



10250T Pushbutton Selector Switch Operator

Representative product	10250T1311 (Pushbutton Selector Switch Operator) PSR Product Category: None
Description of the product	Selector switch operator is a mechanical device that can be rotated right, left, or center to open or close the electrical contacts. The product considered for the study is Eaton 10250T1311 pushbutton, Heavy-Duty Selector Switch Operator. The main function of this operator is to control devices and also to switch between a minimum of two or above electrical circuits. This is applicable where more than one control option is required.
Homogeneous Environmental Families Covered	The PEP concerns following product offerings from 10250T series as mentioned below: 10250T1311 (Reference), 10250T1371, 10250T1322, 10250T1323, 10250T1332, 10250T1333, 10250T1342, 10250T1343, 10250T1352, 10250T1353, 10250T1367
Functional unit	To control devices and switch between a minimum of one electrical circuit by rotating the knob during 20 years of lifetime.
Company information	Eaton Corporation – Haina, Lot#32, Parque Industrial Itabo-PIISA, Carretera Sanchez Km 18.5, 33166-6503, Haina, Dominican Republic. Email: productstewardship-es@eaton.com

Constituent Materials			
Reference product mass	1.38E-01 kg (including packaging)		
Category PEP Material	Materials	Mass (kg)	Percentage (%)
Metals	Zinc	9.16E-02	66.3%
Others	Corrugated cardboard	3.08E-02	22.3%
Plastics	Phenolic resin	4.00E-03	2.9%
Plastics	Polyvinyl chloride	2.72E-03	2.0%
Metals	Steel	2.22E-03	1.6%
Plastics	Polyamide	2.20E-03	1.6%
Plastics	Polyoxymethylene	2.15E-03	1.6%
Others	Glass Fibre	1.72E-03	1.2%
Plastics	Nitril rubber	4.08E-04	0.3%
Others	Paper	2.31E-04	0.2%
Others	Glue	2.85E-05	<0.1%
Metals	Silicon	1.78E-05	<0.1%
Total		1.38E-01	100%

Substance Assessment

The representative product is compliant with the EU-RoHS Directive (2011/65/EU) without any exemption and the product doesn't contain any substance listed as Substance-of-Very-High-Concern (SVHC) on the Candidate List of the EU-REACH Regulation (1907/2006/EC).

Additional Environmental Information

Manufacturing	The reference product is assembled at an Eaton plant holding management system certifications according to ISO 14001 standards.
Distribution	Eaton is committed to minimizing weight and volume of product and packaging with focus to optimize transport efficiency.
Installation	The installation of the product does not require any additional energy source and no waste other than the obsolete product packaging is generated during this step.
Use	The product does not have maintenance during operation.
End of life	Default scenario of 100% incineration without energy recovery is considered for End of life treatment of product.

Environmental Impacts	
The calculation of the environmental impacts is the result of the Product's Life Cycle Analysis in accordance with ISO 14040/44, covering the entire lifecycle, i.e., "Cradle-to-Grave" including the following life cycle phases: production, distribution, installation, use and end of life. System modelling was carried out using the commercial LCA software EIME v5.9.4 with database version CODDE-2022-01.	
Manufacturing Phase	The product is assembled as well as packed at Eaton plant in Haina, DR. The product is then transported from Eaton's manufacturing facility in Haina to Eaton warehouse in Duncan (2730 km by Ship), and from there to Eaton warehouse in Fontana (2180 km by Road). Energy model used: USA
Distribution Phase	Distribution of the product with its packaging from the Eaton's last logistics platform to the installation place in North America (2248 km by Road) is considered as per PCR rules.
Installation Phase	Product is installed in North America. Only treatment of packaging waste is considered in this phase. Energy model used for treatment of packaging: Europe
Use Phase	Reference lifetime: 20 Years (assumed) Usage profile: No energy consumption by the product during its useful life.
End of life Phase	Energy model used: Europe

