

SHAH01460791 **Test Report** Number:

08 Jul, 2022 Applicant: Date:

MINDIAN ELECTRIC CO., LTD.

MALUJIAO INDUSTRIZAL ZONE, BEIBAIXIANG TOWN, YUEQING, ZHEJIANG PROVINCE, CHINA

325603

KEN Attn:

Sample Description:

One(1) group of submitted sample said to be:

Item Name **PV Surge Protection Device**

MD1-40;MDSP-600;MD1-PV;MDSP-1000 Item No.

China Country Of Origin

Tests Conducted:

As requested by the applicant, for details refer to attached page(s).

Conclusion:

Tested Samples Standard Result

Screened components of Restriction of the use of certain hazardous substance in **Pass**

electrical and electronic equipment(RoHS Directive Submitted Sample

2011/65/EU and (EU) 2015/863)

Tested component(s) of submitted

EU REACH Regulation No 1907/2006 Article 33(1) sample(s)

Obligation to provide information of safe use (see

REACH and Waste Framework Directive (WFD)

requirement in report for details)

To be continued

See test conducted

Authorized By:

Intertek Testing Services Ltd. Zhejiang

Peter Chen General Manager









Tests Conducted

1. Certain Hazardous Substance in Electrical and Electronic Equipment

Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and bromine (Br) content were measured with reference to IEC 62321-3-1 Edition 1.0:2013 by XRF spectroscopy and chemical confirmation test for RoHS restricted substances. And Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs) and Phthalates content were determined by Gas Chromatographic-Mass Spectrometric (GC-MS).

(A) RESULTS:

Part No.	Screened Components	Refer Information	Items	XRF Results	Screened Results (phthalates)	Chemical Confirmation Result (mg/kg)	Conclusion On ROHS
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
1	GRAY PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	
			BBP	NA	Р	1	
			DBP	INA	Р	1	
			DIBP		Р	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
2	GRAY PLASTIC		Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	
		BBP	NA NA	Р	1		
			DBP	I NA	Р	1	
			DIBP		Р	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
3	WHITE PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	1
			BBP	NA NA	Р	1	
			DBP	INA	Р	1	
			DIBP		Р	1	



1000	s Conducted						
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
4	RED PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	
			BBP	NI A	Р	1	
			DBP	NA	Р	1	
			DIBP		Р	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
5	GREEN PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	
			BBP	NIA.	Р	1	
			DBP	NA	Р	1	
			DIBP		Р	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
6	GRAY PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	
			BBP	NA	Р	1	
			DBP	INA	Р	1	
			DIBP		Р	1	
7	TRANSPARENT PLASTIC	1	Cd	Р		1	PASS
	ILACIIO		Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
			Br	Р		1	
			DEHP	NA	Р	1	
			BBP		Р	1	



DBP
S
Pb
Hg
S
Br
DEHP BBP NA P /
BBP
DBP
DBP
SILVERY METAL
Pb P NA
Hg
9 SILVERY METAL / Br NA / PASS DEHP NA / PASS DBP NA / NA / DBP NA / DIBP NA /
9 SILVERY METAL / Br NA / PASS DEHP
DEHP
BBP NA / DBP NA / DIBP NA /
DBP
DBP NA
Cd P /
Pb P /
Hg P NA /
Cr P /
10 SILVERY METAL / Br NA / PASS
DEHP NA /
BBP NA /
DBP NA NA /
DIBP NA /
11 METAL / Cd P / PASS
Pb P /
Hg P NA /
Cr X Negative



1650	s Conducted						
			DEHP		NA	1	
			BBP	NA	NA	1	
			DBP	INA	NA	1	
			DIBP		NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Х		Negative	
12	METAL (SCREW)	1	Br	NA		1	PASS
			DEHP		NA	1	
			BBP	Ī	NA	1	
			DBP	NA	NA	1	
			DIBP		NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Х		Negative	
13	METAL (SPRING)	1	Br	NA		1	PASS
			DEHP		NA	1	
			BBP		NA	1	
			DBP	- NA	NA	1	
			DIBP		NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
14	SILVERY METAL	1	Br	NA		1	PASS
			DEHP		NA	1	
			BBP		NA	1	
			DBP	- NA	NA	1	
			DIBP		NA	1	
15	SOLDERING TIN	1	Cd	Р	NA	1	PASS#1
			Pb	F		7.30*10 ^{^5} ppm	
			Hg	Р		1	
				•			



Cr P	1680	s Conducted	I	I		T	T	
DEHP BBP NA				Cr	Р		1	
BBP DBP DBP				Br	NA		1	
DBP				DEHP		NA	1	
DBP				BBP	NΙΔ	NA	1	
Cd P				DBP	INA	NA	1	
16				DIBP		NA	1	
Hg				Cd	Р		1	
16 SILVERY METAL / Br NA				Pb	Р		1	
16 SILVERY METAL				Hg	Р	NA	1	
DEHP BBP NA				Cr	Р		1	
BBP DBP NA	16	SILVERY METAL	1	Br	NA		1	PASS
DBP				DEHP		NA	1	1
DBP				BBP	1	NA	1	
17 SOLDERING TIN				DBP	- NA	NA	1	_
Pb F Hg P NA				DIBP		NA	1	
Hg				Cd	Р		1	
17 SOLDERING TIN				Pb	F		4.20*10 ^{^5} ppm	
17 SOLDERING TIN				Hg	Р	NA	1	
DEHP NA				Cr	Р		1	
BBP NA	17	SOLDERING TIN	1	Br	NA		1	PASS#1
DBP				DEHP		NA	1	
DBP				BBP	NIA.	NA	1	
18 PIEZORESISTOR				DBP	INA	NA	1	
Pb P NA				DIBP		NA	1	
Hg				Cd	Р		1	
18 PIEZORESISTOR				Pb	Р		1	
18 PIEZORESISTOR / Br P / PASS DEHP P / P / BBP NA P / DBP NA P /				Hg	Р	NA	1	
DEHP P / BBP NA P / DBP NA P /				Cr	Р		1	
BBP NA P / DBP / /	18	PIEZORESISTOR	1	Br	Р		1	PASS
DBP NA P /				DEHP		Р	1	
DBP P /				BBP	NIA	Р	1	
DIBP P /				DBP	I NA	Р	1	
				DIBP	1	Р	1	1
19 WHITE PLASTIC / Cd P NA / PASS	19	WHITE PLASTIC	1	Cd	Р	NA	1	PASS



