

Certificate Of Analysis

SOLAR LIGHT MINI SPOT LIGHT



Report number **DX9300585-372488-1**

Print date: **2020-09-22**

Applicant: Koopman International
Country: The Netherlands
Article description: SOLAR LIGHT MINI SPOT LIGHT
Item number: DX9300585
Order number: 372488
Date of article received: september 11, 2020
Testing Completed: september 22, 2020
Order type: Purchase Order
EAN code: 8719987037535

Conclusion: Passed

The test results only apply to the tested specimens

Signed for and on behalf of Koopman International B.V.


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Chemist & Technologist.

Koopman International BV has a verified Bureau Veritas procedure of Laboratory Testing and a Bureau Veritas verification of REACH compliance. The test itself and the associated report is reviewed by Koopman International BV.





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Summary of tested parts.

Part(s) description:

black insulation wire
black plastic battery box
black plastic switch
blue insulation wire
chrome plastic reflector
red insulation wire
SOLDER on battery plates
SOLDER on led
SOLDER on PCB
SOLDER on solar
SOLDER on wires
transparent plastic glass
white insulation wire
WHOLE ARTICLE for GENERAL_PROD_SAFETY
(The test results for the above part(s) are found at the next pages)

	Result	Units	Spec rule	Min	Max
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Part description: black plastic battery box

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

Cadmium	0	ppm	Result <= MAX		100
Lead	100	ppm	Result <= MAX		1000
Chromium	0	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Halowax 1000 mono PCN	Not detected		Result < MAX		0,1
Halowax 1000 di PCN	Not detected		Result < MAX		0,1
Halowax 1001 tri PCN	Not detected		Result < MAX		0,1
Halowax 1013 tetra PCN	Not detected		Result < MAX		0,1
Halowax 1014 penta PCN	Not detected		Result < MAX		0,1
Halowax 1014 hexa PCN	Not detected		Result < MAX		0,1
Halowax 1051 hepta PCN	Not detected		Result < MAX		0,1
Halowax 1051 octa PCN	Not detected		Result < MAX		0,1

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chloroparaffins total	0	ppm	Result < MAX		1000
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PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK Category 3

Benzo a pyrene	Not detected		Result <= MAX		1.0
Benzo a anthracene	Not detected		Result <= MAX		1.0

	Result	Units	Spec rule	Min	Max
Chrysene	Not detected		Result <= MAX		1.0
Benzo b fluoranthene	Not detected		Result <= MAX		1.0
Benzo k fluoranthene	Not detected		Result <= MAX		1.0
Dibenz ah anthracene	Not detected		Result <= MAX		1.0
Benzo j fluoranthene	Not detected		Result <= MAX		1.0
Benzo e pyrene	Not detected		Result <= MAX		1.0
Indeno 123cd pyrene	Not detected		Result <= MAX		1.0
Benzo ghi perylene	Not detected		Result <= MAX		1.0
Acenaphthylene	Not detected		Result <= MAX		1000000
Acenaphthene	Not detected		Result <= MAX		1000000
Fluorene	Not detected		Result <= MAX		1000000
Phenanthrene	Not detected		Result <= MAX		50
Anthracene	Not detected		Result <= MAX		50
Fluoranthene	Not detected		Result <= MAX		50
Pyrene	Not detected		Result <= MAX		50
Naphthalene	Not detected		Result <= MAX		10
sum of 4 PAH	0	ppm	Result <= MAX		50
sum of 15 PAH	0	ppm	Result <= MAX		50
Anthracene oils and pastes	0	ppm	Result <= MAX		1000000
Coal tar	0	ppm	Result <= MAX		1000000

OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX		0.1
a BHC	Not detected		Result < MAX		1.0
Hexachlorobenzene	Not detected		Result < MAX		1.0
d BHC	Not detected		Result < MAX		1.0
b BHC	Not detected		Result < MAX		1.0
g BHC	Not detected		Result < MAX		1.0
Heptachlor epoxide A	Not detected		Result < MAX		1.0
Heptachlor epoxide B	Not detected		Result < MAX		1.0
Heptachlor	Not detected		Result < MAX		1.0

	Result	Units	Spec rule	Min	Max
Aldrin	Not detected		Result < MAX		1.0
Isodrin	Not detected		Result < MAX		1.0
Endrin	Not detected		Result < MAX		1.0
Endosulfan I	Not detected		Result < MAX		1.0
Endosulfan II	Not detected		Result < MAX		1.0
44 DDE	Not detected		Result < MAX		1,0
Dieldrin	Not detected		Result < MAX		1.0
44 DDD	Not detected		Result < MAX		1,0
44 DDT	Not detected		Result < MAX		1,0
Endosulfan Sulfate	Not detected		Result < MAX		1,0
Methoxychlor	Not detected		Result < MAX		1.0
Mirex	Not detected		Result < MAX		1.0
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1.0
Toxaphene	Not detected		Result < MAX		1.0
Kepone	Not detected		Result < MAX		1.0

PCB

according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1.0
Dichlorobiphenyl	Not detected		Result <= MAX		1.0
Trichlorobiphenyl	Not detected		Result <= MAX		1.0
Tetrachlorobiphenyl	Not detected		Result <= MAX		1.0
Pentachlorobiphenyl	Not detected		Result <= MAX		1.0
Hexachlorobiphenyl	Not detected		Result <= MAX		1.0
Heptachlorobiphenyl	Not detected		Result <= MAX		1.0
Octachlorobiphenyl	Not detected		Result <= MAX		1.0
Decachlorobiphenyl	Not detected		Result <= MAX		1.0

Phenols

according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 on Phenol content.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Octyl phenol	Not detected		Result <= MAX		1000000
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	Result	Units	Spec rule	Min	Max
Nonyl phenol	Not detected		Result <= MAX		1000000
Phenol, pentachloro- / PCP	Not detected		Result <= MAX		5

Phthalates

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0	ppm	Result <= MAX		1000
DBP	0	ppm	Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000
DEEP	0		Result <= MAX		1000000
DEHP	600	ppm	Result <= MAX		1000
DIH _p P	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIH _x P	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	600	ppm	Result <= MAX		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
N methylacetamide	Not detected		Result <= MAX		1000000
NN dimethylformamide	Not detected		Result <= MAX		1000000
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
123 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylenedi o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarboic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
Michlers ketone	Not detected		Result <= MAX		1000000
Michlers base	Not detected		Result <= MAX		1000000
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
Flame retardants (PBDE and PBB)					
according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.					
testing conditions: 111/54/CDV & IEC 62321					
PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	Not detected		Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Part description: transparent plastic glass

