

MD 53.100
MD 53.110 ¹

SAUTER Declaration on materials and the environment

Product



AKM115SAF232

AKM115SAF332

Type	AKM115SAF232, AKM115SAF332 ¹
Designation	Rotary actuator for ball valve, Smart Actuator ball valve
Product range	Electric drives
Product group of eco-balance	Small valve actuators

Manufacturer

Fr. Sauter AG
Im Surinam 55, CH-4058 Basel

Management system certified according to

	Since	With
ISO 9001:2015	10 Oct. 2018	SQS
ISO 14001:2015	10 Oct. 2018	SQS
ISO 45001:2018	10 Oct. 2018	SQS

Environmentally-compatible product design

Basis	Management system Fr. Sauter AG
Process	Business process • Product innovation • Ecological accounting

¹ AKM115SAF332

Product description	CE conformity, function, operation, maintenance, servicing	See PDS 53.100 / 53.110 ²
Environmental risk	Fire protection according to Fire load Hazardous substances ³ according to Hazardous substances ⁴ according to Parts containing halogen (causing corrosive smoke) Liquids polluting the aquatic environment Explosive substances Transport hazardous goods class	EN 60695-2-11, EN 60695-10-2 10 MJ – 11 MJ ² RoHS 2011/65/EU & 2015/863/EU compliant. Product category 9. REACH 1907/2006/EC compliant. Cable Lubricant None None

Materials

	Total weight of product	761,9 g ²	Material Safety Data Sheet (MSDS)	EU waste code ⁵
Plastic				
PC		224,7 g	Not required	20 01 39
PBT		125 g	Not required	20 01 39
POM		15 g	Not required	20 01 39
POM+20%PTFE		12 g	Not required	20 01 39
PA 66		17 g	Not required	20 01 39
PP-Folie		1 g	Not required	20 01 39
EPDM (TPV)		5,8 g	Not required	20 01 39
Metal				
Stainless stehl		125 g	Not required	20 01 40
sintered metals		50 g	Not required	20 01 40
Special components				
Printed circuit board, lead-free solder		62,9 g	Not required	20 01 36
Lubricant, synthetic long-life grease		2 g	yes	20 01 25
Motor		48 g	Not required	20 01 36
Packaging ⁶				
Corrugated board PAP 20		50 g	Not required	20 01 01
Paper PAP 22		10,5 g	Not required	20 01 01
LDPE PAP 04		3 g	Not required	20 01 39

² AKM115SAF332

³ Only applies to electrical devices

⁴ SVHC substances >0.1%w/w: see **Hazardous ingredients**

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

⁶ Directive 94/62/EC, 2004/12/EC, 2005/20/EC, 2018/852/EC

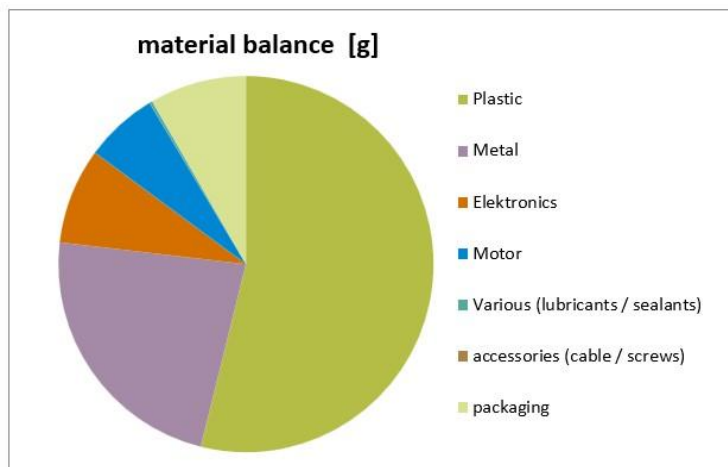
Hazardous ingredients

SVHC ingredient		Name of the ingredient	Effective concentration per article, %w/w
CAS number	EN number		
7439-92-1	231-100-4	Lead	< 10
119-47-1	204-327-1	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	< 0.3

SCIP number will be communicated upon justified request.

