -5.13E+02           SOX         ks         5.16E-01         1.31E-01         1.71E+02         1.75E+00         4.28E-02         -4.61E-01           NOX         ks         5.16E-01         1.31E-01         1.31E-01         3.41E+00         1.26E-01         -6.13E+02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         7.83E+01         2.68E-02         5.17E-01         2.62E-01         1.68E-04         -1.14E-03           NOX         ks         3.07E-02         1.04E-03         3.03E-07         4.41E-02         2.90E-04         -2.22E-02         -0.08E-01           NMVOC         ks         3.07E-02         1.04E-03         4.00E-03         1.03E-01         8.32E-04         -2.22E-02         -0.0E-01           OV         Watt         ks         3.07E-02         1.04E-03         1.02E-01         0         0         0 </td <td>alyse</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td>	alyse									•			
Verture         CO2         ks         8.45E+02         1.75E+02         2.82E+01         2.24E+03         7.83E+01         -5.13E+02           SOX         ks         5.16E-01         1.31E-01         1.71E+02         1.75E+00         4.28E-02         -4.61E-01           NOX         ks         5.16E-01         1.31E-01         1.31E-01         3.41E+00         1.26E-01         -6.13E+02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         7.83E+01         2.68E-02         5.17E-01         2.62E-01         1.68E-04         -1.14E-03           NOX         ks         3.07E-02         1.04E-03         3.03E-07         4.41E-02         2.90E-04         -2.22E-02         -0.08E-01           NMVOC         ks         3.07E-02         1.04E-03         4.00E-03         1.03E-01         8.32E-04         -2.22E-02         -0.0E-01           OV         Watt         ks         3.07E-02         1.04E-03         1.02E-01         0         0         0 </td <td>y ani</td> <td></td> <td colspan="2" rowspan="2"></td> <td>Nat</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td></td>	y ani				Nat					-		-	
Verture         CO2         ks         8.45E+02         1.75E+02         2.82E+01         2.24E+03         7.83E+01         -5.13E+02           SOX         ks         5.16E-01         1.31E-01         1.71E+02         1.75E+00         4.28E-02         -4.61E-01           NOX         ks         5.16E-01         1.31E-01         1.31E-01         3.41E+00         1.26E-01         -6.13E+02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           NOX         ks         5.94E-02         7.83E+01         2.68E-02         5.17E-01         2.62E-01         1.68E-04         -1.14E-03           NOX         ks         3.07E-02         1.04E-03         3.03E-07         4.41E-02         2.90E-04         -2.22E-02         -0.08E-01           NMVOC         ks         3.07E-02         1.04E-03         4.00E-03         1.03E-01         8.32E-04         -2.22E-02         -0.0E-01           OV         Watt         ks         3.07E-02         1.04E-03         1.02E-01         0         0         0 </td <td>entor</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td> <td>-</td> <td></td>	entor						-		-			-	
Name         Sox         kg         5.16E-01         1.31E-01         1.71E-02         1.75E+00         4.28E-02         -4.61E-01           Nox         kg         8.75E-01         1.14E-01         1.31E-01         3.41E+00         1.12E-01         -6.92E-01           No         kg         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.68E-04         -4.60E-02           No         kg         5.94E-02         7.83E-03         1.68E-07         2.25E-02         1.48E-04         -1.14E-03           CO         kg         1.26E-01         2.59E-02         3.39E-03         1.03E-01         8.22E-02         -1.08E-01           NMVOC         kg         1.26E-01         2.59E-02         3.39E-02         5.17E-01         8.26E-04         -2.27E-02           dust         kg         -	Inve												
Nox         ke         8.75E-01         1.14E-01         1.31E-01         3.41E+00         1.12E-01         -6.92E-01           Nox         ke         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.69E-04         -4.60E-02           CH         ke         5.30E-03         3.98E-03         1.68E-07         2.25E-02         1.48E-04         -1.14E-03           CO         ke         1.26E-01         2.58E-03         3.39E-03         1.68E-07         2.25E-02         1.08E-04         -2.24E-03           NWVOC         ke         1.04E-02         7.81E-03         3.30E-07         4.41E-02         2.90E-04         -2.24E-03           CXHY         ke         3.07E-02         1.04E-03         4.00E-03         1.03E-01         8.32E-04         -2.27E-02           MWVOC         ke         1.12E-01         5.61E-03         1.27E-02         2.80E-01         6.85E-03         -9.00E-02           Wetersystem         N total         ke         -<													
N20         kg         5.94E-02         5.83E-03         4.77E-03         3.44E-01         1.69E-04         -4.60E-02           O Amosphere         N20         kg         5.94E-02         5.83E-03         1.68E-07         2.25E-02         1.48E-04         -1.14E-03           O Amosphere         Kg         1.26E-01         2.59E-02         3.39E-07         4.41E-02         2.30E-04         -2.24E-03           NWVOC         kg         1.04E-02         7.81E-03         3.00E-07         4.41E-02         2.80E-04         -2.24E-03           O Amosphere         BOD         kg         1.12E-01         5.61E-03         1.27E-02         2.80E-01         6.85E-03         -9.00E-02           O Autor system         BOD         kg         - <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>													
Verter System         CH4         kg         Documents         Construction         Construction <thconst< td=""><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thconst<>						-							