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Halowax 1000 mono PCN	Not detected		Result < MAX		0,1
Halowax 1000 di PCN	Not detected		Result < MAX		0,1
Halowax 1001 tri PCN	Not detected		Result < MAX		0,1



	Result	Units	Spec rule	Min	Max
Halowax 1013 tetra PCN	Not detected		Result < MAX		0,1
Halowax 1014 penta PCN	Not detected		Result < MAX		0,1
Halowax 1014 hexa PCN	Not detected		Result < MAX		0,1
Halowax 1051 hepta PCN	Not detected		Result < MAX		0,1
Halowax 1051 octa PCN	Not detected		Result < MAX		0,1

PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK

Benzo a pyrene	Not detected		Result <= MAX		1000000
Anthracene	Not detected		Result <= MAX		1000000
Anthracene oils and pastes	0	ppm	Result <= MAX		1000000
Coal tar	0	ppm	Result <= MAX		1000000

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chloroparaffins total	0	ppm	Result < MAX		1000
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OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX		0.1
a BHC	Not detected		Result < MAX		1.0
Hexachlorobenzene	Not detected		Result < MAX		1.0
d BHC	Not detected		Result < MAX		1.0
b BHC	Not detected		Result < MAX		1.0
g BHC	Not detected		Result < MAX		1.0
Heptachlor epoxide A	Not detected		Result < MAX		1.0
Heptachlor epoxide B	Not detected		Result < MAX		1.0
Heptachlor	Not detected		Result < MAX		1.0
Aldrin	Not detected		Result < MAX		1.0

	Result	Units	Spec rule	Min	Max
Isodrin	Not detected		Result < MAX		1.0
Endrin	Not detected		Result < MAX		1.0
Endosulfan I	Not detected		Result < MAX		1.0
Endosulfan II	Not detected		Result < MAX		1.0
44 DDE	Not detected		Result < MAX		1.0
Dieldrin	Not detected		Result < MAX		1.0
44 DDD	Not detected		Result < MAX		1.0
44 DDT	Not detected		Result < MAX		1.0
Endosulfan Sulfate	Not detected		Result < MAX		1.0
Methoxychlor	Not detected		Result < MAX		1.0
Mirex	Not detected		Result < MAX		1.0
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1.0
Toxaphene	Not detected		Result < MAX		1.0
Kepone	Not detected		Result < MAX		1.0

Phenols

according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 on Phenol content and Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Phenol, pentachloro- / PCP	Not detected		Result <= MAX		5
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PCB

according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1.0
Dichlorobiphenyl	Not detected		Result <= MAX		1.0
Trichlorobiphenyl	Not detected		Result <= MAX		1.0
Tetrachlorobiphenyl	Not detected		Result <= MAX		1.0
Pentachlorobiphenyl	Not detected		Result <= MAX		1.0
Hexachlorobiphenyl	Not detected		Result <= MAX		1.0
Heptachlorobiphenyl	Not detected		Result <= MAX		1.0
Octachlorobiphenyl	Not detected		Result <= MAX		1.0
Decachlorobiphenyl	Not detected		Result <= MAX		1.0

	Result	Units	Spec rule	Min	Max
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Reach restrictions annex 17

according to: Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DEGME	Not detected		Result <= MAX		30000
4-Nitrobiphenyl	Not detected		Result <= MAX		1000
1,4-dichloro-butene trans	Not detected		Result <= MAX		1000
1,4-dichloro-butene cis	Not detected		Result <= MAX		1000
N,N-dimethylhydrazine	Not detected		Result <= MAX		1000
dimethylcarbamoyl chloride	Not Analyzed		Result <= MAX		1000

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

Cadmium	0	ppm	Result <= MAX		100
Lead	0	ppm	Result <= MAX		1000
Chromium	0	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000

Phthalates

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0		Result <= MAX		1000
DBP	0		Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
DEEP	0		Result <= MAX		1000000
DEHP	0		Result <= MAX		1000
DIH _p P	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIH _x P	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	0	ppm	Not Equal to		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000
N methylacetamide	Not detected		Result <= MAX		1000000
NN dimethylformamide	Not detected		Result <= MAX		1000000
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
1,2,3 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylene di o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarboic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000
Michlers ketone	Not detected		Result <= MAX		1000000
Michlers base	Not detected		Result <= MAX		1000000
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000

Flame retardants (PBDE and PBB)

according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.

testing conditions: 111/54/CDV & IEC 62321

PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	Not detected		Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000

	Result	Units	Spec rule	Min	Max
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Part description: chrome plastic reflector

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

Cadmium	0	ppm	Result <= MAX		100
Lead	100	ppm	Result <= MAX		1000
Mercury	100	ppm	Result <= MAX		1000

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Halowax 1000 mono PCN	Not detected		Result < MAX		1000000
Halowax 1000 di PCN	Not detected		Result < MAX		1000000
Halowax 1001 tri PCN	Not detected		Result < MAX		1000000
Halowax 1013 tetra PCN	Not detected		Result < MAX		1000000
Halowax 1014 penta PCN	Not detected		Result < MAX		1000000
Halowax 1014 hexa PCN	Not detected		Result < MAX		1000000
Halowax 1051 hepta PCN	Not detected		Result < MAX		1000000
Halowax 1051 octa PCN	Not detected		Result < MAX		1000000

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chloroparaffins total	0	ppm	Result < MAX		1000
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Result	Units	Spec rule	Min	Max
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PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK Category 3

Result	Units	Spec rule	Min	Max
Benzo a pyrene	Not detected		Result <= MAX	1000000
Benzo a anthracene	Not detected		Result <= MAX	1000000
Chrysene	Not detected		Result <= MAX	1000000
Benzo b fluoranthene	Not detected		Result <= MAX	1000000
Benzo k fluoranthene	Not detected		Result <= MAX	1000000
Dibenz ah anthracene	Not detected		Result <= MAX	1000000
Benzo j fluoranthene	Not detected		Result <= MAX	1000000
Benzo e pyrene	Not detected		Result <= MAX	1000000
Indeno 123cd pyrene	Not detected		Result <= MAX	1000000
Benzo ghi perylene	Not detected		Result <= MAX	1000000
Acenaphthylene	Not detected		Result <= MAX	1000000
Acenaphthene	Not detected		Result <= MAX	1000000
Fluorene	Not detected		Result <= MAX	1000000
Phenanthrene	4.0	ppm	Result <= MAX	1000000
Anthracene	4.0	ppm	Result <= MAX	1000000
Fluoranthene	Not detected		Result <= MAX	1000000
Pyrene	Not detected		Result <= MAX	1000000
Naphthalene	Not detected		Result <= MAX	1000000
sum of 4 PAH	8	ppm	Result <= MAX	1000000
sum of 15 PAH	8	ppm	Result <= MAX	1000000
Anthracene oils and pastes	4	ppm	Result <= MAX	1000000
Coal tar	8	ppm	Result <= MAX	1000000

OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Result	Units	Spec rule	Min	Max
DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX	1000000
a BHC	Not detected		Result < MAX	1000000
Hexachlorobenzene	Not detected		Result < MAX	1000000



	Result	Units	Spec rule	Min	Max
d BHC	Not detected		Result < MAX		1000000
b BHC	Not detected		Result < MAX		1000000
g BHC	Not detected		Result < MAX		1000000
Heptachlor epoxide A	Not detected		Result < MAX		1000000
Heptachlor epoxide B	Not detected		Result < MAX		1000000
Heptachlor	Not detected		Result < MAX		1000000
Aldrin	Not detected		Result < MAX		1000000
Isodrin	Not detected		Result < MAX		1000000
Endrin	Not detected		Result < MAX		1000000
Endosulfan I	Not detected		Result < MAX		1000000
Endosulfan II	Not detected		Result < MAX		1000000
44 DDE	Not detected		Result < MAX		1000000
Dieldrin	Not detected		Result < MAX		1000000
44 DDD	Not detected		Result < MAX		1000000
44 DDT	Not detected		Result < MAX		1000000
Endosulfan Sulfate	Not detected		Result < MAX		1000000
Methoxychlor	Not detected		Result < MAX		1000000
Mirex	Not detected		Result < MAX		1000000
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1000000
Toxaphene	Not detected		Result < MAX		1000000
Kepone	Not detected		Result < MAX		1000000

PCB
 according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1000000
Dichlorobiphenyl	Not detected		Result <= MAX		1000000
Trichlorobiphenyl	Not detected		Result <= MAX		1000000
Tetrachlorobiphenyl	Not detected		Result <= MAX		1000000
Pentachlorobiphenyl	Not detected		Result <= MAX		1000000
Hexachlorobiphenyl	Not detected		Result <= MAX		1000000
Heptachlorobiphenyl	Not detected		Result <= MAX		1000000
Octachlorobiphenyl	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
Decachlorobiphenyl	Not detected		Result <= MAX		1000000

Phthalates

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0	ppm	Result <= MAX		1000
DBP	0		Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000
DEEP	0		Result <= MAX		1000000
DEHP	600	ppm	Result <= MAX		1000
DIH _p P	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIH _x P	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	600	ppm	Result <= MAX		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000
N methylacetamide	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
NN dimethylformamide	Not detected		Result <= MAX		1000000
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
123 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylenedi o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarbolic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000
Michlers ketone	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
Michlers base	Not detected		Result <= MAX		1000000
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
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Phenols

according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 and POP EU/2019/1021 on Phenol content.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Octyl phenol	Not detected		Result <= MAX		1000000
Nonyl phenol	Not detected		Result <= MAX		1000000
Phenol, pentachloro- / PCP	Not detected		Result <= MAX		100

Flame retardants (PBDE and PBB)

according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.

testing conditions: 111/54/CDV & IEC 62321

PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	Not detected		Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Result

Units

Spec rule

Min

Max

Part description: black plastic switch

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

	Result	Units	Spec rule	Min	Max
Cadmium	0	ppm	Result <= MAX		100
Lead	0	ppm	Result <= MAX		1000
Chromium	0	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

	Result	Units	Spec rule	Min	Max
Halowax 1000 mono PCN	Not detected		Result < MAX		0,1
Halowax 1000 di PCN	Not detected		Result < MAX		0,1
Halowax 1001 tri PCN	Not detected		Result < MAX		0,1
Halowax 1013 tetra PCN	Not detected		Result < MAX		0,1
Halowax 1014 penta PCN	Not detected		Result < MAX		0,1
Halowax 1014 hexa PCN	Not detected		Result < MAX		0,1
Halowax 1051 hepta PCN	Not detected		Result < MAX		0,1
Halowax 1051 octa PCN	Not detected		Result < MAX		0,1

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

	Result	Units	Spec rule	Min	Max
Chloroparaffins total	0	ppm	Result < MAX		1000

PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK Category 3

	Result	Units	Spec rule	Min	Max
Benzo a pyrene	Not detected		Result <= MAX		1.0
Benzo a anthracene	Not detected		Result <= MAX		1.0

	Result	Units	Spec rule	Min	Max
Chrysene	Not detected		Result <= MAX		1.0
Benzo b fluoranthene	Not detected		Result <= MAX		1.0
Benzo k fluoranthene	Not detected		Result <= MAX		1.0
Dibenz ah anthracene	Not detected		Result <= MAX		1.0
Benzo j fluoranthene	Not detected		Result <= MAX		1.0
Benzo e pyrene	Not detected		Result <= MAX		1.0
Indeno 123cd pyrene	Not detected		Result <= MAX		1.0
Benzo ghi perylene	Not detected		Result <= MAX		1.0
Acenaphthylene	Not detected		Result <= MAX		1000000
Acenaphthene	Not detected		Result <= MAX		1000000
Fluorene	Not detected		Result <= MAX		1000000
Phenanthrene	Not detected		Result <= MAX		50
Anthracene	Not detected		Result <= MAX		50
Fluoranthene	Not detected		Result <= MAX		50
Pyrene	Not detected		Result <= MAX		50
Naphthalene	Not detected		Result <= MAX		10
sum of 4 PAH	0	ppm	Result <= MAX		50
sum of 15 PAH	0	ppm	Result <= MAX		50
Anthracene oils and pastes	0	ppm	Result <= MAX		1000000
Coal tar	0	ppm	Result <= MAX		1000000

OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX		0.1
a BHC	Not detected		Result < MAX		1.0
Hexachlorobenzene	Not detected		Result < MAX		1.0
d BHC	Not detected		Result < MAX		1.0
b BHC	Not detected		Result < MAX		1.0
g BHC	Not detected		Result < MAX		1.0
Heptachlor epoxide A	Not detected		Result < MAX		1.0
Heptachlor epoxide B	Not detected		Result < MAX		1.0
Heptachlor	Not detected		Result < MAX		1.0

