Byggvarubedömningen's guideline and information requirements for assessment of product, Version 2016-1.

These guidelines describe what information that Byggvarubedömningen requires for assessment of articles and chemical products. Information about the article or chemical product can be provided in this document, alternatively refer to another documentation in which the corresponding information is given.

1. Product information

Product

Product name:	Victaulic FireLock Sprinklers			
Article No.: Specify the type of number, for example RSK, E number, EAN, GTIN or supplier's article number. This should also be stated on the application.	V3402; V3403; V3404; V3405; V3406; V3416; V3421; V3423; V3424; V3408; V3412			
Product description:	Fire sprinklers			
On application, please attach a product data sheet or similar documentation.				
Type of product:	☐ Chemical product ☐ Article			
Date (year, month, day) of preparation/revision:	2016-Oct-20			
Supplier/Manufacturer				
Supplier:	Victaulic Europe BVBA			
Manufacturer if other than the supplier:				
Voluntary information	w 11			
Supplier contact:	Mr. Rik Ghysel			
Address:	Prijkelstraat 36			
	Nazareth, Belgium 9810			
E-mail:	Rik.ghysel@victaulic.com			
Phone number:	+3293811536			
Supporting documentation				
Has a declaration of performance, in line with the Swedish Construction Products Regulation, been prepared for the product?	☐ Yes	⊠ No		
If yes, attach the declaration of performance	ce with the application	est de Safa Safas de Los rebreitos de Antonio de 1		
Is the article/product an electronic product and covered by the RoHS-directive (2011/65/EU)?	☐ Yes	⊠ No		
If yes, attach an "EU Declaration of Confort to the requirements according to the RoHS	11 11 (00111100000000000000000000000000	cate that attests that the product corresponds th the application		
If the article/product is an electronic product that is covered by an exemption according to RoHS-directive (2011/65/EU), specify which exemption and date (year, month, day) when the exemption expires if time-limited:	Exemptions according to RoHS: Date:			

2. Declaration of contents:

Does the product or any of its subcomponents, if it is a composite product, contain substances with particularly hazardous properties (Substances of Very High Concern, SVHC-substances), which are included in the Candidate List at a concentration above 0.1 weight%?	☐ Yes	⊠ No
If yes, specify which substances in Table 1.		
State the date (year, month, day) for control the Candidate List.	Date: 2016 June 20	
The concentration is calculated at component level established	on the principle "once a produc	t, always a product" principle.
The Candidate List is available at: http://echa.europa.eu/sv/ca	ndidate-list-table.	

Specify the total content of the article or the chemical product, **on delivery**, in Table 1, or alternatively attach other documentation that provides the corresponding information. For instructions, please refer to the "Declaration of contents, BVB's declaration requirements, 2016-1", which is found at the end of this document.

Table 1, Contents of included substances and material (declaration of content in accordance with requirements)

	No./CAS No. (alternatively alloy)	Weight% (of entire product)	When applicable, state for which subcomponent	Weight% (of substance in subcomponent)	Comments (state eventual application of non-harmonized classifications)
Bronze	UNS C22000 UNS C51000 UNS C65100	11.3%	Deflector, load screw, pip cap	100.0%	
Glass		0.5%	Bulb	83.3%	
Glycerin	proprietary	0.1%	Bulb	16.7%	
Beryllium nickel	UNS N03360	0.5%	Seal	83.3%	
Polytetrafluoroethylene (PTFE)	9002-84-0	0.1%	Seal	16.7%	
Brass	UNS C35200	87.5%	Frame	100.0%	
Are all substances reported in percentage in Table 1?	s down to 0.01%	□ Yes		⊠ No	
		☐ Yes		⊠ No	
in Table 1?	nended level) Ins for the Accept f contents, BVB's	ed 🖂 Yes		⊠ No □ No	

If the chemical composition differs after application, then the content of the applied product is given in Table 2. This applies to chemical products. If the content is unchanged, no information needs to be provided in the table.