Number         CO         Ref         1.02E-01         2.59E-02         3.39E-02         5.17E-01         2.62E-02         -1.08E-01           NMVOC         kg         1.04E-02         7.81E-03         3.30E-07         4.41E-02         2.90E-04         -2.24E-03           CXHy         kg         0.12E-01         5.61F-02         1.03E-01         8.32E-04         -2.27E-02           Usst         kg         1.12E-01         5.61E-03         1.27E-02         2.80E-01         6.83E-03         -9.00E-02           Usst         kg         1.12E-01         5.61E-03         1.27E-02         2.80E-01         6.83E-03         -9.00E-02           Usst         kg         -						-							
Legg of the second se						CO							
Under system         CxHy         kg         3.07E-02         1.04E-03         4.00E-03         1.03E-01         8.32E-04         -2.27E-02           dust         kg         1.12E-01         5.61E-03         1.27E-02         2.80E-01         6.85E-03         -9.00E-02           Water system         BOD         kg         -         -         -         -         -         -           Water system         N total         kg         - <td>l</td> <td></td> <td></td> <td>NMVOC</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	l					NMVOC							
U         U         U         Water system (N         N total         kg         -		rge				CxHy	kg						
U         U         U         Water system (N         N total         kg         -		scha				dust	kg						
U         U         U         Water system (N         N total         kg         -		anvird				BOD	kg	-	_	_	-	-	-
U         U         U         Water system (N         N total         kg         -		nissic the c				COD	kg	_	-	_	_	_	_
Vertice         SS         kg         -		는 5		ater system		N total	kg	-	-	-	-	-	-
Verture         Unspecified solid waste         kg         4.61E+00         3.00E-02         0         9.28E+01         1.11E+02         -4.79E+00           Is Soli system         Slag         kg         5.09E+01         0         0         2.99E+01         0         -3.08E+01           Is Soli system         Sludge         kg         5.15E+00         0         0         3.12E+01         0         -1.46E+01           Low emission radioactive waste         kg         1.40E-03         1.04E-03         4.40E-08         5.94E-03         3.86E-05         -3.33E-04           Exhaustible resources         Energy resources (crude oil equivalent)         kg         2.58E+02         6.60E+01         8.85E+00         7.19E+02         3.35E+00         -1.51E+02           Mineral resources         kg         1.17E+03         0         0         1.59E+03         0         -1.03E+03           Mineral resources         kg         8.61E+02         1.76E+02         2.95E+01         2.33E+03         7.83E+01         -5.25E+02           Mineral resources         kg         1.13E+00         2.10E-01         1.09E-01         4.14E+00         1.21E-01         -9.46E-01           Mineral resources         vsystem         kg         1.13E+00												-	-
Verture         Slag         kg         5.09E+01         0         0         2.99E+01         0         -3.08E+01           V Soil system         Sludge         kg         5.15E+00         0         0         3.12E+01         0         -1.46E+01           Low emission radioactive waste         kg         1.40E-03         1.04E-03         4.40E-08         5.94E-03         3.86E-05         -3.33E-04           kstaustible resources (route oil equivalent)         kg         2.58E+02         6.60E+01         8.85E+00         7.19E+02         3.35E+00         -1.51E+02           Mineral resources (ron or equivalent)         kg         1.17E+03         0         0         1.59E+03         0         -1.03E+03           to signific to system         to system         to to Water system         kg         1.17E+03         0         0         1.59E+03         7.83E+01         -5.25E+02           to Water system         to system         to system         kg         8.61E+02         1.76E+02         2.95E+01         2.33E+03         7.83E+01         -5.25E+02           to Soil         to Water system         system         kg         1.13E+00         2.10E-01         1.09E-01         4.14E+00         1.21E-01         -9.46E-01							-						
Verture         Is Soli system         Sludge         kg         5.15E+00         0         0         3.12E+01         0         -1.46E+01           Low emission radioactive waste         kg         1.40E-03         1.04E-03         4.40E-08         5.94E-03         3.86E-05         -3.33E-04           to Soli system         Energy resources (crude oil equivalent)         kg         2.58E+02         6.60E+01         8.85E+00         7.19E+02         3.35E+00         -1.51E+02           to Soli system         Energy resources (ron or equivalent)         kg         1.17E+03         0         0         1.59E+03         0         -1.03E+03           to Soli system         to Atmosphere         to Atmosphere         kg         8.61E+02         1.76E+02         2.95E+01         2.33E+03         7.83E+01         -5.25E+02           to Water system         to Water to Soli         to         kg         1.13E+00         2.10E-01         1.09E-01         4.14E+00         1.21E-01         -9.46E-01					Unspec								
Image: base base base base base base base base			to Se	ail evetom		-							
Image: second			10 50	m system	<u> </u>	-	kg		U	U		U	-1.46E+01
Understand         Image: Constraint of the second sec					radi	oactive waste	kg	1.40E-03	1.04E-03	4.40E-08	5.94E-03	3.86E-05	-3.33E-04
Image: constraint of the system to Soil         Image: constraint of the sys		ource	Ext	naustible	(crude	e oil equivalent)	kg	2.58E+02	6.60E+01	8.85E+00	7.19E+02	3.35E+00	-1.51E+02
to Water system to Soil	lent	by Rest Consum			IVIINE		kg	1.17E+03	0	0	1.59E+03	0	-1.03E+03
to Water system to Soil	ssesn						kg	8.61E+02	1.76E+02	2.95E+01	2.33E+03	7.83E+01	-5.25E+02
to Water system to Soil	act a:	sion	Atn				kg	1.13E+00	2.10E-01	1.09E-01	4.14E+00	1.21E-01	-9.46E-01
to Water system to Soil	dm	imis											
to Soil		oy E ons.	to										
		- 0											

