

SAUTER Declaration on materials and the environment

Product



Type	BQD065F300 BQD080F300 BQD100F300
Designation	Flanged 3-way valve
Product range	Valves
Product group of eco-balance	Valves, dampers and ball valves

Manufacturer

Fr. Sauter AG
Im Surinam 55, CH-4016 Basel

Product description

CE conformity	
Function, operation, maintenance, service	PDS 56.113

Environmental risk

Fire protection according to	EN 60695-2-11, EN 60695-10-2
Fire load ¹	1.6...2.6 MJ
Hazardous substances ²	Conforming to RoHS 2011/65/EU
Banned substances (see link below)	Conforming to REACH 1907/2006/EC
Parts containing halogen (causing corrosive smoke)	None
Liquids polluting the aquatic environment	Lubricant
Explosive substances	None

Packaging ³

PE cap	151...324 g
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¹ See **Remarks** on last page

² Only applies to electrical devices

³ Directive 94/62/EC and follow-on document, ruling 97/129/EC

Materials

	Total weight of product ⁴	12849...25406 g	Material Safety Data Sheet (MSDS)	EU waste code ⁵
Plastic				
PTFE	3.6 g		Yes	20 01 39
EPDM	7.2...9.2 g		Yes	20 01 39
Metal				
Grey cast iron	10,470...20,040 g		Not required	20 01 40
Steel of different alloys	1684...2626 g		Not required	20 01 40
Brass of different alloys	4.5 g		Not required	20 01 40
Aluminium	16 g		Not required	20 01 40
Various				
None				
Special components				
Adhesive	2 g		Yes	08 04 09
Lubricant (silicon-free)	2 g		Yes	20 01 26
Paint	39...71 g		Yes	08 01 11



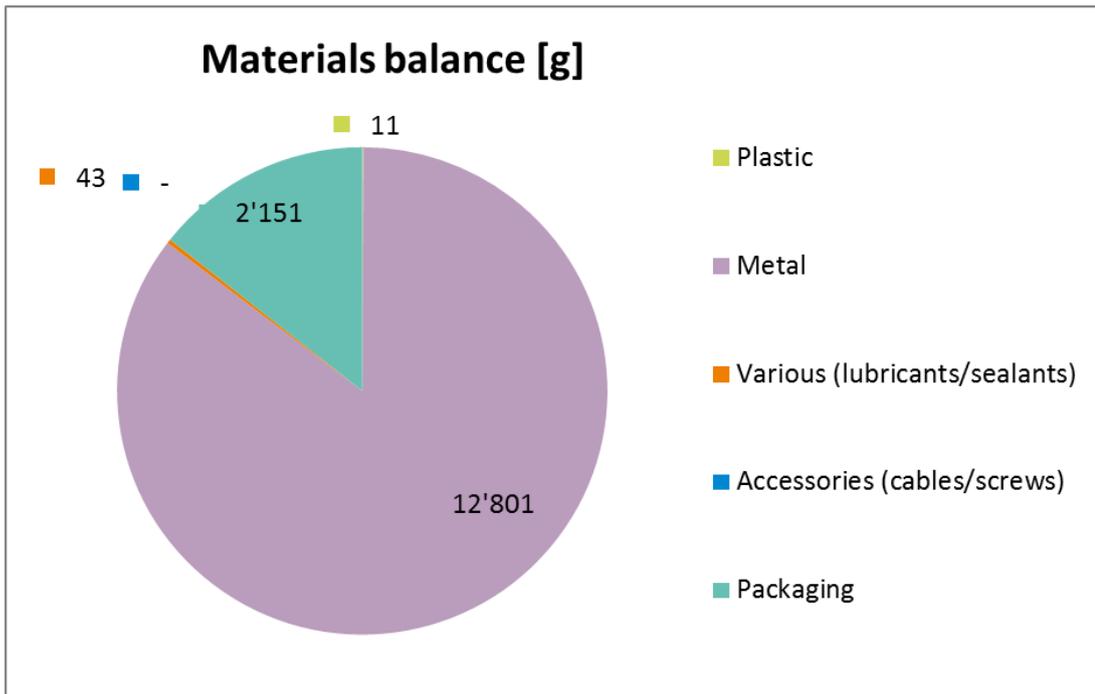
Note

The following materials balance and the calculation of the environmental impact relate to type BQD065F300.

⁴ See **Remarks** on last page

⁵ Directive 75/442/EEC and follow-on document, ruling 2001/118/EC

Materials balance



Energy requirement in the utilisation phase

Power requirement for component

- Minimum power consumption -- W
- Average power consumption -- W
- Typical energy consumption per year -- kWh

The analysed valve is a passive component that is used as a control element in combination with an actuator. The energy consumption of the control element is measured and evaluated on the actuator.