Table 2, Contents for applied products (full content in accordance with declaration requirements)

Included substances and material	EG No./CAS No.	Weight% (of the applied product)	Comments (state any application of non-harmonized classifications)

If any deviations from BVB's reporting requirements exist, specify these in the comments in Table 2, or alternatively here.		Other comm	nents:			
Nanomaterial						
Does the product contain any nanomaterial that has been purposefully added to achieve a specific function?			☐ Yes	*****	⊠ No	
Information regarding whether achieve a specific function must assessment.						
If yes, specify the material.			Material:			
3. Recycled raw	material					
Does the product contain re	ecycled material?		☐ Yes		⊠ No	
If yes, fill in Table 3.						
If the product consists of recy Table 3, Recycled materials. Table 3, Recycled material Material		Percentage (%) of the recycled ma	(6) aterial that has	Percentage (% of the recycled man	o) terial that has	e product, in Comments
	of the total product's weight	not reached the co such as production (pre-consumer)		reached the consul (post-consumer)	mer level	
If wood raw material is inc						
Can the product be ordered for the wood raw material?			☐ Yes		□ No	
Explain if the certificate does	s not cover all of	the wood raw ma	aterial:			
If yes, attach a certificate/as application.	ssurance that the	product can be o	ordered with a	sustainability certif	ficate togethe	r with the
If no, state the country whe harvested.			Country of h	arvest:		
Is the wood species or origin endangered species?	n in the CITES ap	pendix for	☐ Yes		□ No	
4. The production	n phase					
Has an Environmental Produ prepared?	ict Declaration (E	PD) been	☐ Yes		⊠ No	
If yes, enclose the EPD (Envapplication.	rironmental Produ	uct Declaration) o	r other enviror	mental product de	claration toge	ther with the

5. Distribution of the completed product

Describe the management of packaging for the distribution of the product	Description of the packaging:			
State whether any system for taking back or recycling packaging or any other specific return system is used.	Corrugated paperboard boxes			
Specify the packaging material used and which system of producer responsibility for packaging the supplier is affiliated to.				
Enter the proportion of recycled material, if any, included in the packaging.				
Other information:	L			
			-22 1774	
6. Construction and usage phase				
Are there any special requirements such as storage conditions etc. for the product during storage?	☐ Yes		⊠ No	
If yes, describe:				
Are there any special requirements for adjacent building				
products because of this product?	☐ Yes		⊠ No	
If yes, describe:				
Are there any operating/care instructions for the product?	⊠ Yes		□ No	
If yes, attach the documentation with the application. (See I-	40)			
Is the product energy labelled in accordance with the Energy Labelling Directive (2010/30/EU)?	☐ Yes	□ No		⊠ Not relevant
If yes, state class (G to A, A+, A++, A+++):	Class:			
7. Waste management				
7. Waste management Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling?	□ Yes		⊠ No	
Does the product require special measures to protect health and the environment in conjunction with	□ Yes		⊠ No	
Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling? If yes, describe:	□ Yes		⊠ No	
Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling?	□ Yes		⊠ No	
Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling? If yes, describe: Is the product covered by the WEEE-directive 2012/19/EU (Swedish ordinance (2014:1075) on Producer Responsibility for electrical and electronic products when it becomes				
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Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling? If yes, describe: Is the product covered by the WEEE-directive 2012/19/EU (Swedish ordinance (2014:1075) on Producer Responsibility for electrical and electronic products when it becomes waste? Is it possible to re-use all or parts of the product? (can the product be reused within the product's expected lifetime)?	☐ Yes		⊠ No	
Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling? If yes, describe: Is the product covered by the WEEE-directive 2012/19/EU (Swedish ordinance (2014:1075) on Producer Responsibility for electrical and electronic products when it becomes waste? Is it possible to re-use all or parts of the product? (can the product be reused within the product's expected lifetime)? If yes, describe: Is material recycling possible for all or parts of the product	☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ brass and bronze alloy	y compone	No No No No	an be recycled for
Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling? If yes, describe: Is the product covered by the WEEE-directive 2012/19/EU (Swedish ordinance (2014:1075) on Producer Responsibility for electrical and electronic products when it becomes waste? Is it possible to re-use all or parts of the product? (can the product be reused within the product's expected lifetime)? If yes, describe: Is material recycling possible for all or parts of the product when it becomes waste? If yes, describe: Victaulic FireLock Sprinklers consist of multiple.	☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ brass and bronze alloy	y compone	No No No No	an be recycled for
Does the product require special measures to protect health and the environment in conjunction with demolition/dismantling? If yes, describe: Is the product covered by the WEEE-directive 2012/19/EU (Swedish ordinance (2014:1075) on Producer Responsibility for electrical and electronic products when it becomes waste? Is it possible to re-use all or parts of the product? (can the product be reused within the product's expected lifetime)? If yes, describe: Is material recycling possible for all or parts of the product when it becomes waste? If yes, describe: Victaulic FireLock Sprinklers consist of multiple scrap according to local jurisdiction regulations and requirement.	☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ brass and bronze alloyets.	y compone	NoNoNoents that ca	an be recycled for