[Notes for readers: EcoLeaf common rules]

I. 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 consumables and maintenance goods (e.g. replacement parts)
- "Use" stage is intended for use of the product (active mode, standby mode, etc.) and production, transportation to disposal/recycle of consumables
- D. "Disposition/Recycle" stage is intended for environmental impacts by product disposition/recycle, and deduction by recycling E. "Recycle Effect" illustrates an indirect environmental influences to other products/services by use of reclaimed materials/parts, and/or by supply of
- Case 1: Use of reclaimed materials/parts: Sum of increase of environmental impact by collection activities of used materials/parts, and decrease Case 2: Supply of used products to other businesses for material reclaim/parts reuse: Sum of increase of environmental impact by materials/parts
- 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, 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 "0" instead exponential notation, if the result of calculation or estimation is considered as "zero" or negligible in comparison to related results. C. Indicate "-" if calculation nor estimation can not be done. in 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 specific]

- A."Raw material" in "Production" includes environmental impacts generated during mining transportation material production phases of the main body of the printer and the toner cartridge enclosed in the printer. The environmental impacts are calculated using the eco-leaf basic unit DB for calculations.
- B. " Product" in "production" includes environmental impacts of processing of the parts (injection, blow-, press- and glass-molding). The environmental impacts from the parts assembly plant which is different from the main body assembly plant (such parts are clacified in "parts C") are calculated using the eco-leaf basic unit DB for calculations.
- The impacts from the main body assembly plant are calculated using the quantitative data on environmental impacts in our assembly plant. C. Regarding the basis and the basic units for calculations during distribution stages
- The total distance of the transportation in Japan of 100km is used according to PCR (AD-04) and the transportation overseas includes the transportation by track in China and by ship between China and Japan.
- D. Regarding the basis and the basic units for calculations during use and consumption stage
- The power consumption is measured by the TEC test procedure according to PCR (AD-04). 3,375,000 sheets are printed in total during the use period of five years.
- The toner consumption is summed up over the five years from the toner consumption data per sheet using our print pattern with 5% coverage. The production loads and the collection & recycling impacts of the toner cartridges used over the five years are included in this stage
- E. The recycling impacts are calculated assuming that 40% of the end-of-life printers are recovered from users according to PCR (AD-04).
- The impacts are calculated with the remaining 60% following the disposal senario as general wastes.
- F. The impacts of material production of recycled materials are included in the values with minus as a recycling effect.