Pb	lest	s Conducted	T	T	1	T		T
Cr				Pb	Р		1	
Br X PBB=ND PBDE=ND				Hg	Р		1	
DEHP BBP NA				Cr	Р		1	
BBP DBP DBBP D				Br	X		PBB=ND PBDE=ND	
DBP				DEHP		Р	1	
DBP				BBP	NIA	Р	1	
20 WHITE PLASTIC Cd P Pb P				DBP	INA	Р	1	
Pb				DIBP		Р	1	
Hg				Cd	Р		1	
Cr				Pb	Р		1	
20				Hg	Р	NA	1	
DEHP BBP NA				Cr	Р		1	
BBP DBP DBP P	20	WHITE PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
DBP DIBP P				DEHP		Р	1	
DBP				BBP	NIA	Р	1	
Cd P				DBP	INA	Р	1	
Pb				DIBP		Р	1	
21 RED PLASTIC Hg				Cd	Р		1	
RED PLASTIC				Pb	Р		1	
RED PLASTIC				Hg	Р	NA	1	
DEHP NA P /				Cr	Р		1	
BBP NA P /	21	RED PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
DBP				DEHP		Р	1	
DBP				BBP	NIA.	Р	1	
Cd P				DBP	INA	Р	1	
Pb P Hg P Cr P Br X DEHP NA BBP P / // // // // // // // // //				DIBP		Р	1	
Hg P NA / Cr P / Br X PBB=ND PBDE=ND DEHP NA P / BBP P /	22	WHITE PLASTIC	1	Cd	Р		1	PASS
Cr P / Br X PBB=ND PBDE=ND DEHP NA P / BBP P /				Pb	Р		1	
Br X PBB=ND PBDE=ND DEHP NA P / BBP P /				Hg	Р	NA	1	
DEHP NA P / BBP P /				Cr	Р		1	
BBP P /				Br	Х		PBB=ND PBDE=ND	
				DEHP	NA	Р	1	
DBP P /				BBP		Р	1	
				DBP		Р	/	



1	rest	s Conducted	T	I	I	T	T	1
234 WHITE PLASTIC				DIBP		Р	1	
23				Cd	Р		1	
23 WHITE PLASTIC				Pb	Р		1	
23				Hg	Р	NA	1	
DEHP BBP DEHP DBP DEHP DBP DEHP DBP DBP DEHP DBP DBP DEHP DBP DBP DEHP DBP DBP DEHP DBP DEHP DBP DEHP DBP DBP DEHP DBP DBP DEHP DEHP				Cr	Р		1	
BBP	23	WHITE PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
DBP				DEHP		Р	1	
DBP DIBP P				BBP	NIA.	Р	1	
Cd				DBP	INA	Р	1	
Pb P Hg P NA				DIBP		Р	1	
Part				Cd	Р		1	
A BLACK PLASTIC				Pb	Р		1	
BLACK PLASTIC				Hg	Р	NA	1	
DEHP BBP NA				Cr	Р		1	
BBP NA	24	BLACK PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
DBP				DEHP		Р	1	
DBP				BBP	NIA	Р	1	
25-1 GREEN PLASTIC				DBP	INA	Р	1	
25-1 GREEN PLASTIC Pb				DIBP		Р	1	
25-1 GREEN PLASTIC				Cd	Р		1	
25-1 GREEN PLASTIC Or P				Pb	Р		1	
25-1 GREEN PLASTIC				Hg	Р	NA	1	
DEHP HBBP NA				Cr	Р		1	
BBP	25-1	GREEN PLASTIC	1	Br	Р		1	PASS
DBP				DEHP		Р	1	
DBP P / DIBP P / DIBP P / 25-2 METAL (PINS) / Cd P / Pb P / Hg P NA / Cr P / Br NA /				BBP	NIA.	Р	1	
25-2 METAL (PINS)				DBP	INA	Р	1	
Pb P Hg P Cr P Br NA /				DIBP		Р	1	
Hg P NA / Cr P / Br NA /	25-2	METAL (PINS)	1	Cd	Р		1	PASS
Cr P / Br NA /				Pb	Р		1	
Br NA /				Hg	Р	NA	1	
				Cr	Р		1	
DEHP NA NA /				Br	NA		1	
				DEHP	NA	NA	1	



