Product Environmental Aspects Declaration

Telephone (PCR No.AY-03)

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Panasonic

VE-GP24TA

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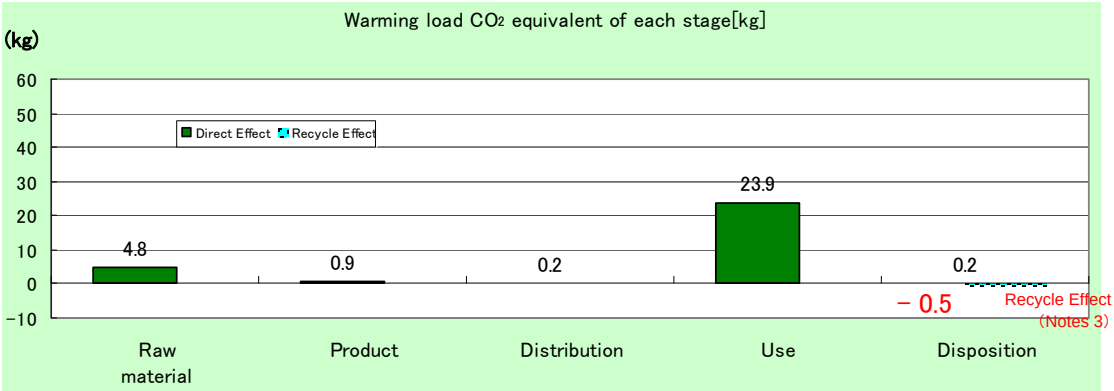
Product Specification
・Personal use
・Base Unit 1set 510g/Unit

Life Cycle Impacts

Consumption and discharge in a life cycle	All the stage sum totals
Global Warming (CO_2 equivalent)	29.902kg (29.364kg)
Acidification (SO_2 equivalent)	0.038kg (0.037kg)
Energy resources (crude oil equivalent)	648MJ (640MJ)

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



The manuals, accessories, packing material and the set box are contained in the range of this diclaration.
The environmental burden of use stage is calculated using assumption of five years-usage, 30minutes/day-operation and 1minutes/ringing-alert time.

Notes:

1. Original LCA data is available on "PEIDS",Product Environmental Information Declaration Sheet and "PDS",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.jemai.or.jp/ecoleaf_e/ for details.
3. Recycle Effect illustrates an indirect influence to other products/services.
4. Although this product is manufactured in China, Japanese data have been used as EcoLeaf generic data, instead of Malyasia data that have not been developed.

[Supplemental environmental information]

Main assembly production of this product is manufactured at the factory certified by ISO 14001.
Specific brominated flame retardants,PBB and PBDE are not contained in plastic console material.
Pb-free solder is used for the main circuit board.
A chrome free steel plate which avoided hexavalent chrominum is used for this product.

PCR review was conducted by:the chair Mr.Hisashi Ishitani, KEIO University at PCR Deliberation Committee in January 1, 2008.
Independent verification of the declaration and data, according to ISO14025:2006 ☐internal ■external
Third party verifier: name of the third party verifier *was Mr.Keiichi Aramaki.

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-B(F-02Bs-02)

Product Environmental Information Data Sheet（PEIDS）

Document control no.	F-02Bs-02
Product vendor	Panasonic System Networks Co.,Ltd.
EcoLeaf registration no.	AY-09-041

Unit Function DB version	v2.1
Characterization Factor DB version	v2.1

PCR name	Telephone		Product type	VE-GP24TA			
PCR code	AY-03	Product weight (kg)	0.39	Package (kg)	0.86	Weight total (kg)	1.25