## Form3 (F-03-03)

# Product data sheet (Input data and parameters for LCA)

Document control no. F-03-03 KONICAMINOLTA, INC. Product vendor AD-13-290 EcoLeaf registration no.



EP and IJ printer (PCR-ID:AD-04)
1 Product weight[kg] bizhub\_C754e PCR name Product type \_CA/LCIA in units of: Package[kg] 38.6 Weight total[kg] 259.6 221.0 1. Product information (per unit): parts etc. by material and by process/assembly method

	Break	down of primary materials		Math breakdown of par	ts, which need to apply	/ Processing / Assembly	Base Units (Parts B,
Material name Weight (kg)		Material name	Weight (kg)	Process name	Weight (kg)	Process name	Weight (kg)
Ordinary steel	1.57E+02	Rubber	4.23E-01	Press molding:Iron	1.47E+02	Parts assembly	4.94E+00
Stainless steel	1.57E+00	Semiconductor circuit board	3.83E+00	Press molding:Nonferro	5.40E+00		
Aluminium	2.27E+00			Injection molding	5.19E+01		
Other metals	4.10E+00			Blow molding	1.54E-01		
Glass	3.55E+00			Glass molding	3.55E+00		
Thermoplastic resin	5.46E+01						
Wood	1.53E+01						
Paper	1.74E+01						
Subtotal	2.55E+02	Subtotal	4.25E+00				
	Tota	1	2.60E+02	Subtotal	2.08E+02	Subtotal	4.94E+00

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

SOX and NOX should be indicated in SO2, NO2 equivalent.										
nption	Classification	Energy	Energy	Energy	Material	Material				
	Distribution	Electricity (kWh)	Diesel oil as	Furnace urban	Industrial	Groundwater				
Ę	Distribution	Electricity (KWII)	fuel(kg)	gas (m <sup>3</sup> )	water(kg)	(kg)				
SUC	Quantity	1.62E+02	1.29E-03	1.47E+00	7.95E+02	2.25E+02				
õ	Note									
- 0	Classification	To Water system								
Emission/ Discharge		-								
issi cha	Distribution	Sewage (kg)								
Dis Dis	Quantity	7.42E+02								
	Note									
3. Dist	ribution stage info	rmation (per unit):	means, distance, lo	pading ratio, consu	mptions and emiss	ions/discharges.				
			Diesel truck	Diesel truck	-	-				
Distribution	Means of transportation	Freight by ship	:20ton	:2ton						
	Conditions	Load(kg · km)	Load(kg · km)	Load(kg · km)						
Distr	Quantity	4.41E+05	8.12E+04	1.50E+03						
	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		
Product	Distribution	Electricity (kWh)	Diesel oil as	Gasoline as fuel(kg)	Furnace urban	Industrial water(kg)	Groundwater (kg)	Ordinary steel (kg)	Stainless steel (kg)		
	Quantity	1.80E+03	1.03E-03	6.85E+00	<u>gas (m<sup>3</sup>)</u> 7.29E+01	6.35E+02	5.84E+03	9.40E+01	9.62E+00		
	Note										
	Classification	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Processing	Processing		
Product	Distribution	Aluminium (kg)	Copper(kg)	Thermoplastic resin(kg)	Wood(kg)	Paper(kg)	Rubber(kg)	Press:Iron(kg)	Press: Nonferrous(kg)		
Pre	Quantity	1.38E+01	1.26E-01	1.99E+02	1.00E+01	4.41E+01	2.13E+00	1.44E+02	5.26E+00		
	Note										
	Classification	Processing	To Water system								
Product	Distribution	Injection molding (kg)	Sewage(kg)								
۵.	Quantity	3.23E+01	4.00E+03								
	Note										
	Classification	Distribution	Distribution	Distribution							
Product	Distribution	Freight by ship (kg· km)	Diesel truck: 20ton (kg∙km)	Diesel truck: 10ton (kg•km)							
	Quantity	5.74E+05	2.85E+05	3.61E+04							
	Note										
1.2 Dis	2 Disposition/Recycle information on consumables and replacement parts										