BBP DBP DBP NA	Test	s Conducted	T	1	1	T		
DIBP				BBP		NA	1	
26-1 SILVERY METAL (JUMPER)				DBP		NA	1	
26-1 SILVERY METAL (JUMPER) (MICROSWITCH) F				DIBP		NA	1	
SILVERY METAL (JUMPER) (MICROSWITCH)				Cd	Р		1	
26-1 SILVERY METAL (JUMPER) (MICROSWITCH)				Pb	Р		1	
26-1 SILVERY METAL (JUMPER) (MICROSWITCH) Br NA				Hg	Р	NA	1	
26-1 (JUMPER)		SII VERV METAI		Cr	Р		1	
26-2 RED PLASTIC BUTTON DEHP DIBP NA	26-1	(JUMPER)	1	Br	NA		1	PASS
DBP		(MICROSWITCH)		DEHP		NA	1	
26-2 RED PLASTIC BUTTON Cd P				BBP		NA	1	
26-2 RED PLASTIC BUTTON Pb P NA				DBP	NA NA	NA	1	
26-2 RED PLASTIC BUTTON Pb				DIBP		NA	1	
26-2 RED PLASTIC BUTTON Hg				Cd	Р		1	
26-2 RED PLASTIC BUTTON Cr P				Pb	Р		1	
26-2 RED PLASTIC BUTTON Br P				Hg	Р	NA	1	
26-3 BUTTON				Cr	Р		1	
DEHP BBP NA	26-2		1	Br	Р		1	PASS
26-3 BLACK PLASTIC SHELL DBP		2011011		DEHP		Р	1	
DBP				BBP	, NA	Р	1	
26-3 BLACK PLASTIC SHELL				DBP	NA NA	Р	1	
26-3 BLACK PLASTIC SHELL Pb				DIBP		Р	1	
26-3 BLACK PLASTIC SHELL Hg				Cd	Р		1	
26-3 BLACK PLASTIC SHELL / Br X PBB=ND PBDE=ND PASS DEHP				Pb	Р		1	
26-3 BLACK PLASTIC SHELL / Br X PBB=ND PBDE=ND PASS DEHP				Hg	Р	NA	1	
26-3 SHELL				Cr	Р		1	
DEHP NA	26-3		1	Br	Х		PBB=ND PBDE=ND	PASS
DBP NA P / DIBP P / DIBP P / 26-4 WHITE PLASTIC SUPPORT / Cd P NA / PASS Pb P / Hg P / I / PASS		2		DEHP		Р	1	
DBP				BBP	NIA	Р	1	
26-4 WHITE PLASTIC / Cd P NA / PASS Pb P / Hg P /				DBP	INA	Р	1	
SUPPORT				DIBP		Р	1	
Pb P / Hg P	26-4		1	Cd	Р	NA	1	PASS
		SUFFURI		Pb	Р		1	
Cr P /				Hg	Р		1	
				Cr	Р		1	



Tests Conducted

Test	s Conducted		T	1	Т	T	Г
			Br	Р		1	
			DEHP		Р	1	
			BBP	NA	Р	1	
			DBP	INA	Р	1	
			DIBP		Р	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
26-5	METAL (CONTACT CHIP)	1	Br	NA		1	PASS
	Orm)		DEHP		NA	1	
			BBP	1	NA	1	
			DBP	NA NA	NA	1	
			DIBP	-	NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
26-6	METAL (PINS)	1	Br	NA		1	PASS
			DEHP		NA	1	•
			BBP	1	NA	1	
			DBP	NA NA	NA	1	
			DIBP	-	NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
27	PCB BOARD	1	Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	
			BBP	1	Р	1	
			DBP	NA NA	Р	1	
			DIBP	1	Р	1	1
28	SOLDERING TIN	1	Cd	Р	NA	1	PASS#1
			Pb	F		8.01*10^4 ppm	
			1	1	I	l	l

(N)



Tests Conducted

			Hg	Р		1	
			Cr	Р		1	
			Br	NA		1	
			DEHP		NA	1	
			BBP	NA	NA	1	
			DBP	INA	NA	1	
			DIBP		NA	1	
			Cd	Р		1	
			Pb	Р		1	
			Hg	Р	NA	1	
			Cr	Р		1	
29	BLUE PLASTIC	1	Br	Х		PBB=ND PBDE=ND	PASS
			DEHP		Р	1	
			BBP	NA	Р	1	
			DBP	INA	Р	1	
			DIBP		Р	1	

P = Pass (Below the lower screening limits of table (B1 or B2))

X = Inconclusive result (Further chemical test was suggested (see table (B1 or B2).)

F = Fail (Exceeded the upper screening limits of table (B1))

NA = Not applicable

ND = Not detected

μg/cm² = Microgram per square centimeter

NT = Not tested

Negative = The Cr (VI) concentration is less than 0.10 µg/cm². The sample is negative for Cr (VI).

Inconclusive = The Cr (VI) concentration is between 0.10 μ g/cm² and 0.13 μ g/cm² . The result is considered to be inconclusive. Unavoidable coating variations may influence the determination.

Positive = The sample is positive for Cr (VI) is based on visual comparison only. Sample solution is significantly more intense than the 0.13 µg/cm² equivalent comparison standard. No colorimetric measurement was performed.

Remark:

(#1) = As claimed by the declaration submitted from the applicant / supplier of applicant, the Lead content of the component comes from the constituent of high melting temperature type solders (i.e. Lead-based alloys containing 85% by weight or more Lead) only. According to EU RoHS Directive (2011/65/EU), Lead in high melting temperature type solders of the component can be exempted.

(B) Screening Limits

(B1) XRF Screening Limits in mg/kg for Regulated Elements in Various Matrices (mg/kg):

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	P ≤70 < X < 130 ≤ F	P ≤ 70 < X < 130 ≤ F	P ≤ 70 < X < 150 ≤ F
Pb	P ≤ 700 < X < 1300≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500< X < 1500 ≤ F

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Tests Conducted

Hg	P ≤ 700< X < 1300 ≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500 < X < 1500 ≤ F
Cr	P ≤ 700< X	P ≤ 700 < X	P ≤ 500 < X
Br	P ≤ 300< X	Not applicable	P ≤ 250 < X

(B2) Preliminary screening test will used for phthalates, if the results exceed the warning area in the following table, further chemical methods will conduct to confirm the exact content by GC/MS. (mg/kg)

Phthalates	Polymer
Bis(2-ethylhexyl)phthalate(DEHP)	P ≤600 <x< td=""></x<>
Butyl benzyl phthalate(BBP)	P ≤600 <x< td=""></x<>
Dibutyl phthalate(DBP)	P ≤600 <x< td=""></x<>
Diisobutyl phthalate(DIBP)	P ≤600 <x< td=""></x<>

(C) Estimated Detection Limits in mg/kg for Regulated Elements in Various Matrices (mg/kg):

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br 200		Not applicable	200

Disclaimers:

This XRF Screening and Chemical Confirmation Test Report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF Screening and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening and Chemical Confirmation Test Report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis is required to obtain quantitative data.