	Result	Units	Spec rule	Min	Max
Aldrin	Not detected		Result < MAX		1.0
Isodrin	Not detected		Result < MAX		1.0
Endrin	Not detected		Result < MAX		1.0
Endosulfan I	Not detected		Result < MAX		1.0
Endosulfan II	Not detected		Result < MAX		1.0
44 DDE	Not detected		Result < MAX		1,0
Dieldrin	Not detected		Result < MAX		1.0
44 DDD	Not detected		Result < MAX		1,0
44 DDT	Not detected		Result < MAX		1,0
Endosulfan Sulfate	Not detected		Result < MAX		1,0
Methoxychlor	Not detected		Result < MAX		1.0
Mirex	Not detected		Result < MAX		1.0
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1.0
Toxaphene	Not detected		Result < MAX		1.0
Kepone	Not detected		Result < MAX		1.0

PCB
according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1.0
Dichlorobiphenyl	Not detected		Result <= MAX		1.0
Trichlorobiphenyl	Not detected		Result <= MAX		1.0
Tetrachlorobiphenyl	Not detected		Result <= MAX		1.0
Pentachlorobiphenyl	Not detected		Result <= MAX		1.0
Hexachlorobiphenyl	Not detected		Result <= MAX		1.0
Heptachlorobiphenyl	Not detected		Result <= MAX		1.0
Octachlorobiphenyl	Not detected		Result <= MAX		1.0
Decachlorobiphenyl	Not detected		Result <= MAX		1.0

Phenols
according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 on Phenol content.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Octyl phenol	Not detected		Result <= MAX		1000000
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	Result	Units	Spec rule	Min	Max
Nonyl phenol	Not detected		Result <= MAX		1000000
Phenol, pentachloro- / PCP	Not detected		Result <= MAX		5

Phthalates

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0		Result <= MAX		1000
DBP	0		Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000
DEEP	0		Result <= MAX		1000000
DEHP	100	ppm	Result <= MAX		1000
DIH _p P	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIH _x P	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	100	ppm	Result <= MAX		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
N methylacetamide	Not detected		Result <= MAX		1000000
NN dimethylformamide	Not detected		Result <= MAX		1000000
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
123 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylenedi o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarboic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
Michlers ketone	Not detected		Result <= MAX		1000000
Michlers base	Not detected		Result <= MAX		1000000
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
Flame retardants (PBDE and PBB)					
according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.					
testing conditions: 111/54/CDV & IEC 62321					
PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	Not detected		Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Part description: black insulation wire

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Halowax 1000 mono PCN	Not detected		Result < MAX		0,1
Halowax 1000 di PCN	Not detected		Result < MAX		0,1
Halowax 1001 tri PCN	Not detected		Result < MAX		0,1



	Result	Units	Spec rule	Min	Max
Halowax 1013 tetra PCN	Not detected		Result < MAX		0,1
Halowax 1014 penta PCN	Not detected		Result < MAX		0,1
Halowax 1014 hexa PCN	Not detected		Result < MAX		0,1
Halowax 1051 hepta PCN	Not detected		Result < MAX		0,1
Halowax 1051 octa PCN	Not detected		Result < MAX		0,1

PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK

Benzo a pyrene	Not detected		Result <= MAX		1000000
Anthracene	Not detected		Result <= MAX		1000000
Anthracene oils and pastes	0	ppm	Result <= MAX		1000000
Coal tar	6	ppm	Result <= MAX		1000000

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chloroparaffins total	0	ppm	Result < MAX		1000
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OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX		0.1
a BHC	Not detected		Result < MAX		1.0
Hexachlorobenzene	Not detected		Result < MAX		1.0
d BHC	Not detected		Result < MAX		1.0
b BHC	Not detected		Result < MAX		1.0
g BHC	Not detected		Result < MAX		1.0
Heptachlor epoxide A	Not detected		Result < MAX		1.0
Heptachlor epoxide B	Not detected		Result < MAX		1.0
Heptachlor	Not detected		Result < MAX		1.0
Aldrin	Not detected		Result < MAX		1.0

	Result	Units	Spec rule	Min	Max
Isodrin	Not detected		Result < MAX		1.0
Endrin	Not detected		Result < MAX		1.0
Endosulfan I	Not detected		Result < MAX		1.0
Endosulfan II	Not detected		Result < MAX		1.0
44 DDE	Not detected		Result < MAX		1.0
Dieldrin	Not detected		Result < MAX		1.0
44 DDD	Not detected		Result < MAX		1.0
44 DDT	Not detected		Result < MAX		1.0
Endosulfan Sulfate	Not detected		Result < MAX		1.0
Methoxychlor	Not detected		Result < MAX		1.0
Mirex	Not detected		Result < MAX		1.0
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1.0
Toxaphene	Not detected		Result < MAX		1.0
Kepone	Not detected		Result < MAX		1.0

Phenols

according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 on Phenol content and Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Phenol, pentachloro- / PCP	Not detected		Result <= MAX		5
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PCB

according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1.0
Dichlorobiphenyl	Not detected		Result <= MAX		1.0
Trichlorobiphenyl	Not detected		Result <= MAX		1.0
Tetrachlorobiphenyl	Not detected		Result <= MAX		1.0
Pentachlorobiphenyl	Not detected		Result <= MAX		1.0
Hexachlorobiphenyl	Not detected		Result <= MAX		1.0
Heptachlorobiphenyl	Not detected		Result <= MAX		1.0
Octachlorobiphenyl	Not detected		Result <= MAX		1.0
Decachlorobiphenyl	Not detected		Result <= MAX		1.0

Result	Units	Spec rule	Min	Max
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Reach restrictions annex 17

according to: Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Substance	Result	Units	Spec rule	Min	Max
DEGME	Not detected		Result <= MAX		30000
4-Nitrobiphenyl	Not detected		Result <= MAX		1000
1,4-dichloro-butene trans	Not detected		Result <= MAX		1000
1,4-dichloro-butene cis	Not detected		Result <= MAX		1000
N,N-dimethylhydrazine	Not detected		Result <= MAX		1000
dimethylcarbamoyl chloride	Not Analyzed		Result <= MAX		1000

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

Substance	Result	Units	Spec rule	Min	Max
Cadmium	0	ppm	Result <= MAX		100
Lead	0	ppm	Result <= MAX		1000
Chromium	0	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000