Environmental Impact Indicators: Mandatory

Environmental impact indicators	Units	Total	Manufacturing	Distribution	Installation	Use	End of Life
Resource use, minerals and metals (ADPe)	kg Sb eq.	7.13E-05	7.13E-05	8.31E-10	1.89E-10	0.00E+00	6.87E-10
Resource use, fossils (ADPf)	MJ	1.96E+01	1.76E+01	2.95E-01	6.20E-02	0.00E+00	1.67E+00
Acidification Potential (AP)	mole of H ⁺ eq.	9.97E-03	9.44E-03	1.34E-04	3.95E-05	0.00E+00	3.57E-04
Eutrophication, freshwater (Epf)	kg P eq.	9.29E-06	9.11E-06	7.92E-09	7.25E-09	0.00E+00	1.62E-07
Eutrophication marine (Epm)	kg N eq.	1.57E-03	1.42E-03	6.27E-05	1.86E-05	0.00E+00	7.69E-05
Eutrophication, terrestrial (Ept)	mol N eq.	1.65E-02	1.48E-02	6.88E-04	1.99E-04	0.00E+00	8.29E-04
Climate change-Total (GWP)	kg CO ₂ eq.	1.39E+00	9.85E-01	2.11E-02	4.67E-03	0.00E+00	3.82E-01
Climate change-Biogenic (GWPb)	kg CO ₂ eq.	3.72E-03	3.72E-03	0.00E+00	-6.82E-07	0.00E+00	-5.48E-07
Climate change-Fossil (GWPf)	kg CO ₂ eq.	1.39E+00	9.82E-01	2.11E-02	4.67E-03	0.00E+00	3.82E-01
Climate change-Land use and land use change (GWPlu)	kg CO ₂ eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ozone depletion (ODP)	kg CFC-11 eq.	3.31E-07	2.33E-07	3.24E-11	5.31E-11	0.00E+00	9.81E-08
Photochemical ozone formation - human health (POCP)	kg NMVOC eq.	5.19E-03	4.52E-03	1.73E-04	4.93E-05	0.00E+00	4.45E-04
Water use (WU)	m ³ eq.	6.87E-01	6.55E-01	8.02E-05	2.86E-03	0.00E+00	2.91E-02

Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	-4.23E-01	-4.24E-01	3.93E-04	7.44E-05	0.00E+00	7.49E-04
Use of renewable primary energy resources used as raw material	MJ	7.95E-01	7.95E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources	MJ	3.72E-01	3.70E-01	3.93E-04	7.44E-05	0.00E+00	7.49E-04
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.92E+01	1.72E+01	2.95E-01	6.20E-02	0.00E+00	1.67E+00
Use of non renewable primary energy resources used as raw material	MJ	4.35E-01	4.35E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources	MJ	1.96E+01	1.76E+01	2.95E-01	6.20E-02	0.00E+00	1.67E+00
Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of freshwater	m ³	1.60E-02	1.53E-02	1.87E-06	6.66E-05	0.00E+00	6.78E-04
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported Energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hazardous waste disposed	kg	2.09E-01	7.07E-03	0.00E+00	7.17E-06	0.00E+00	2.02E-01
Non hazardous waste disposed	kg	1.28E+00	1.23E+00	7.41E-04	3.12E-02	0.00E+00	2.04E-02
Radioactive waste disposed	kg	9.39E-05	6.86E-05	5.28E-07	1.12E-07	0.00E+00	2.47E-05
Biogenic carbon content of the product	kg C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the associated packaging	kg C	8.71E-03	8.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Environmental Impact Indicators: Optional

Environmental impact indicators	Units	Total	Manufacturing	Distribution	Installation	Use	End of Life
Ecotoxicity, freshwater	CTUe	9.66E+01	9.32E+01	1.42E-02	1.89E-01	0.00E+00	3.21E+00
Human toxicity, cancer	CTUh-c	2.36E-07	2.30E-07	3.71E-13	2.49E-10	0.00E+00	5.69E-09
Human toxicity, non-cancer	CTUh-nc	7.30E-07	7.29E-07	4.02E-11	9.25E-11	0.00E+00	1.12E-09
Ionising radiation, human health	kBq U235 eq.	6.85E-01	6.82E-01	5.14E-05	1.76E-05	0.00E+00	2.69E-03
Land use	--	5.92E-05	5.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EF-particulate Matter	Disease occurrence	5.58E-08	5.27E-08	1.09E-09	2.68E-10	0.00E+00	1.80E-09
Total Primary Energy	MJ	2.00E+01	1.80E+01	2.95E-01	6.21E-02	0.00E+00	1.67E+00

To evaluate the environmental impact of other product covered by this PEP, multiply the impact figures by-

Factors for Manufacturing, Distribution, Installation, Use and End-of-Life Phase:

Products	Phases	All impact indicators
10250T1311 (Reference) 10250T1371 10250T1322 10250T1323 10250T1332 10250T1333 10250T1342 10250T1343 10250T1352 10250T1353 10250T1367	All Phases	1

Disclaimer

This Product Environmental Profile and its content is based on information available to us. It refers to the product at the date of issue. We make no express or implied representations or warranties with respect to the information contained herein.

Registration N°	EATO-00073-V01.01-EN	Drafting rules	PCR-ed4-EN-2021 09 06
Verifier accreditation N°	VH49	Supplemented by	-
Date of issue	06-2023	Information and reference documents	www.pep-ecopassport.org
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025: 2010			
Internal		External	X
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)			
PEPs are compliant with XP C08-100-1:2016 or EN 50693:2019			
The components of the present PEP may not be compared with components from any other program.			
Document in compliance with ISO 14025: 2010 « Environmental labels and declarations. Type III environmental declarations »			