(D) Chemical Test Methods:

(B) Griorinical Tool Motifica			
Testing Item	Testing Method	Reporting Limit	
Cadmium (Cd) Content	With reference to IEC 62321-5 Edition 1.0: 2013, by acid digestion and determined by ICP - OES	2 mg/kg	
Lead (Pb) Content	With reference to IEC 62321-5 Edition 1.0: 2013, by acid digestion and determined by ICP - OES	2 mg/kg	
Mercury (Hg) Content	With reference to IEC 62321-4 Edition 1.1: 2017, by acid digestion and determined by ICP - OES	∠ mg/kg	
Chromium (VI) (Cr ⁶⁺) Content	With reference to IEC 62321-7-1 Edition 1.0:2015, by boiling water extraction and determined by UV-VIS spectrophotometer	Positive(>0.13 g/cm ²) / Negative(<0.10 g/cm ²) / Inconclusive(0.10 g/cm ²	

(n)



Tests Conducted

Testing Item	Testing Method	Reporting Limit
		0.13 g/cm ²)
Chromium (VI)(Cr ⁶⁺) Content	With reference to IEC 62321-7-2 Edition 1.0:2017, by alkaline digestion and determined by UV-VIS Spectrophotometer	10 mg/kg
Polybrominated Biphenyls (PBBs) & Polybrominated Diphenyl Ethers (PBDEs) Content	With reference to IEC 62321-6 Edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	5 mg/kg
Phthalates (DEHP, BBP, DBP, DIBP) Content	With reference to IEC 62321-8 Edition 1.0:2017,by solvent extraction and determined by GC/MS	100mg/kg

(E) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr ⁶⁺)	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Phthalates(DEHP, BBP, DBP, DIBP)	0.1% (1000 mg/kg)

The above limits were quoted from 2011/65/EU and (EU) 2015/863 for homogeneous material.

Screened Components: PV Surge Protection Device

Date sample received: May 30, 2022

Testing period: May 30, 2022 to Jun 28, 2022

2. (I) SVHC Testing Results

By a combination of Inductively Coupled Argon Plasma Spectrometry, Gas Chromatography – Mass Spectrometry, Liquid Chromatography - Mass Spectrometry, UV-VIS Spectrophotometer and High-Performance Liquid Chromatography.

No	Chemical Substance	CAS No.	Results % (w/w)	
<u>No.</u>		CAS NO.	GROUP 5	
185	Lead	7439-92-1	See individual test results	
	Other tested SVHCs in Chemical list		ND	

No.	Chemical Substance	CAS No.	Results % (w/w)			
			GROUP 5			
			(15)	(17)	(28)	
185	Lead	7439-92-1	73.0*	42.0*	8.01*	

(N)



Tests Conducted

No.	Chemical Substance	CAS No.	Results % (w/w)		
	<u>Chemical Substance</u>		GROUP1	GROUP2	
	Tested SVHCs in Chemical list		ND	ND	

No.	Chemical Substance	CAS No.	Results % (w/w)	
	<u>Chemical Substance</u>		GROUP3	GROUP4
	Tested SVHCs in Chemical list		ND	ND

No	Chemical Substance	CAS No	Results % (w/w)	
No.	<u>Chemical Substance</u>	CAS No.	GROUP6	
	Tested SVHCs in Chemical list		ND	

SVHC		=	Subs	Substance of very high concern			
ND	=	No	ot Dete	ected	d (less than reporting limit)		
Reporti	Reporting limit		=	0.010%(w/w)			
*		=	Exceeded requirement				

As applicant's requirement, materials were screened in composite testing.

(${
m II}$) Tested groups: See component list in the last section of this report.

(III) Tested SVHC Chemical list:

No.	Chemical Substance CAS No. No. Chemical Substance				CAS No.
1	Cobalt Dichloride Δ	7646-79-9	2	Diarsenic Pentaoxide Δ	1303-28-2
3	Diarsenic Trioxide Δ	1327-53-3	4	Lead Hydrogen Arsenate ∆	7784-40-9
5	Triethyl Arsenate Δ	15606-95-8	6	Sodium Dichromate Δ	7789-12-0, 10588-01-9
7	Bis (Tributyltin) Oxide (TBTO)	56-35-9	8	Anthracene	120-12-7
9	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	10	Hexabromocyclododecane (HBCDD) and All Major Diastereoisomers Identified (α- HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4 and 3194-55-6 (134237-50-6, 134237-51-7, 134237-52-8)
11	5-Tert-Butyl-2,4,6-Trinitro-m- Xylene (Musk Xylene)	81-15-2	12	Bis (2-Ethylhexyl) Phthalate (DEHP)	117-81-7
13	Dibutyl Phthalate (DBP)	84-74-2	14	Benzyl Butyl Phthalate (BBP)	85-68-7
15	Short Chain Chlorinated Paraffins (C ₁₀₋₁₃)	85535-84-8	16	Lead Chromate Δ	7758-97-6
17	Lead Chromate Molybdate Sulphate Red (C.I. Pigment Red 104) Δ	12656-85-8	18	Lead Sulfochromate Yellow (C.I. Pigment Yellow 34) Δ	1344-37-2
19	Tris (2-Chloroethyl) Phosphate	115-96-8	20	2,4-Dinitrotoluene	121-14-2
21	Diisobutyl Phthalate (DIBP)	84-69-5	22	Coal Tar Pitch, High Temperature	65996-93-2