When the supplied product becomes waste, is it classified as hazardous waste?	☐ Yes	⊠ No
If yes, specify the waste code:	Waste code:	
The Swedish waste ordinance (2011:927) https://www.notisum.se/rnp/sls/lag/20110927.htm		
8. Indoor environment		
Has the product a critical moisture condition:	☐ Yes	⊠ No
Information regarding whether critical moisture conditions leading to microbial growth apply for the material/product should be stated, but will not impact the assessment.		
If yes, specify which:		
Is the product intended for use indoors?	⊠ Yes	□ No
If yes, has emission data been produced for volatile organic compounds?	☐ Yes	⊠ No
If yes, attach the report/certificate together with the application	n.	
If no, is there any motivation for why emission data for volatile organic compounds is not relevant for the product?	Motivation: VOCs are not relevant to metal	products.
Is the product a chemical product intended for indoor use?	☐ Yes	⊠ No
If yes, has emission data been produced for volatile organic compounds?	☐ Yes	□ No
If yes, attach the report/certificate together with the application	n.	TATAL TO A TOTAL SECUL
If no, is there any motivation for why emission data for volatile organic compounds is not relevant for the product?	Motivation:	-

Certificate of substance content and concentrations version. 4.0

This certificate is required for the Recommended assessment level for chemical contents. This page should be printed to be signed and uploaded separately in PDF-format in connection with the application.

Certificate of declaration of substance content

	For the products specified below, with their stated article numbers, the following is certified: Choose whether to certify alternative A or B.				
			It is hereby certified that concentrations of the included substances down to 0.01 weight% have been reported, and that cadmium and mercury do not occur in the product.		
	Α		or:		
			The substances included are reported in line with the instructions for the Declaration of Contents, BVB's reporting requirements 2016-1, and correspond to the reporting requirements for the Recommended level.		
			It is hereby certified that concentrations of the included substances down to 0.1 weight% have been reported, and that cadmium and mercury do not occur in the product.		
	В	\boxtimes	or:		
			The substances included are reported in line with the instructions for the Declaration of Contents, BVB's reporting requirements 2016-1, and correspond to the reporting requirements for the Accepted level.		
STATE OF THE PARTY OF		The state of the s	ecified below, with their stated article numbers, the following is certified: pertify alternative C or D.		
	С		It is hereby certified that the specified product/s do not contain specifically indicated substances and groups of substances in accordance with Table 4, Specifically indicated substances. These have not been added during production and have not been formed through reactions between the substances in the product.		
	D		Unfortunately, we have to notify that the specified products contain specifically indicated substances in accordance with Table 4, Specifically indicated substances. Some of these substances have been added or been formed during reaction between the substances in the product, please see the Declaration of Contents.		

Table 4, Specifically indicated substances

Substance group/Substance	Examples of properties
1. Arsenic and its compounds ¹	Toxic, Environmentally hazardous
2. Brominated flame retardants	Potentially PBT/vPvB, PBT/vPvB
3. PFOA (perfluorooctanioic acid)	Persistent, bioaccumulative, probable reproductive toxicity
4. PFOS (perfluorooctanesulfonates)	Potentially PBT/vPvB, PBT/vPvB
5. Organotin compounds	Potentially PBT/vPvB, PBT/vPvB, Toxic, Environmentally hazardous
6. Biocidal product applied on products (surface treatments) to provide a disinfectant or anti-bacterial effect.	Toxic, Environmentally hazardous

Victaulic FireLock Sprinklers
Mr. Rik Ghysel
Chyrico.
Nazareth, Belgium 2016 October 20

¹ Arsenic, or arsenic compounds, are not permitted to be added to the product. Contamination of used raw materials is not permitted to exceed 10 mg/kg. The concentration limit is set based on regulatory requirements for soil quality to ensure that accepted products do not raise background concentrations through their use or disposal (for example; sludge from sewage treatment works Swedish Ordinance 1998:944, Section 20). The same concentration limits are found in the Swedish Environmental Protection Agency's general guidelines for less sensitive land use (MKM).

Declaration of contents, BVB's declaration requirements, 2016-1

A complete declaration of contents in accordance with the instructions should be made for both products and chemical products. For products, minimum concentrations have to be reported as a weight% for the entire product. The contents can be provided in other documentation, if the reporting instructions are complied with, or alternatively supplemented so that they are in compliance. Reporting requirements for the Accepted level correspond to the requirements for "e-BVD2015".

For the Accepted and Recommended levels, classified substances are needed to be reported in the documentation if concentrations exceed limits (weight%) in accordance with *Table 5, Classified substances*. Those substances that are not included in Table 5 must be reported when concentrations of $\geq 2\%$ occur.