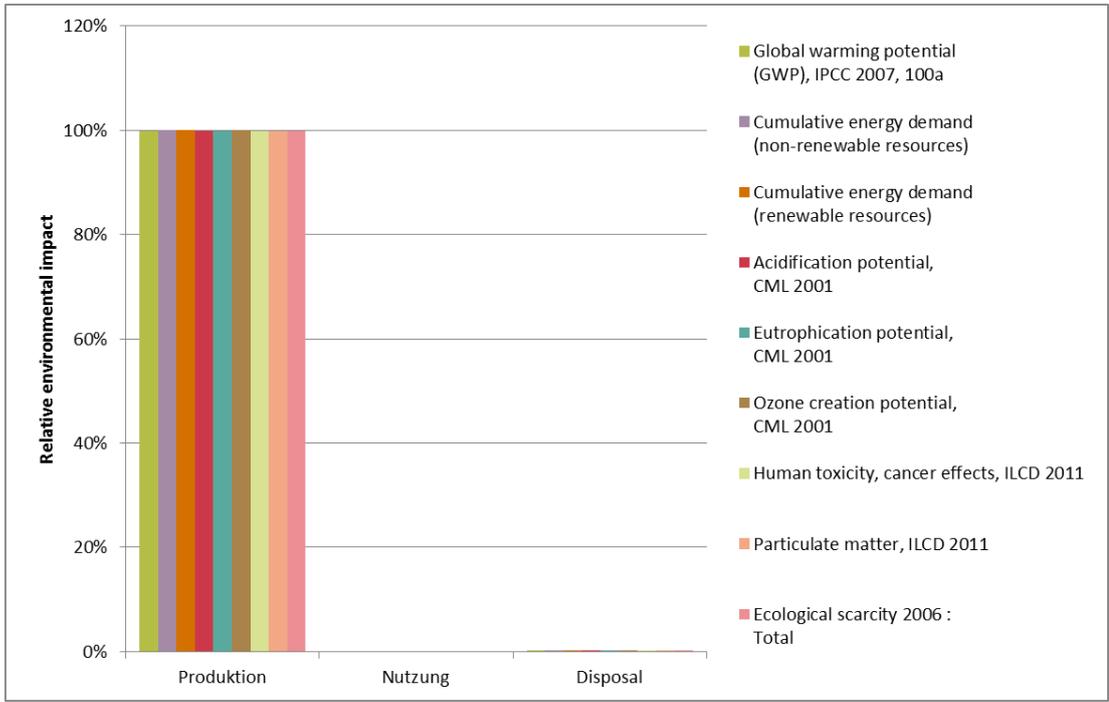
Calculation of the environmental impact

Evaluation over the entire life stage of 8 years in a typical utilisation scenario. The results additionally shown are based on a method of ecological scarcity that combines various environmental effects into an “environmental impact points” key figure. The method is based on Switzerland’s environmental targets and evaluates the individual effects depending on the “Distance to Target”.

Standard Indicators	Unit	Production "cradle to gate"	Utilisation	Disposal
Global warming potential (GWP), IPCC 2007, 100a	kg CO2 eq.	41.2	-	0.02
Cumulative energy demand (non-renewable resources)	MJ eq.	850	-	0.1
Cumulative energy demand (renewable resources)	MJ eq.	134	-	0.00
Acidification potential, CML 2001	kg SO2 eq.	1.64E-01	-	7.50E-05
Eutrophication potential, CML 2001	kg PO4-- eq.	7.80E-02	-	4.01E-05
Ozone creation potential, CML 2001	kg C2H4 eq.	1.76E-02	-	3.02E-06
Complementary indicators				
Human toxicity, cancer effects, ILCD 2011	CTUh	4.38E-05	-	2.29E-08
Particulate matter, ILCD 2011	kg PM2.5 eq	2.93E-02	-	9.38E-06
Ecological scarcity 2006 : Total	UBP	86'400	-	40

*** Scenario waste disposal analysis (cut-off for recycling)**

Part of recycling	98%
Part of waste disposal in incineration plant	2%



The valve is used as a control element in combination with an actuator. The present eco-balance describes the ecological impact of the production and the disposal of the valve. The environmental impact of the actuator, including its energy requirement, is measured and evaluated separately.

 **Disposal**

Product:

The device must be disposed of as waste from electrical and electronic equipment (electrical/electronic scrap) and must not be disposed of as household waste. This applies in particular to the PCB assembly.

It is possible that special treatment for special components is compulsory by law or makes ecological sense.

Packaging:

Recyclable

The local and currently valid laws (WEEE2012/19/EU) must be observed.

Special information:

None

Remarks

⁽¹⁾ **Depending on the fire load for the type:**

BQD065F300	1.6	MJ
BQD080F300	2.0	MJ
BQD100F300	2.6	MJ

⁽²⁾ **Depending on the weight of the type:**

BQD065F300	12849	g
BQD080F300	18,306	g
BQD100F300	25,406	g

How the environment benefits

With these products we make a significant contribution to energy savings in buildings and to reducing global warming.

In the Green Building area, our products ensure that customer requirements are fulfilled optimally and that there is cost efficiency over the entire building life-cycle.

- These heavy-duty valves have an extremely long serviceable life and require no maintenance.
- Energy savings on heating and cooling due to good regulability of the flow.
- Optimum use of raw materials.

Extent of applicability

This declaration is an environmental declaration based on ISO 14025 and describes the environmental impact of the product over its entire life stage. The declaration is made in a compact form without an external check or registration.

The data gathered have been evaluated with existing data inventories for production processes from the ecoinvent 2.2 European database.

For the determination of the energy requirement during the utilisation phase of the product, standard HVAC applications and average climatic conditions in Switzerland were assumed, based on the ecological accounting for the corresponding product group.



Disclaimer: This declaration is only for information purposes.

Deviations from the information it contains can occur without being reported. Fr. Sauter AG explicitly rules out any liability for any consequences that may result due to the above information.



Your local SAUTER representative will provide further information on environmental aspects, and specifically on disposal.

References

Ecoinvent 2010 ecoinvent data v2.2, Swiss Center for Life Cycle Inventories, Dübendorf

FOEN 2008 eco-balances: method of ecological scarcity – eco-factors 2006, FOEN