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resis	Conducted	<u> </u>		<u>, </u>	
23	Anthracene Oil	90640-80-5	24	Anthracene Oil, Anthracene Paste, Distn. Lights	91995-17-4
25	Anthracene Oil, Anthracene Paste, Anthracene Fraction	91995-15-2	26	Anthracene Oil, Anthracene-low	90640-82-7
27	Anthracene Oil, Anthracene Paste	90640-81-6	28	Acrylamide	79-06-1
29	Boric Acid Δ	11113-50-1 Anhydrous Δ		1330-43-4, 12179-04-3, 1303-96-4	
31	Tetraboron Disodium Heptaoxide, Hydrate ∆	12267-73-1	32	Sodium Chromate Δ	7775-11-3
33	Potassium Chromate Δ	7789-00-6	34	Ammonium Dichromate Δ	7789-09-5
35	Potassium Dichromate Δ	7778-50-9	36	Trichloroethylene	79-01-6
37	2-Methoxyethanol	109-86-4	38	2-Ethoxyethanol	110-80-5
39	Cobalt Sulphate Δ	10124-43-3	40	Cobalt Dinitrate Δ	10141-05-6
41	Cobalt Carbonate Δ	513-79-1	42	Cobalt Diacetate Δ	71-48-7
43	Chromium Trioxide Δ	1333-82-0	44	Chromic Acid Δ Dichromic Acid Δ Oligomers of Chromic Acid and Dichromic Acid Δ	7738-94-5 13530-68-2
45	Strontium Chromate∆	7789-06-2	46	2-ethoxyethyl acetate (2-EEA)	111-15-9
47	1,2-Benzenedicarboxylic acid, di-C ₇₋₁₁ -branched and linear alkyl esters (DHNUP)	68515-42-4	48	Hydrazine	7803-57-8 302-01-2
49	1-methyl-2-pyrrolidone	872-50-4	50	1,2,3-trichloropropane	96-18-4
51	1,2-Benzenedicarboxylic acid, di-C ₆₋₈ -branched alkyl esters, C ₇ -rich (DIHP)	71888-89-6	52	Lead dipicrate∆	6477-64-1
53	Lead styphnate∆	15245-44-0	54	Lead azide; Lead diazide∆	13424-46-9
55	Phenolphthalein	77-09-8	56	2,2'-dichloro-4,4'- methylenedianiline (MOCA)	101-14-4
57	N,N-dimethylacetamide (DMAC)	127-19-5	58	Trilead diarsenate∆	3687-31-8
59	Calcium arsenate∆	7778-44-1	60	Arsenic acid∆	7778-39-4
61	Bis(2-methoxyethyl) ether	111-96-6	62	1,2-Dichloroethane	107-06-2
63	4-(1,1,3,3- tetramethylbutyl)phenol, (4-tert- Octylphenol)	140-66-9	64	2-Methoxyaniline; o-Anisidine	90-04-0
65	Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	66	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4
67	Pentazinc chromate octahydroxide∆	49663-84-5	68	Potassium hydroxyoctaoxodizincate di- chromate∆	11103-86-9
69	Dichromium tris(chromate)Δ	24613-89-6	70	Aluminosilicate Refractory Ceramic Fibres Δ	(Index No. 650-017-00-8)
71	Zirconia Aluminosilicate Refractory Ceramic Fibres Δ	(Index No. 650-017- 00-8)	72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	74	Diboron trioxide∆	1303-86-2
75	Formamide	75-12-7	76	Lead(II) bis(methanesulfonate) Δ	17570-76-2
77	TGIC (1,3,5- tris(oxiranylmethyl)-1,3,5- triazine-2,4,6(1H,3H,5H)- trione)	2451-62-9	78	β-TGIC (1,3,5-tris[(2S and 2R)- 2,3-epoxypropyl]-1,3,5-triazine- 2,4,6-(1H,3H,5H)-trione)	59653-74-6



resis	s Conducted				
79	4,4'- bis(dimethylamino)benzopheno ne (Michler's ketone)	90-94-8	80	N,N,N',N'-tetramethyl-4,4'- methylenedianiline (Michler's base)	101-61-1
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	548-62-9	82	[4-[[4-anilino-1-naphthyl][4- (dimethylamino)phenyl]methylen e]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202- 027-5) or Michler's base (EC No. 202-959-2)]	2580-56-5
83	α,α-Bis[4- (dimethylamino)phenyl]-4 (phenylamino)naphthalene-1- methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202- 959-2)]	6786-83-0	84	4,4'-bis(dimethylamino)-4"- (methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	561-41-1
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	86	Pentacosafluorotridecanoic acid	72629-94-8
87	Tricosafluorododecanoic acid	307-55-1	88	Henicosafluoroundecanoic acid	2058-94-8
89	Heptacosafluorotetradecanoic acid	376-06-7	90	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
91	Cyclohexane-1,2-dicarboxylic anhydride [1] cis-cyclohexane-1,2-dicarboxylic anhydride [2] trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry].	85-42-7 13149-00-3 14166-21-3	92	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	25550-51-0 19438-60-9 48122-14-1 57110-29-9
93	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB-and well-defined substances which include any of the individual isomers or a combination thereof]		94	4-(1,1,3,3- tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	