Material and substance contains can be provided in intervals. Examples of accepted intervals are: $\leq 1\%$, 1-2.5%, 2.5-10%, 10-25%, 25-50%, 50-75%, 75-100%. In occasion of large intervals, state the reason for the variance and describe what materials/substances increase or decrease in proportion if the product, for example, comes in different sizes.

If classification is applied that is not covered by harmonized classification, this information requires to be reported in the comments column for that substance.

Table 5, Classified substances

Hazard class	Reporting limit		
	Accepted	Recommended	
Carcinogenic categories 1A and 1B (H350)	≥ 0.1%	≥ 0.01%	
Carcinogenic category 2 (H351)	≥ 1%	≥ 0.1%	
Mutagenic categories 1A and 1B (H340)	≥ 0.1%	≥ 0.01%	
Mutagenic category 2 (H341)	≥ 1%	≥ 0.1%	
Reproductive toxicity, categories 1A and 1B (H360)	≥ 0.3%	≥ 0.03%	
Reproductive toxicity, category 2 (H361)	≥ 2%	≥ 0.3%	
Reproductive toxicity effects on or through breastfeeding (H362)	≥ 0.3%	≥ 0.03%	
Endocrine disruptors 1, 2	≥ 0.1%	≥ 0.01%	
PBT and/or vPvB ³	≥ 0.1%	≥ 0.01%	
Skin sensitizers (H317)	≥ 1%	≥ 0.1%	
Respiratory sensitizers (H334)	≥ 0.2%	≥ 0.02%	
Hazardous to aquatic environments, chronic category 1 (H410)	≥ 2%	≥ 0.25%	
Ozone depleting substances (EUH 059 and H420)	≥ 0.1%	≥ 0.01%	
Acute toxicity category 1 (H300, H310, H330, H301, H311 and/or H331)	≥ 0.1%	≥ 0.01%	
Acute toxicity category 2 (H300, H310, H330, H301, H311 and/or H331)	≥ 1%	≥ 0.1%	
Acute toxicity category 3 (H300, H310, H330, H301, H311 and/or H331)	≥ 2%	≥ 1%	
Pure or compounds of cadmium (Cd)	≥ 0.01%	≥ 0.001%	
Pure or compounds of lead (Pb)	≥ 0.1%	≥ 0.01%	
Pure or compounds of mercury (Hg)	Contamination ≥ 2.5 mg/kg (ppm) of active additives must always be reported.		
Endocrine disruptors (EDS list)	≥ 0.1%	≥ 0.01%	
Endocrine disruptors (SIN list)		≥ 0.01%	
PBT, vPvB (SIN list)	≥ 0.1%	≥ 0.01%	
Candidate List	≥0.1%*	≥ 0.01%	
Other classifications or unclassified substances and material	≥ 2%	≥ 2%	

^{*}Substances on the Candidate List have to be reported at component level.

Descriptions of material

Substances should be reported with their CAS- or EC number. Exemptions for certain material can be performed in accordance with the following instructions.

Metals should always be reported together with their alloy number. Alternatively, substances comprising more than 0.01% of the alloy has to be specified in the documentation.

Plastics and rubber materials should be reported together with their name so that it is clearly which monomers that are included, for example, acrylonitrile butadiene styrene (ABS), polyethylene (PE), etc. Additives that have not formed polymers should always be reported in accordance with Table 5 (for example pigments, plasticizers, stabilizers, etc.). BVB always requires that compounds used as plasticizers is declared for PVC plastics ($\geq 2\%$).

Plastics/polymers with descriptions in line with the following list are accepted without specification of monomers.

- Polycarbonate (pertains to bisphenol A based polycarbonates)
- Polyester (monomers must be specified for halogenated polyesters)
- Polyurethane (monomers must be specified for halogenated polyurethanes)
- Fiberglass reinforced epoxy resin laminates FR4 (pertains to tetrabromobisphenol A based polymers)

Other materials with the following descriptions are accepted without clarification or detailed description of their components as the materials normally consist of:

- Glass
- Concrete

Examples of designations of plastics/polymers and other material descriptions that require further clarification are:

- Dispersion polymerization
- Copolymer
- Thermoplastic elastomers (TPE)
- Thermoplastics
- MS polymers
- Mineral fillers

References can be given for composite products to other products (subcomponents) that have been assessed in BVB's system and which have been provided with a BVB ID.

Complex products can be referred to another product (subcomponent), which are estimated in BVB's systems and provided with BVB ID.