Phthalates

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Substance	Result	Units	Spec rule	Min	Max
DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0		Result <= MAX		1000
DBP	0		Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
DEEP	0		Result <= MAX		1000000
DEHP	0		Result <= MAX		1000
DIH _p P	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIH _x P	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	0	ppm	Not Equal to		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000
N methylacetamide	Not detected		Result <= MAX		1000000
NN dimethylformamide	Not detected		Result <= MAX		1000000
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
1,2,3 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylene di o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarboic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000
Michlers ketone	Not detected		Result <= MAX		1000000
Michlers base	Not detected		Result <= MAX		1000000
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000

Flame retardants (PBDE and PBB)

according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.

testing conditions: 111/54/CDV & IEC 62321

PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	Not detected		Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000

	Result	Units	Spec rule	Min	Max
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Part description: white insulation wire

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Halowax 1000 mono PCN	Not detected		Result < MAX		0,1
Halowax 1000 di PCN	Not detected		Result < MAX		0,1
Halowax 1001 tri PCN	Not detected		Result < MAX		0,1
Halowax 1013 tetra PCN	Not detected		Result < MAX		0,1
Halowax 1014 penta PCN	Not detected		Result < MAX		0,1
Halowax 1014 hexa PCN	Not detected		Result < MAX		0,1
Halowax 1051 hepta PCN	Not detected		Result < MAX		0,1
Halowax 1051 octa PCN	Not detected		Result < MAX		0,1

PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK

Benzo a pyrene	Not detected		Result <= MAX		1000000
Anthracene	Not detected		Result <= MAX		1000000
Anthracene oils and pastes	0	ppm	Result <= MAX		1000000
Coal tar	5	ppm	Result <= MAX		1000000

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14



	Result	Units	Spec rule	Min	Max
Chloroparaffins total	0	ppm	Result < MAX		1000

OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX		0.1
a BHC	Not detected		Result < MAX		1.0
Hexachlorobenzene	Not detected		Result < MAX		1.0
d BHC	Not detected		Result < MAX		1.0
b BHC	Not detected		Result < MAX		1.0
g BHC	Not detected		Result < MAX		1.0
Heptachlor epoxide A	Not detected		Result < MAX		1.0
Heptachlor epoxide B	Not detected		Result < MAX		1.0
Heptachlor	Not detected		Result < MAX		1.0
Aldrin	Not detected		Result < MAX		1.0
Isodrin	Not detected		Result < MAX		1.0
Endrin	Not detected		Result < MAX		1.0
Endosulfan I	Not detected		Result < MAX		1.0
Endosulfan II	Not detected		Result < MAX		1.0
44 DDE	Not detected		Result < MAX		1,0
Dieldrin	Not detected		Result < MAX		1.0
44 DDD	Not detected		Result < MAX		1,0
44 DDT	Not detected		Result < MAX		1,0
Endosulfan Sulfate	Not detected		Result < MAX		1,0
Methoxychlor	Not detected		Result < MAX		1.0
Mirex	Not detected		Result < MAX		1.0
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1.0
Toxaphene	Not detected		Result < MAX		1.0
Kepone	Not detected		Result < MAX		1.0

Phenols

according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 on Phenol content and Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14





	Result	Units	Spec rule	Min	Max
Phenol, pentachloro- / PCP	Not detected		Result <= MAX		5

PCB
according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1.0
Dichlorobiphenyl	Not detected		Result <= MAX		1.0
Trichlorobiphenyl	Not detected		Result <= MAX		1.0
Tetrachlorobiphenyl	Not detected		Result <= MAX		1.0
Pentachlorobiphenyl	Not detected		Result <= MAX		1.0
Hexachlorobiphenyl	Not detected		Result <= MAX		1.0
Heptachlorobiphenyl	Not detected		Result <= MAX		1.0
Octachlorobiphenyl	Not detected		Result <= MAX		1.0
Decachlorobiphenyl	Not detected		Result <= MAX		1.0

Reach restrictions annex 17
according to: Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DEGME	Not detected		Result <= MAX		30000
4-Nitrobiphenyl	Not detected		Result <= MAX		1000
1,4-dichloro-butene trans	Not detected		Result <= MAX		1000
1,4-dichloro-butene cis	Not detected		Result <= MAX		1000
N,N-dimethylhydrazine	Not detected		Result <= MAX		1000
dimethylcarbamoyl chloride	Not Analyzed		Result <= MAX		1000

Heavy metals content
according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

Cadmium	10	ppm	Result <= MAX		100
Lead	0	ppm	Result <= MAX		1000
Chromium	0	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000



	Result	Units	Spec rule	Min	Max
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Phthalates

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0		Result <= MAX		1000
DBP	0		Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000
DEEP	0		Result <= MAX		1000000
DEHP	300	ppm	Result <= MAX		1000
DIH _p P	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIH _x P	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	300	ppm	Not Equal to		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000
N methylacetamide	Not detected		Result <= MAX		1000000
NN dimethylformamide	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
123 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylene di o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarboic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000
Michlers ketone	Not detected		Result <= MAX		1000000
Michlers base	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000

Flame retardants (PBDE and PBB)

according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.

testing conditions: 111/54/CDV & IEC 62321



	Result	Units	Spec rule	Min	Max
PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	0	ppm	Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Part description: red insulation wire

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Halowax 1000 mono PCN	Not detected		Result < MAX		0,1
Halowax 1000 di PCN	Not detected		Result < MAX		0,1
Halowax 1001 tri PCN	Not detected		Result < MAX		0,1
Halowax 1013 tetra PCN	Not detected		Result < MAX		0,1
Halowax 1014 penta PCN	Not detected		Result < MAX		0,1
Halowax 1014 hexa PCN	Not detected		Result < MAX		0,1

	Result	Units	Spec rule	Min	Max
Halowax 1051 hepta PCN	Not detected		Result < MAX		0,1
Halowax 1051 octa PCN	Not detected		Result < MAX		0,1

PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK

Benzo a pyrene	Not detected		Result <= MAX		1000000
Anthracene	Not detected		Result <= MAX		1000000
Anthracene oils and pastes	0	ppm	Result <= MAX		1000000
Coal tar	6	ppm	Result <= MAX		1000000