In/Out items \ Life Cycle Stage						Unit	Production		Distribution	Use	Disposition	Recycle Effect
							Raw material	Product				
Energy Consumption						MJ	9.02E+01	1.55E+01	2.73E+00	5.39E+02	6.90E-01	-7.93E+00
						Mcal	2.16E+01	3.71E+00	6.52E-01	1.29E+02	1.65E-01	-1.89E+00
Inventory anaiyses	Impact by Resource Consumption	Exhaustible resources	Energy resources		Coal	kg	4.26E-01	1.09E-01	6.38E-06	3.06E+00	2.11E-03	-1.11E-02
					Crude oil (for fuel)	kg	1.01E+00	1.24E-01	5.96E-02	3.46E+00	1.11E-02	-1.52E-01
					LNG	kg	1.47E-01	5.45E-02	9.22E-04	1.53E+00	1.19E-03	-7.73E-03
					Uranium content of an ore	kg	1.66E-05	7.36E-06	4.32E-10	2.08E-04	1.42E-07	-7.52E-07
			Mineral resources		Crude oil (for material)	kg	3.24E-01	0	0	0	0	0
					Iron content of an ore	kg	1.93E-01	0	0	0	0	0
					Cu content of an ore	kg	3.38E-02	0	0	0	0	0
					Al content of an ore	kg	1.72E-03	0	0	0	0	0
					Ni content of an ore	kg	3.49E-06	0	0	0	0	0
					C content of an ore	kg	6.36E-05	0	0	0	0	0
					Mn content of an ore	kg	9.42E-04	0	0	0	0	0
					Pb content of an ore	kg	2.43E-03	0	0	0	0	0
					Sn content of an ore	kg	0	0	0	0	0	0
					Zn content of an ore	kg	2.39E-02	0	0	0	0	0
					Au content of an ore	kg	0	0	0	0	0	0
					Ag content of an ore	kg	0	0	0	0	0	0
					Silica Sand	kg	4.58E-02	0	0	0	0	0
					Halite	kg	9.23E-02	0	0	0	5.82E-04	0
					Limestone	kg	6.15E-02	0	0	0	1.52E-03	0
					Natural soda ash	kg	2.79E-03	0	0	0	0	0
		Renewable resources			Wood	kg	1.17E+00	0	0	0	0	-8.94E-01
					Water	kg	3.47E+02	8.57E+01	4.80E-03	2.32E+03	1.69E+00	-3.89E+01
	Impact by Emission/Discharge to the environment	to Atmosphere			CO2	kg	4.65E+00	8.48E-01	1.93E-01	2.38E+01	1.98E-01	-5.31E-01
					Sox	kg	2.71E-03	6.47E-04	1.50E-04	1.82E-02	1.23E-04	-1.19E-04
					Nox	kg	6.37E-03	5.33E-04	1.48E-03	1.44E-02	5.65E-04	-1.01E-03
					N2O	kg	3.86E-04	9.65E-06	2.46E-05	2.60E-04	1.15E-06	-2.89E-05
					CH4	kg	4.45E-05	1.97E-05	1.16E-09	5.55E-04	3.81E-07	-2.02E-06
					CO	kg	5.22E-04	1.32E-04	5.01E-04	3.52E-03	1.85E-04	-2.83E-05
					NMVOC	kg	8.71E-05	3.86E-05	2.26E-09	1.09E-03	7.46E-07	-3.95E-06
					CxHy	kg	1.77E-04	2.54E-06	3.68E-05	5.67E-05	8.44E-06	-1.38E-05
					Dust	kg	5.08E-04	2.95E-05	1.27E-04	7.78E-04	4.07E-05	-1.76E-05
		to Water system	to Water domain		BOD	kg	-	-	-	-	-	-
					COD	kg	-	-	-	-	-	-
					N total	kg	-	-	-	-	-	-
					P total	kg	-	-	-	-	-	-
					SS	kg	-	-	-	-	-	-
		to Soil system			Unspecified Solid Waste	kg	5.40E-02	1.21E-04	0	0	7.29E-01	-3.02E-03
					Slag	kg	1.30E-01	0	0	0	0	0
					Sludge	kg	0	0	0	0	0	0
					Low level radio-active waste	kg	1.16E-05	5.14E-06	3.03E-10	1.45E-04	9.94E-08	-5.25E-07
Impact assessment	by Resources Exhaustible resources				Energy resources (crude oil equivalent)	kg	1.60E+00	3.19E-01	6.08E-02	8.97E+00	1.51E-02	-1.75E-01
					Mineral resources (Iron ore equivalent)	kg	9.76E+00	0	0	0	0	0
	by Emission	to Atmosphere			Global Warming (CO2 equivalent)	kg	4.75E+00	8.51E-01	2.00E-01	2.39E+01	1.98E-01	-5.39E-01
					Acidification (SO2 equivalent)	kg	7.17E-03	1.02E-03	1.19E-03	2.83E-02	5.18E-04	-8.24E-04
					Photochemical Oxidant	kg	3.15E-04	2.94E-05	6.65E-05	8.01E-04	2.04E-05	-1.42E-05

[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) 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 reclaimed materials/parts, and/or by supply of used products to other businesses for material reclaim/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. CO_2 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.)(Refer to the list of Basic Unit at Ecoleaf website.)