95	Methoxyacetic acid	625-45-6	96	N,N-dimethylformamide	68-12-2	
97	Dibutyltin dichloride (DBTC) Δ	683-18-1	98	Lead monoxide (Lead oxide) Δ	1317-36-8	
99	Orange lead (Lead tetroxide) Δ	1314-41-6	100	Lead bis(tetrafluoroborate) Δ	13814-96-5	
101	Trilead bis(carbonate)dihydroxide Δ	1319-46-6	102	Lead titanium trioxide∆	12060-00-3	
103	Lead titanium zirconium oxide∆	12626-81-2	104	Silicic acid, lead salt Δ	11120-22-2	
105	Silicic acid (H2Si2O5), barium salt (1:1), lead-doped∆ [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	68784-75-8	-75-8 106 1-bromopropane (n-propyl bromide)		106-94-5	
107	Methyloxirane (Propylene oxide)	75-56-9	108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	
109	Diisopentylphthalate (DIPP)	605-50-5	110	N-pentyl-isopentylphthalate	776297-69-9	
111	1,2-diethoxyethane	629-14-1	112	Acetic acid, lead salt, basic∆	51404-69-4	
113	Lead oxide sulfate∆	12036-76-9	114	[Phthalato(2-)]dioxotrilead∆	69011-06-9	
115	Dioxobis(stearato)trilead∆	12578-12-0	116	Fatty acids, C16-18, lead salts∆	91031-62-8	
117	Lead cynamidate∆	20837-86-9	118	Lead dinitrate∆	10099-74-8	
119	Pentalead tetraoxide sulphate∆	12065-90-6	120	Pyrochlore, antimony lead yellow∆	8012-00-8	
121	Sulfurous acid, lead salt, dibasic∆	62229-08-7	122	Tetraethyllead∆	78-00-2	
123	Tetralead trioxide sulphate∆	12202-17-4	124	Trilead dioxide phosphonate∆	12141-20-7	
125	Furan	110-00-9	126	Diethyl sulphate	64-67-5	
127	Dimethyl sulphate	77-78-1	128	3-ethyl-2-methyl-2-(3- methylbutyl)-1,3-oxazolidine	143860-04-2	
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	130	4,4'-methylenedi-o-toluidine	838-88-0	
131	4,4'-oxydianiline and its salts	101-80-4	132	4-aminoazobenzene	60-09-3	
133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	134	6-methoxy-m-toluidine (p- cresidine)	120-71-8	
135	Biphenyl-4-ylamine	92-67-1	136	o-aminoazotoluene [(4-o-tolylazo-o-toluidine])	97-56-3	
137	o-toluidine	95-53-4	138	N-methylacetamide	79-16-3	
139	Cadmium∆	7440-43-9	140	Cadmium oxide∆	1306-19-0	
141	Dipentyl phthalate (DPP)	131-18-0	142	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]		



Tests	Tests Conducted					
143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	
145	Cadmium sulphide∆ 1306-23-6 146 4,4'-diylbis(azo)]t aminonaphthaler (C.I. Direct Red 2		Disodium 3,3'-[[1,1'-biphenyl]- 4,4'-diylbis(azo)]bis(4- aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0		
147	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	148	Dihexyl phthalate (DnHP)	84-75-3	
149	Imidazolidine-2-thione (2- imidazoline-2-thiol)	96-45-7	150	Lead di(acetate) Δ	301-04-2	
151	Trixylyl phosphate	25155-23-1	152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear (Diisohexyl phthalate(DIHP))	68515-50-4	
153	Cadmium chloride∆	10108-64-2	154	Sodium perborate; perboric acid, sodium salt∆		
155	Sodium peroxometaborate∆	Sodium peroxometaborate∆ 7632-04-4		2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)	25973-55-1	
157	2-berizottiazoi-z-yi-4,0-di-tert- 3846-71-7 158 7-oxo-8-oxa-3,5-dithi		2-ethylhexyl 10-ethyl-4,4-dioctyl- 7-oxo-8-oxa-3,5-dithia-4- stannatetradecanoate (DOTE)	15571-58-1		
159	Cadmium fluoride∆	fluoride∆ 7790-79-6 160 Cadmium sulphate∆		10124-36-4; 31119-53-6		
161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	15571-58-1; 27107-89-7	162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5 68648-93-1	
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	117933-89-8	164	1,3-Propanesultone	1120-71-4	
165	2,4-di-tert-butyl-6-(5- chlorobenzotriazol-2-yl) phenol (UV-327)	3864-99-1	166	2-(2H-Benzotriazol-2-yl)-4-(tert- butyl)-6-(sec-butyl)phenol (UV- 350)	36437-37-3	
167	Nitrobenzene	98-95-3	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	170	4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7	
171	Nonadecafluorodecanoic acid	335-76-2	172	4-heptylphenol, branched and		



Tests Conducted

Tests	s Conducted				
	(PFDA) and its sodium and ammonium salts	3830-45-3 3108-42-7		linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB-and well-defined substances which include any of the individual isomers or a combination thereof]	
173	p-(1,1 dimethylpropyl)phenol	80-46-6	174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4
175	Benz[a]anthracene	56-55-3	176	Cadmium nitrate∆	10325-94-7
177	Cadmium carbonate∆	513-78-0	178	Cadmium hydroxide∆	21041-95-2
179	Chrysene	218-01-9	180	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1. 16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"TM) [covering any of its individual anti- and syn-isomers or any combination thereof]	
181	Reaction products of 1,3,4- thiadiazolidine-2,5-dithione, formaldehyde and 4- heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]		182	Octamethylcyclotetrasiloxane (D4)	556-67-2
183	Decamethylcyclopentasiloxane (D5)	541-02-6	184	Dodecamethylcyclohexasiloxane (D6)	540-97-6
185	Lead	7439-92-1	186	Disodium octaborate∆	12008-41-2
187	Benzo[ghi]perylene	191-24-2	188	Terphenyl hydrogenated	61788-32-7
189	Ethylenediamine (EDA)	107-15-3	190	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (Trimellitic anhydride) (TMA)	552-30-7
191	Dicyclohexyl phthalate (DCHP)	84-61-7	192	2,2-bis(4'-hydroxyphenyl)-4- methylpentane	6807-17-6
193	Benzo[k]fluoranthene	207-08-9	194	Fluoranthene	206-44-0
195	Phenanthrene	85-01-8	196	Pyrene	129-00-0
197	1,7,7-trimethyl-3- (phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	7,7-trimethyl-3- nenylmethylene)bicyclo[2.2.1 eptan-2-one (3-benzylidene 15087-24-8 198 4-tert-butylphene		4-tert-butylphenol (PTBP)	98-54-4
199	2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	200	2-methoxyethyl acetate	110-49-6
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	202	2-benzyl-2-dimethylamino-4'- morpholinobutyrophenone	119313-12-1
203	2-methyl-1-(4-	71868-10-5	204	Diisohexyl phthalate	71850-09-4
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Tests Conducted