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chloroparaffins total	0	ppm	Result < MAX		1000
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OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX		0.1
a BHC	Not detected		Result < MAX		1.0
Hexachlorobenzene	Not detected		Result < MAX		1.0
d BHC	Not detected		Result < MAX		1.0
b BHC	Not detected		Result < MAX		1.0
g BHC	Not detected		Result < MAX		1.0
Heptachlor epoxide A	Not detected		Result < MAX		1.0
Heptachlor epoxide B	Not detected		Result < MAX		1.0
Heptachlor	Not detected		Result < MAX		1.0
Aldrin	Not detected		Result < MAX		1.0
Isodrin	Not detected		Result < MAX		1.0
Endrin	Not detected		Result < MAX		1.0
Endosulfan I	Not detected		Result < MAX		1.0

	Result	Units	Spec rule	Min	Max
Endosulfan II	Not detected		Result < MAX		1.0
44 DDE	Not detected		Result < MAX		1,0
Dieldrin	Not detected		Result < MAX		1.0
44 DDD	Not detected		Result < MAX		1,0
44 DDT	Not detected		Result < MAX		1,0
Endosulfan Sulfate	Not detected		Result < MAX		1,0
Methoxychlor	Not detected		Result < MAX		1.0
Mirex	Not detected		Result < MAX		1.0
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1.0
Toxaphene	Not detected		Result < MAX		1.0
Kepone	Not detected		Result < MAX		1.0

Phenols

according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 on Phenol content and Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Phenol, pentachloro- / PCP	Not detected		Result <= MAX		5
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PCB

according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1.0
Dichlorobiphenyl	Not detected		Result <= MAX		1.0
Trichlorobiphenyl	Not detected		Result <= MAX		1.0
Tetrachlorobiphenyl	Not detected		Result <= MAX		1.0
Pentachlorobiphenyl	Not detected		Result <= MAX		1.0
Hexachlorobiphenyl	Not detected		Result <= MAX		1.0
Heptachlorobiphenyl	Not detected		Result <= MAX		1.0
Octachlorobiphenyl	Not detected		Result <= MAX		1.0
Decachlorobiphenyl	Not detected		Result <= MAX		1.0

	Result	Units	Spec rule	Min	Max
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Reach restrictions annex 17

according to: Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DEGME	Not detected		Result <= MAX		30000
4-Nitrobiphenyl	Not detected		Result <= MAX		1000
1,4-dichloro-butene trans	Not detected		Result <= MAX		1000
1,4-dichloro-butene cis	Not detected		Result <= MAX		1000
N,N-dimethylhydrazine	Not detected		Result <= MAX		1000
dimethylcarbamoyl chloride	Not Analyzed		Result <= MAX		1000

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

Cadmium	20	ppm	Result <= MAX		100
Lead	0	ppm	Result <= MAX		1000
Chromium	0	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000

Phthalates

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0		Result <= MAX		1000
DBP	0		Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
DEEP	0		Result <= MAX		1000000
DEHP	400	ppm	Result <= MAX		1000
DIH _p P	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIH _x P	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	400	ppm	Not Equal to		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000
N methylacetamide	Not detected		Result <= MAX		1000000
NN dimethylformamide	Not detected		Result <= MAX		1000000
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
1,2,3 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylene di o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarboic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000
Michlers ketone	Not detected		Result <= MAX		1000000
Michlers base	Not detected		Result <= MAX		1000000
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000

Flame retardants (PBDE and PBB)

according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.

testing conditions: 111/54/CDV & IEC 62321

PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	Not detected		Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000



	Result	Units	Spec rule	Min	Max
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Part description: blue insulation wire

PCN

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on PCN.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Halowax 1000 mono PCN	Not detected		Result < MAX		0,1
Halowax 1000 di PCN	Not detected		Result < MAX		0,1
Halowax 1001 tri PCN	Not detected		Result < MAX		0,1
Halowax 1013 tetra PCN	Not detected		Result < MAX		0,1
Halowax 1014 penta PCN	Not detected		Result < MAX		0,1
Halowax 1014 hexa PCN	Not detected		Result < MAX		0,1
Halowax 1051 hepta PCN	Not detected		Result < MAX		0,1
Halowax 1051 octa PCN	Not detected		Result < MAX		0,1

PAH (15 ZEK - EPA)

according to: Geprüfte Sicherheit (GS) - AfPS Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK)

testing conditions: AfPS GS 2014:01 PAK

Benzo a pyrene	Not detected		Result <= MAX		1000000
Anthracene	Not detected		Result <= MAX		1000000
Anthracene oils and pastes	0	ppm	Result <= MAX		1000000
Coal tar	6	ppm	Result <= MAX		1000000

SCCP, Chloroparaffins

according to: Regulation (EC) 2019/1021 - Persistent Organic Pollutants (POP) on SCCP.

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14



	Result	Units	Spec rule	Min	Max
Chloroparaffins total	0	ppm	Result < MAX		1000

OCP & DMF

according to: Reach 1907/2006 Annex XVII, entry 61 on DMF

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DMF (DIMETHYLFUMARATE)	Not detected		Result < MAX		0.1
a BHC	Not detected		Result < MAX		1.0
Hexachlorobenzene	Not detected		Result < MAX		1.0
d BHC	Not detected		Result < MAX		1.0
b BHC	Not detected		Result < MAX		1.0
g BHC	Not detected		Result < MAX		1.0
Heptachlor epoxide A	Not detected		Result < MAX		1.0
Heptachlor epoxide B	Not detected		Result < MAX		1.0
Heptachlor	Not detected		Result < MAX		1.0
Aldrin	Not detected		Result < MAX		1.0
Isodrin	Not detected		Result < MAX		1.0
Endrin	Not detected		Result < MAX		1.0
Endosulfan I	Not detected		Result < MAX		1.0
Endosulfan II	Not detected		Result < MAX		1.0
44 DDE	Not detected		Result < MAX		1,0
Dieldrin	Not detected		Result < MAX		1.0
44 DDD	Not detected		Result < MAX		1,0
44 DDT	Not detected		Result < MAX		1,0
Endosulfan Sulfate	Not detected		Result < MAX		1,0
Methoxychlor	Not detected		Result < MAX		1.0
Mirex	Not detected		Result < MAX		1.0
Hexachloro-1-3-butadiene	Not detected		Result < MAX		1.0
Toxaphene	Not detected		Result < MAX		1.0
Kepone	Not detected		Result < MAX		1.0

Phenols

according to: Reach 1907/2006 Annex XVII, entry 2,5,22,32-38,41,48,49,57 on Phenol content and Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14





	Result	Units	Spec rule	Min	Max
Phenol, pentachloro- / PCP	Not detected		Result <= MAX		5