[Link to ECHA candidate list](#)

Materials balance



Material balance	g
Plastic	410,5
Metal	175,0
Elektronics	62,9
Motor	48,0
Various (lubricants / sealants)	2,0
accessories (cable)	0,0
packaging	63,5
	761,9

Energy requirement in the utilisation phase

Power requirement for component

Minimum power consumption 2,5 W

Average power consumption 5 W

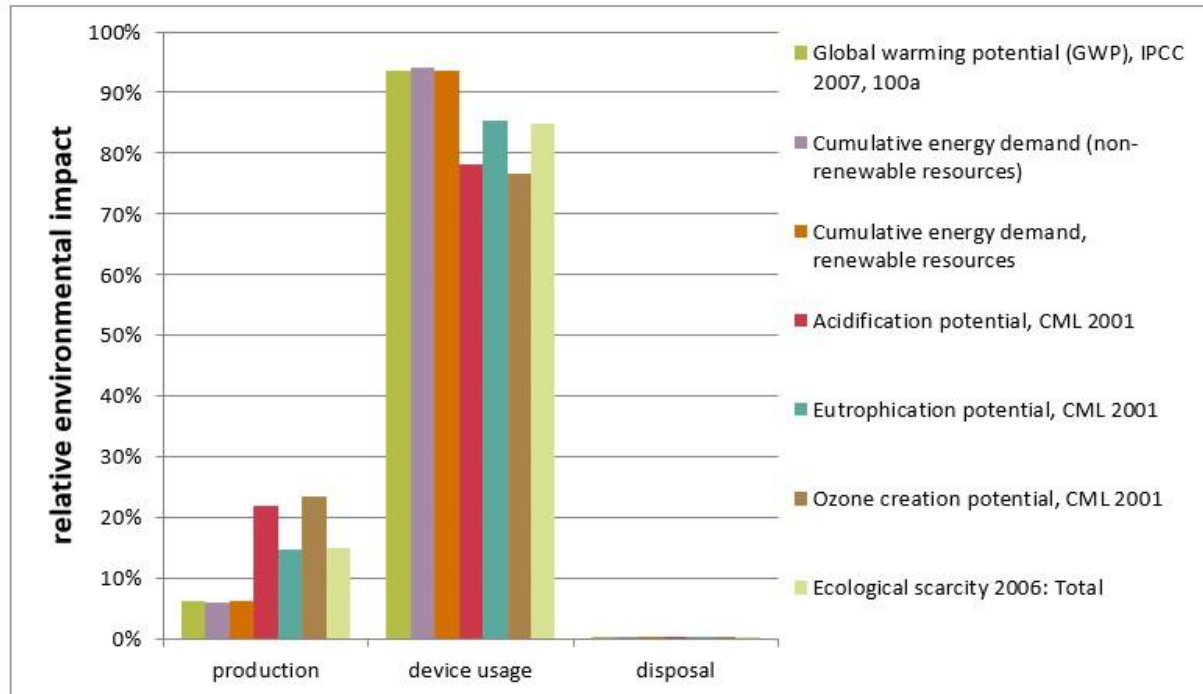
Typical energy consumption per year 24 kWh

The energy requirement evaluation was performed for a typical utilisation scenario. The European electricity mix from ecoinvent 2.2 was used to evaluate the power consumption in the utilisation phase.

Calculation of the environmental impact

Evaluation over the entire life stage of 8 years in a typical utilisation scenario. The results 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”.

Indikator	unit	production	device usage	disposal	Total
Global warming potential (GWP), IPCC 2007, 100a	kg CO ₂ eq.	12,4	185,7	0,5	198,6
Cumulative energy demand (non-renewable resources)	MJ eq.	235	3.762	0,7	3.998
Cumulative energy demand, renewable resources	MJ eq.	19,2	285,2	0,01	304,4
Acidification potential, CML 2001	kg SO ₂ eq.	2,14E-01	7,66E-01	2,01E-04	9,80E-01
Eutrophication potential, CML 2001	kg PO ₄ -- eq.	1,04E-01	6,08E-01	1,61E-04	7,13E-01
Ozone creation potential, CML 2001	kg C ₂ H ₄ eq.	9,37E-03	3,08E-02	7,49E-06	4,02E-02
Ecological scarcity 2006: Total	UBP	33.320	189.500	600	223.500



The relationship of the contributions made by the utilisation in comparison to those made by the reduction and disposal depends on the intensity of the utilisation (utilisation scenario).



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 assembled PCB.

Special treatment for special components may be compulsory by law or may make ecological sense.

WEEE (Waste Electrical and Electronic Equipment)

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

Packaging:

Recyclable. Any packaging disposal fees are the responsibility of the importer.

Special notes on hazards:

Residual electrical charge possible in capacitive components.

Remarks	Accessories depending on type, fire load and weight, - 0510480001 Auxiliary switch unit simple 3,8MJ / 180g - 0510480002 Auxiliary switch unit double 4,0MJ / 200g
Note	Silicon free
How the environment benefits	With these products, we make a significant contribution to energy savings in buildings and to reducing climate change. Its resource-saving compact design and easy single-sort disassembly result in optimal sustainability with a life expectancy of 8 years. The eco-balance becomes even more optimal, with the use of energy from renewable sources.
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 with existing data inventories for production processes has been evaluated 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 for information purposes only.

Deviations from the information it contains can occur without notification. 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 Centre for Life Cycle Inventories, Dübendorf

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