resis	Conducted				
	methylthiophenyl)-2- morpholinopropan-1-one				
205	Perfluorobutane sulfonic acid (PFBS) and its salts	206 1-vinylimidazole		1072-63-5	
207	2-methylimidazole	693-98-1 208 Butyl 4-hydroxybenzoate		94-26-8	
209	Dibutylbis(pentane-2,4-dionato- O,O')tin	bis(pentane-2,4-dionato- O,O')tin 22673-19-4 210 bis(2-(2-methoxyethoxy)ethyl) ether		143-24-8	
211	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-	212	1,4-dioxane	123-91-1
213	2,2- bis(bromomethyl)propane1,3- diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo- 2,2-bis(bromomethyl)-1- propanol (TBNPA); 2,3-dibromo-1-propanol (2,3- DBPA)	3296-90-0 36483-57-5 1522-92-5 96-13-9	214	2-(4-tert- butylbenzyl)propionaldehyde and its individual stereoisomers	
215	4,4'-(1- methylpropylidene)bisphenol; (bisphenol B)	77-40-7	216	Glutaral	111-30-8
217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]		218	Orthoboric acid, sodium salt∆	13840-56-7
219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)		220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	
221	6,6'-di-tert-butyl-2,2'- methylenedi-p-cresol (DBMC)	119-47-1	222	S-(tricyclo(5.2.1.0'2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioateΔ	255881-94-8
223	Tris(2- methoxyethoxy)vinylsilane	1067-53-4			

(aa) Proposed SVHC in the draft Commission Implementing Decision of September 2021

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	No.	Chemical Substance	CAS No.	No.	Chemical Substance	CAS No.
Ī	1	Resorcinol	108-46-3			

 Δ = Determination was based on elemental analysis. The content was calculated based on assumption of worst-case.

(N)



Tests Conducted

(IV) Tested groups: See component list in the last section of this report.

Notes:

- 1. Substances of very high concern (SVHC) are classified as:
- (a) Carcinogenicity category 1A or 1B;
- (b) Germ cell mutagenicity category 1A or 1B;
- (c) Reproductive toxicity category 1A or 1B, adverse effects on sexual function and fertility or on development;
- (d) Persistent, bioaccumulative and toxic (PBT)
- (e) Very persistent and very bioaccumulative (vPvB)
- (f) Other substances for which there is scientific evidence of probable serious effects to human health or the environment which give rise to an equivalent level of concern, such as endocrine disrupters

REACH requirement:

As per Article 7 of Regulation (EC) No 1907/2006 (REACH) as amended, if a substance of very high concern (SVHC) on the Candidate List for Authorisation is present in articles above a concentration of 0.1% weight by weight (w/w) and the substance is present in those articles in quantities totalling over 1 tonne per producer or per importer per year, then the producer or importer shall notify the European Chemicals Agency (ECHA). The notifications have to be submitted no later than 6 months after the inclusion in the Candidate List. The information to be notified shall include the following:

- (a) Identity and contact details of the producer or importer;
- (b) Registration number(s), if available;
- (c) Identity of the substance;
- (d) Classification of the substance(s);
- (e) Brief description of the use(s) of the substance(s) in the article and of the uses of the article(s);
- (f) Tonnage range of the substance(s).

As per Article 31 of Regulation (EC) No 1907/2006 (REACH) as amended, the supplier of mixture not classified as hazardous according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP), shall provide the recipient at his request with a safety data sheet, where a mixture contains at least one substance on the SVHC list (Candidate List of substances of very high concern for Authorisation) and its individual concentration is of 0.1% or above by weight for non-gaseous mixtures.

As per Article 33(1) of Regulation (EC) No 1907/2006 (REACH) as amended, any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with information of safe use of the article. An article meets the requirement of Article 33(1) by default when no SVHC exceeds 0.1% weight by weight (w/w).

As per Article 33(2) of Regulation (EC) No 1907/2006 (REACH) as amended, any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) shall provide the consumer on request with information of safe use of the article, within 45 days of receipt of the request.

As per Court of Justice of the European Union Judgment in Case C-106/14, Press Release No 100/15 dated 10 September 2015, each of the articles incorporated as a component of a complex product is covered by the relevant duties to notify and provide information when they contain a substance of very high concern in a concentration above 0.1% of their mass.

Waste Framework Directive (WFD) Requirement:

As per Article 9(1)(i) of Directive 2008/98/EC on waste (WFD, Waste Framework Directive) as amended, Member States shall take measures to ensure that any supplier of an article as defined in point 33 of Article 3 of Regulation (EC) No 1907/2006 (REACH) provides the information pursuant to Article 33(1) of Regulation (EC) No 1907/2006 (REACH) to the European Chemicals Agency (ECHA) as from 5 January 2021. Any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) on the EU market is required to submit a SCIP Notification on that article to ECHA, as from 5 January 2021.