[Notes for readers: Target product specific]

Recycle Effect illustrates an indirect environmental influences to other products/services by use of reclaimed product corrugated cardboard.

As a general rule, the generic data of materials are numerical data of material production from ores and do not include scraps.

Form 3(F-03s-02)

Product data sheet

(Input data and parameters for LCA)

Document control no.	F-03s-02
Product vendor	Panasonic System Networks Co.,Ltd.
EcoLEaf registration no.	AY-09-041

PCR name	Telephone (AY-03)	Product type	VE-GP24TA				
LCA/LCIA in units of:	1set	Product weight (kg)	0.39	Package (kg)	0.86	Weight total (kg)	1.25

1. Product information (per unit): parts etc. by material and by process/assembly method

	Breakdown of primary materials				Math breakdown of parts, which need to apply Processing / Assembly Base Units (Parts B, C)			
	Material name	Weight (kg)	Material name	Weight (kg)	Process name	Weight (kg)	Process name	Weight (kg)
Product	Steel	3.33E-02	Medium-sized motor	1.96E-02	Press molding:Iron (kg)	3.11E-01		
	Electromagnetic steel plate	1.38E-01			Press molding:Nonferrous metal (kg)	5.51E-01		
	copper	6.48E-02			Injection molding (kg)	2.68E-01		
	Glass	9.66E-03						
	Thermoplastic resin	3.43E-01						
	Rubber	2.20E-02						
	Paper	5.43E-01						
	Assembled circuit board	7.98E-02						
	Subtotal	1.23E+00	Subtotal	1.96E-02				
	Total			1.25E+00	Subtotal	1.13E+00	Subtotal	0.00E+00

Note Accessories, such as packing material and a handling description, are appropriated for packing etc.

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

SOx and NOx should be indicated in SO_2, NO_2 equivalent.

Consumption	Classification	Energy	Material	Consumption	Consumption	Consumption			
	Distribution	Electricity (kWh)	Industrial water (kg)	Diesel truck: 10 ton (kg.km)	Freight by ship (kg.km)	Freight by rail (kg.km)			
	Quantity	1.46E+00	3.20E+00	1.40E+01	3.68E+01	6.90E+00			
	Note								
Emission / Discharge	Classification								
	Distribution								
	Quantity								
	Note								

Note On the manufacture stage, the manufacture load of an LCD and an speaker and the manufacture load of a main part assembly are added up.

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

Distribution	Means of transportation	Consumption	Consumption	Consumption	Consumption				
	Conditions	Freight by ship (kg.km)	Diesel oil as fuel (kg)	Diesel truck: 10 ton (kg.km)	Diesel truck: 4 ton (kg.km)				
	Quantity	1.99E+03	3.00E-03	1.00E+03	2.45E+01				
	Note								

Note The land from an overseas manufacture site to Japan and marine transportation load are added up. Moreover, domestic transportation distance is set to 500km based on PCR regulation.

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

Product	Classification	Consumption							
	Distribution	Electricity (kWh)							
	Quantity	5.72E+01							
	Note								

Note a. Based on PCR regulation, usable years are made into five years and telephone call: 30 minute / one day, incoming call: 1 minute / one day. Moreover, it is standby mode all the time except the time of use.
b. The power consumption of the telephone equipment is 57.17 kWh.

4.2 Disposition/Recycle information on consumables and replacement parts

Consumables	Classification								
	Distribution								
	Quantity								
	Note								

Note

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

Scenario	Classification	Consumption	Consumption	Discharge	Discharge	Consumption	Deduction		
	Distribution	Diesel truck: 4 ton (kg.km)	Shredding (kg)	Incineration to landfill (as ash) (kg)	Landfill: General waste (kg)	Recycle: to corrugated cardboard (kg)	Corrugated cardboard (kg)		
	Quantity	2.51E+02	8.30E-01	1.20E-01	7.10E-01	4.20E-01	4.20E-01		
	Note								

Note As wastes, combustibles are added up after crush and incineration and incombustibles are added up as reclamation.

6. Others