sumables	Classification	Consumption	Consumption	Treatment	Treatment	Treatment	Treatment	Treatment	Treatment			
	Distribution	Electricity (kWh)	Kerosene(kg)	Recycle: to iron(kg)	Recycle: to Aluminum(kg)	Recycle: to copper(kg)	Recycle: to plastics(kg)	Recycle: to Paper(kg)	Industrial waste destruction by fire(kg)			
Const	Quantity	5.93E+00	7.59E-02	4.14E+01	5.51E+00	5.04E-02	3.24E+01	2.16E+01	8.52E-01			
Ŭ	Note											
10	Classification	Treatment	Treatment	Treatment	Deduction	Deduction	Deduction	Deduction	Deduction			
sumables	Distribution	Industrial waste inning(kg)	Waste destruction by fire(kg)	Waste inning(kg)	lron(kg)	Aluminum(kg)	Copper(kg)	Plastics(kg)	Paper(kg)			
Const	Quantity	3.90E-01	8.28E+01	7.05E+01	-4.14E+01	-5.51E+00	-5.04E-02	-3.24E+01	-2.16E+01			
Ŭ	Note											
	Classification	Distribution	Distribution									
sumables	Distribution	Diesel truck: 10ton (kg∙km)	Diesel truck: 4ton (kg∙km)									
Const	Quantity	1.23E+04	1.48E+04									
Ŭ	Note											

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

S.	2	Classification	Consumption	Consumption	Treatment	Treatment	Treatment	Treatment	Treatment	Treatment
nables		Distribution	Electricity (kWh)		Recycle: to	Recycle: to	Recycle: to	Recycle: to	Recycle: to	Recycle: to
1		Distribution		Kerosene(kg)	iron(kg)	Aluminum(kg)	copper(kg)	Glass(kg)	plastics(kg)	Paper(kg)
ISUC		Quantity	6.02E+00	7.71E-02	6.31E+01	9.09E-01	2.16E+00	1.42E+00	2.16E+01	1.36E+01
S		Note								
		Classification	Treatment	Treatment	Treatment	Treatment	Treatment	Deduction	Deduction	Deduction
saldamus		Distribution	Recycle: to Assembled circuit board(kg)	Incineration: Industrial waste(kg)	Landfill: Industrial waste(kg)	Incineration to landfill (as ash)(kg)	Landfill: General waste(kg)	lron(kg)	Aluminium (kg)	copper(kg)
		Quantity	5.20E-01	1.10E+00	4.16E-01	5.26E+01	1.02E+02	-6.31E+01	-9.09E-01	-2.16E+00
		Note								
		Classification	Deduction	Deduction	Deduction	Deduction	Distribution	Distribution		
Consumables		Distribution	Glass(kg)	Plastics(kg)	Paper(kg)	Recycle: to Assembled circuit board(kg)	Diesel truck: 10ton (kg•km)	Diesel truck: 4ton (kg•km)		
		Quantity	-1.42E+00	-2.16E+01	-1.36E+01	-5.20E-01	1.25E+04	1.51E+04		
		Note								

### 6. Others

A.Product information: All the parts mass per unit sorted by materials and by processes/assembly are included. The motor mass is included in ordinary steel.

B.Production site information: The energy consumption & material use during the main body assemby and cartridge & toner shipment are included. The environmental impacts that are exhausted from the production site in the atmosphere and the water system are included.

C.Distribution stage information:

The total distance of the transportation in Japan of 100km is used according to PCR (AD-04) and the transportation overseas includes the transportation by track in China and by ship between China and Japan.

The power consumption is calculated assuming the use period of five years and 3,375,000 sheets printed during the use period according to the PCR (AD-04). The power consumption is calculated assuming the use period of five years and 3,375,000 sheets printed during the use period according to the PCR (AD-04). The toner consumption is summed up over the five years from the toner consumption data per sheet using our print pattern with 5% coverage. The production impacts of the cartridges and toner used during the use period of five years are included. The impacts of the maintenance parts used and the transportation impacts of the maintenace during the use period of five years are included.

E. Disposal/Recycle information on the consumables and the maintenance parts during use stage: The recycling information of the toner, the developer, the drums and the maintainance parts used during the use period of five years are included. The recycling processing impacts are included as plus and the production impacts of the recycled materials are included as minus.

F.Disposal/Recycle stage information: The information on the products recovered from users is included. The recycling processing impacts are included as plus and the production impacts of the recycled materials are included as minus.