PCB

according to: POP COMMISSION REGULATION No EC 2019/1021

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

Chlorobiphenyl	Not detected		Result <= MAX		1.0
Dichlorobiphenyl	Not detected		Result <= MAX		1.0
Trichlorobiphenyl	Not detected		Result <= MAX		1.0
Tetrachlorobiphenyl	Not detected		Result <= MAX		1.0
Pentachlorobiphenyl	Not detected		Result <= MAX		1.0
Hexachlorobiphenyl	Not detected		Result <= MAX		1.0
Heptachlorobiphenyl	Not detected		Result <= MAX		1.0
Octachlorobiphenyl	Not detected		Result <= MAX		1.0
Decachlorobiphenyl	Not detected		Result <= MAX		1.0

Reach restrictions annex 17

according to: Reach 1907/2006 Annex XVII, entry 28-29-30, CMR content

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

DEGME	Not detected		Result <= MAX		30000
4-Nitrobiphenyl	Not detected		Result <= MAX		1000
1,4-dichloro-butene trans	Not detected		Result <= MAX		1000
1,4-dichloro-butene cis	Not detected		Result <= MAX		1000
N,N-dimethylhydrazine	Not detected		Result <= MAX		1000
dimethylcarbamoil chloride	Not Analyzed		Result <= MAX		1000

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321

Cadmium	10	ppm	Result <= MAX		100
Lead	0	ppm	Result <= MAX		1000
Chromium	0	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000



**Result****Units****Spec rule****Min****Max****Phthalates**

according to: Directive (EU) 2015/863 on Phthalates

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

	Result	Units	Spec rule	Min	Max
DMP	0		Result <= MAX		1000000
DEP	0		Result <= MAX		1000000
DAP	0		Result <= MAX		1000000
DIBP	0		Result <= MAX		1000
DBP	0		Result <= MAX		1000
DMEP	0		Result <= MAX		1000000
DPP	0		Result <= MAX		1000000
DIPP	0		Result <= MAX		1000000
nPiPP	0		Result <= MAX		1000000
BBP	0		Result <= MAX		1000
DHP	0		Result <= MAX		1000000
DEEP	0		Result <= MAX		1000000
DEHP	0		Result <= MAX		1000
DIHpP	0		Result <= MAX		1000000
DNOP	0		Result <= MAX		1000000
DINP	0		Result <= MAX		1000000
DIDP	0		Result <= MAX		1000000
DIHxP	0		Result <= MAX		1000000
DHNUP	0		Result <= MAX		1000000
Sum of four phthalates	0	ppm	Not Equal to		1000

SVHC

according to: Reach 1907/2006 art 33-57 on SVHC

testing conditions: CPSC_CH_C1001-09.3 EPA3546 / ASTM D7823-14

2 Methoxy ethanol	Not detected		Result <= MAX		1000000
Methoxyacetic acid	Not detected		Result <= MAX		1000000
1,2 Dichloroethane	Not detected		Result <= MAX		1000000
N methylacetamide	Not detected		Result <= MAX		1000000
NN dimethylformamide	Not detected		Result <= MAX		1000000



	Result	Units	Spec rule	Min	Max
Acrylamide	Not detected		Result <= MAX		1000000
2-ethoxyethyl acetate	Not detected		Result <= MAX		1000000
1 Bromopropane	0	ppm	Result <= MAX		1000000
123 Trichloropropane	Not detected		Result <= MAX		1000000
Bis(2methoxyethyl)ether	Not detected		Result <= MAX		1000000
1-methyl-2-pyrrolidinone	Not detected		Result <= MAX		1000000
Trichloro ethene	Not detected		Result <= MAX		1000000
2 Ethoxy ethanol	Not detected		Result <= MAX		1000000
TBTO	Not detected		Result <= MAX		1000000
TCEP	Not detected		Result <= MAX		1000000
DNT	Not detected		Result <= MAX		1000000
DINOSEB	Not detected		Result <= MAX		1000000
4 tert Octylphenol	Not detected		Result <= MAX		1000000
Nonyl Phenol	Not detected		Result <= MAX		1000000
Musk Xylene	Not detected		Result <= MAX		1000000
o Toluidine	Not detected		Result <= MAX		1000000
44 MDA	Not detected		Result <= MAX		1000000
4 Aminobiphenyl	Not detected		Result <= MAX		1000000
p Cresidine	Not detected		Result <= MAX		1000000
Benzenamine 44-methylenebis-2-chloro-	Not detected		Result <= MAX		1000000
24 Diaminotoluene	Not detected		Result <= MAX		1000000
Phenylazoaniline	Not detected		Result <= MAX		1000000
44 Methylene di o toluidine	Not detected		Result <= MAX		1000000
44 Oxydianiline	Not detected		Result <= MAX		1000000
o Aminoazotoluene	Not detected		Result <= MAX		1000000
12 Cyclohexanedicarboic anhydride	Not detected		Result <= MAX		1000000
Hexahydro-4-methylphtalic anhydride	Not detected		Result <= MAX		1000000
Phenolphthalein	Not detected		Result <= MAX		1000000
Basic Violet 3	Not detected		Result <= MAX		1000000
Victoria Blue 26	Not detected		Result <= MAX		1000000
TEGDME	Not detected		Result <= MAX		1000000
EGDME	Not detected		Result <= MAX		1000000
Michlers ketone	Not detected		Result <= MAX		1000000
Michlers base	Not detected		Result <= MAX		1000000

	Result	Units	Spec rule	Min	Max
TGIC	Not detected		Result <= MAX		1000000
B-TGIC	Not detected		Result <= MAX		1000000
Direct red 28	Not detected		Result <= MAX		1000000
Direct black 38	Not detected		Result <= MAX		1000000
Trixylyl phosphate	Not detected		Result <= MAX		1000000
Formaldehyde oligomer reaction products	0	ppm	Result <= MAX		1000000
DBTDC	Not detected		Result <= MAX		1000000
12 Diethoxyethane	Not detected		Result <= MAX		1000000
Imidazolidine-2-thione	Not detected		Result <= MAX		1000000
UV-328	Not detected		Result <= MAX		1000000
Uvazol 237	Not detected		Result <= MAX		1000000
UV-350	Not detected		Result <= MAX		1000000
HBCDD total	Not detected		Result <= MAX		1000000
13 Propanesultone	Not detected		Result <= MAX		1000000
Dicyclohexyl phthalate	Not detected		Result <= MAX		1000000
HDDA	Not detected		Result <= MAX		1000000
Nitrobenzene	Not detected		Result <= MAX		1000000
Amber Dioxade Isomers	Not detected		Result <= MAX		1000000
Bisphenol A	Not detected		Result <= MAX		1000000
11 Dimethylpropylphenol	Not detected		Result <= MAX		1000000
4-tert-Amylphenol	Not detected		Result <= MAX		1000000
4-n-Heptylphenol	Not detected		Result <= MAX		1000000
Dechlorane Plus	Not detected		Result <= MAX		1000000
Terphenyl hydrogenated	Not detected		Result <= MAX		1000000
Ethylenediamine	0	ppm	Result <= MAX		1000000
TMA	Not detected		Result <= MAX		1000000
4MBC	Not detected		Result <= MAX		1000000
3BC	Not detected		Result <= MAX		1000000
PTBP	Not detected		Result <= MAX		1000000