Date sample received: May 30, 2022

Testing period: May 30, 2022 to Jun 28, 2022

(n)



No.	Component Name	Material
1	GRAY PLASTIC	7. Hard Plastic
2	GRAY PLASTIC	7. Hard Plastic
3	WHITE PLASTIC	7. Hard Plastic
4	RED PLASTIC	7. Hard Plastic
5	GREEN PLASTIC	7. Hard Plastic
6	GRAY PLASTIC	7. Hard Plastic
7	TRANSPARENT PLASTIC	7. Hard Plastic
8	WHITE PLASTIC	7. Hard Plastic
9	SILVERY METAL	1. Metal
10	SILVERY METAL	1. Metal
11	METAL (TERMINAL)	1. Metal
12	METAL (SCREW)	1. Metal
13	METAL (SPRING)	1. Metal
14	SILVERY METAL	1. Metal
15	SOLDERING TIN	1. Metal
16	SILVERY METAL	1. Metal
17	SOLDERING TIN	1. Metal
18	PIEZORESISTOR	5. Electronic Element(Plastic/Metal)
19	WHITE PLASTIC	7. Hard Plastic
20	WHITE PLASTIC	7. Hard Plastic
21	RED PLASTIC	7. Hard Plastic
22	WHITE PLASTIC	7. Hard Plastic
23	WHITE PLASTIC	7. Hard Plastic
24	BLACK PLASTIC	7. Hard Plastic
25-1	GREEN PLASTIC	7. Hard Plastic
25-2	METAL (PINS)	1. Metal
26-1	SILVERY METAL	1. Metal
26-2	RED PLASTIC BUTTON	7. Hard Plastic
26-3	BLACK PLASTIC SHELL	7. Hard Plastic
26-4	WHITE PLASTIC SUPPORT	7. Hard Plastic
26-5	METAL (CONTACT CHIP)	1. Metal
1	1	



Tests Conducted

26-6	METAL (PINS)	1. Metal
27	PCB BOARD	6. PCB Board
28	SOLDERING TIN	1. Metal
29	BLUE PLASTIC	7. Hard Plastic

Group No.	No.	Component No.	Component Name	Material
	1	1	GRAY PLASTIC	7. Hard Plastic
	2	2	GRAY PLASTIC	7. Hard Plastic
	3	3	WHITE PLASTIC	7. Hard Plastic
	4	4	RED PLASTIC	7. Hard Plastic
GROUP 1	5	5	GREEN PLASTIC	7. Hard Plastic
	6	6	GRAY PLASTIC	7. Hard Plastic
	7	7	TRANSPARENT PLASTIC	7. Hard Plastic
	8	8	WHITE PLASTIC	7. Hard Plastic
	9	19	WHITE PLASTIC	7. Hard Plastic
	10	20	WHITE PLASTIC	7. Hard Plastic
	1	21	RED PLASTIC	7. Hard Plastic
	2	22	WHITE PLASTIC	7. Hard Plastic
	3	23	WHITE PLASTIC	7. Hard Plastic
	4	24	BLACK PLASTIC	7. Hard Plastic
GROUP 2	5	25-1	GREEN PLASTIC	7. Hard Plastic
	6	26-2	RED PLASTIC BUTTON	7. Hard Plastic
	7	26-3	BLACK PLASTIC SHELL	7. Hard Plastic
	8	26-4	WHITE PLASTIC SUPPORT	7. Hard Plastic
	9	29	BLUE PLASTIC	7. Hard Plastic
ODOUD 0	1	18	PIEZORESISTOR	5. Electronic Element(Plastic/Metal)
GROUP 3	2	27	PCB BOARD	6. PCB Board
GROUP 4	1	9	SILVERY METAL	1. Metal
	2	10	SILVERY METAL	1. Metal
	3	11	METAL (TERMINAL)	1. Metal
	4	12	METAL (SCREW)	1. Metal
	5	13	METAL (SPRING)	1. Metal

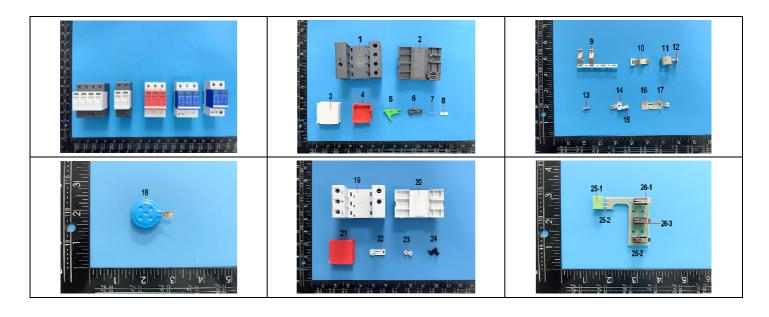
(N)



Tests Conducted

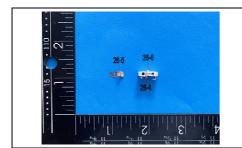
	6	14	SILVERY METAL	1. Metal
	7	16	SILVERY METAL	1. Metal
	8	25-2	METAL (PINS)	1. Metal
	9	26-1	SILVERY METAL	1. Metal
	10	26-5	METAL (CONTACT CHIP)	1. Metal
	1	15	SOLDERING TIN	1. Metal
GROUP 5	2	17	SOLDERING TIN	1. Metal
	3	28	SOLDERING TIN	1. Metal
GROUP 6	1	26-6	METAL (PINS)	1. Metal

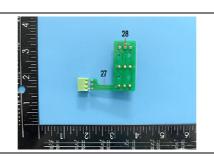
Remark: The item is accredited and subcontracted to the organization complied with ISO/IEC 17025.





Tests Conducted







End of report

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