

Test Report (SVHC)

No. NGBEC1902462807

Date: 18 Jul 2019

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NINGBO SNAPPY OPTOELECTRONICS CO.,LTD
NO.56, KEDA ROAD NATIONAL HI-TECH PARK OF NINGBO ZHEJIANG

The following sample(s) was/were submitted and identified on behalf of the clients as : LED drive power supply

SGS Job No. : NP19-001976 - NB

Model No. : SPE320-24VLP SNP250-12VL 803B-6

Client Ref. Information : SEE ATTACHMENT

Date of Sample Received : 24 May 2019

Testing Period : 24 May 2019 - 18 Jul 2019

Test Requested : As requested by client, SVHC screening is performed according to:
(i) For sample 001~004, 021, 024, one hundred and ninety seven (197) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before Jan 15, 2019 regarding Regulation (EC) No 1907/2006 concerning the REACH.
(ii) For sample 001~004, 021, 024, additional One (1) Substances of Very High Concern (SVHC) identified by the notification of WTO on Feb 7, 2019.
(iii) For others , selected test(s) as requested by client

Test Results : Please refer to next page(s).

Summary :

According to the ruling of the Court of Justice of the European Union on the definition of an article under REACH, and the specified scope and evaluation screening, the test results of SVHC are $\leq 0.1\%$ (w/w) in the articles of the submitted sample.	PASS
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Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch

Tony Li

Tony Li

Approved Signatory



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Remark :

1. The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA:
<http://echa.europa.eu/web/guest/candidate-list-table>
These lists are under evaluation by ECHA and may subject to change in the future.

2. REACH obligation:

2.1 Concerning article(s):

Communication:

Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.

Notification:

In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).

SGS adopts the ruling of the Court of Justice of the European Union on the definition of an article under REACH unless indicated otherwise. Detail explanation is available at the following link:

<http://www.sgs.com/-/media/global/documents/technical-documents/technical-bulletins/sgs-crs-position-statement-on-svhc-in-articles-a4-en-16-06.pdf?la=en>

2.2 Concerning material(s):

Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

2.3 Concerning substance and preparation:

If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and its amendments, client is suggested to prepare a Safety



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Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

- a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.
- a mixture that is classified as hazardous under the CLP Regulation (EC) No 1272/2008, when it contains a substance with concentration equal to, or greater than the classification limit as set in Regulation (EC) No. 1272/2008; or
- a mixture is not classified as hazardous under the CLP Regulation (EC) No 1272/2008, but contains either:
 - (a) a substance posing human health or environmental hazards in an individual concentration of $\geq 1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or $\geq 0.2\%$ by volume for gaseous mixtures; or
 - (b) a substance that is PBT, or vPvB in an individual concentration of $\geq 0.1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or
 - (c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of $\geq 0.1\%$ by weight for non-gaseous mixtures; or
 - (d) a substance for which there are Europe-wide workplace exposure limits.

3. If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

Test Sample :

Sample Description :

Specimen No.	SGS Sample ID	Description	Number of SVHC Tested
SN1	NGB19-024628.001	nonmetal group1	198
SN2	NGB19-024628.002	nonmetal group2	198
SN3	NGB19-024628.003	nonmetal group3 (double confirmed)	198
SN4	NGB19-024628.004	metal group	198
SN5	NGB19-024628.018	Green PCB body (nonmetal group 3 23)	1
SN6	NGB19-024628.019	Green PCB body (nonmetal group 3 24)	1
SN7	NGB19-024628.020	nonmetal group3 (25,26,27,28,29,30,31,32,33,34,35)	1
SN8	NGB19-024628.021	nonmetal group4	198
SN9	NGB19-024628.024	Green PCB body (nonmetal group 3 22) submit by 2019.07.11	198

Test Method :

SGS In-House method-NBCHEM-TOP-138, NBCHEM-TOP-124. Analyzed by ICP-OES, UV-VIS, GC-MS, HPLC-DAD/MS and Colorimetric Method.