Flame retardants (PBDE and PBB)

according to: Reach 1907/2006 Annex XVII & POP EC/2019/1021, flame retardants content.

testing conditions: 111/54/CDV & IEC 62321



	Result	Units	Spec rule	Min	Max
PBDE Total	0	ppm	Result < MAX		1000
MonoBDE	Not detected		Result <= MAX		1000
DiBDE	Not detected		Result <= MAX		1000
TriBDE	Not detected		Result <= MAX		1000
TetraBDE	Not detected		Result <= MAX		1000
PentaBDE	Not detected		Result <= MAX		1000
HexaBDE	Not detected		Result <= MAX		1000
HeptaBDE	Not detected		Result <= MAX		1000
OctaBDE	Not detected		Result <= MAX		1000
NonaBDE	Not detected		Result <= MAX		1000
DecaBDE	Not detected		Result <= MAX		1000
MONOBROMOBIPHENYL	Not detected		Result < MAX		1000
DIBROMOBIPHENYL	Not detected		Result < MAX		1000
TRIBROMOBIPHENYL	Not detected		Result < MAX		1000
TETRABROMOBIPHENYL	Not detected		Result < MAX		1000
PENTABROMOBIPHENYL	Not detected		Result < MAX		1000
HEXABROMOBIPHENYL	Not detected		Result < MAX		1000
HEPTABROMOBIPHENYL	Not detected		Result < MAX		1000
OCTABROMOBIPHENYL	Not detected		Result < MAX		1000
NONABROMOBIPHENYL	Not detected		Result < MAX		1000
DECABROMOBIPHENYL	Not detected		Result < MAX		1000
PBB Total	0	ppm	Result <= MAX		1000

Part description: SOLDER on battery plates

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX		100
Lead	30	ppm	Result <= MAX		1000
Chromium	30	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000

Part description: SOLDER on PCB





Result	Units	Spec rule	Min	Max
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Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Result	Units	Spec rule	Min	Max
Cadmium	0	ppm	Result <= MAX	100
Lead	110	ppm	Result <= MAX	1000
Chromium	40	ppm	Result <= MAX	1000
Mercury	0	ppm	Result <= MAX	1000

Part description: SOLDER on solar**Heavy metals content**

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX	100
Lead	10	ppm	Result <= MAX	1000
Chromium	30	ppm	Result <= MAX	1000
Mercury	0	ppm	Result <= MAX	1000

Part description: SOLDER on led**Heavy metals content**

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX	100
Lead	150	ppm	Result <= MAX	1000
Chromium	0	ppm	Result <= MAX	1000
Mercury	0	ppm	Result <= MAX	1000

Part description: SOLDER on wires**Heavy metals content**

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX	100
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	Result	Units	Spec rule	Min	Max
Lead	10	ppm	Result <= MAX		1000
Chromium	10	ppm	Result <= MAX		1000
Mercury	0	ppm	Result <= MAX		1000

*** END OF REPORT ***



Certificate Of Analysis

SOLAR LIGHT MINI SPOT LIGHT



Report number **DX9300585-035035-3**

Print date: **2021-11-22**

Applicant: Koopman International
Country: The Netherlands
Article description: SOLAR LIGHT MINI SPOT LIGHT
Item number: DX9300585
Order number: 035035
Date of article received: november 16, 2021
Testing Completed: november 22,2021
EAN code: 8719987037535

Conclusion: Passed

The test results only apply to the tested specimens

Signed for and on behalf of Koopman International B.V.


Koopman International B.V.
Distelweg 88
1031 HH AMSTERDAM
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Ir. Ing. E. Ramadan
Chemist & Technologist.

Koopman International BV has a verified Bureau Veritas procedure of Laboratory Testing and a Bureau Veritas verification of REACH compliance. The test itself and the associated report is reviewed by Koopman International BV.





Summary of tested parts.

Part(s) description:

Solder of battery holder

Solder of PCB

Solder of led

(The test results for the above part(s) are found at the next pages)

Result	Units	Spec rule	Min	Max
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Part description: Solder of battery holder

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX	100
Lead	0	ppm	Result <= MAX	1000

Part description: Solder of PCB

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX	100
Lead	0	ppm	Result <= MAX	1000

Part description: Solder of led

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX	100
Lead	0	ppm	Result <= MAX	1000





*** END OF REPORT ***



Certificate Of Analysis

SOLAR LIGHT MINI SPOT LIGHT



Report number **DX9300585-035036-3**

Print date: **2022-01-04**

Applicant: Koopman International
Country: The Netherlands
Article description: SOLAR LIGHT MINI SPOT LIGHT
Item number: DX9300585
Order number: 035036
Date of article received: januari 04, 2022
Testing Completed:
EAN code: 8719987037535

Conclusion : Passed

The test results only apply to the tested specimens

Signed for and on behalf of Koopman International B.V.


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Koopman International BV has a verified Bureau Veritas procedure of Laboratory Testing and a Bureau Veritas verification of REACH compliance. The test itself and the associated report is reviewed by Koopman International BV.





Summary of tested parts.

Part(s) description:

Solder of PCB

(The test results for the above part(s) are found at the next pages)

Result	Units	Spec rule	Min	Max
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Part description: Solder of PCB

Heavy metals content

according to: Directive 2011/65/EU - ROHS 2

testing conditions: 111/54/CDV & IEC 62321 & NPR-CR 10299

Cadmium	0	ppm	Result <= MAX	100
Lead	100	ppm	Result <= MAX	1000
Tin	23000	ppm	Result <= MAX	1000000

*** END OF REPORT ***