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Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	001 Concentration (%)	RL (%)
-	All tested SVHC in candidate list	-	ND	-

Test Result:(Additional SVHC)

Batch	Substance Name	CAS No.	001 Concentration (%)	RL (%)
-	All tested SVHC	-	ND	-

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	002 Concentration (%)	RL (%)
-	All tested SVHC in candidate list	-	ND	-

Test Result:(Additional SVHC)

Batch	Substance Name	CAS No.	002 Concentration (%)	RL (%)
-	All tested SVHC	-	ND	-

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	003 Concentration (%)	RL (%)
VIII	N,N-dimethylformamide	68-12-2	double confirmed	0.100
III	Boric acid*	10043-35-3, 11113-50-1	NA^	0.01
III	Disodium tetraborate, anhydrous*	1303-96-4, 1330-43-4, 12179-04-3	NA^	0.01
III	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	NA^	0.01
VII	Diboron trioxide*	1303-86-2	NA^	0.01
XIX	Disodium octaborate*	12008-41-2	NA^	0.01
-	Other tested SVHC in candidate list	-	ND	-

Test Result:(Additional SVHC)

Batch	Substance Name	CAS No.	003 Concentration (%)	RL (%)
-	All tested SVHC	-	ND	-



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Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	004 Concentration (%)	RL (%)
I	Diarsenic pentaoxide*	1303-28-2	0.036	0.01
-	Other tested SVHC in candidate list	-	ND	-

Test Result:(Additional SVHC)

Batch	Substance Name	CAS No.	004 Concentration (%)	RL (%)
-	All tested SVHC	-	ND	-

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	018 Concentration (%)	RL (%)
-	All tested SVHC in candidate list	-	ND	-

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	019 Concentration (%)	RL (%)
-	All tested SVHC in candidate list	-	ND	-

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	020 Concentration (%)	RL (%)
-	All tested SVHC in candidate list	-	ND	-

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	021 Concentration (%)	RL (%)
-	All tested SVHC in candidate list	-	ND	-

Test Result:(Additional SVHC)

Batch	Substance Name	CAS No.	021 Concentration (%)	RL (%)
-	All tested SVHC	-	ND	-

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	024 Concentration (%)	RL (%)
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-	All tested SVHC in candidate list	-	ND	-
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Test Result:(Additional SVHC)

Batch	Substance Name	CAS No.	024 Concentration (%)	RL (%)
-	All tested SVHC	-	ND	-



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Notes :

- (1) The table above only shows detected SVHC, and SVHC that below RL are not reported. Please refer to Appendix for the full list of tested SVHC.
- (2) RL = Reporting Limit. All RL are based on homogenous material
ND = Not detected (lower than RL), ND is denoted on the SVHC substance.
- (3) [△]CAS No. of diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD): 134237-50-6, 134237-51-7, 134237-52-8
☆CAS No. of Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride: 25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9; EC No. of those: 247-094-1, 243-072-0, 256-356-4, 260-566-1.
- (4) * The test result is based on the calculation of selected element(s) and to the worst-case scenario.
** The test result is based on the calculation of selected marker(s) and to the worst-case scenario.
For detail information, please refer to the SGS REACH website:

<http://www.sgs.com/en/Consumer-Goods-Retail/Toys-and-Juvenile-Products/Toys/REACH/Management-of-SVHC.aspx>

Calculated concentration of boric compounds are based on the total boron for liquid, powder and paste samples and water extractive boron for other samples by ICP-OES.

RL = 0.01% is evaluated for element (i.e. cobalt, arsenic, lead, chromium (VI), aluminum, zirconium, boron, strontium, zinc, antimony, titanium, barium and cadmium respectively), except molybdenum RL=0.001%, boron RL=0.005% (only for Lead bis(tetrafluoroborate)), chromium (VI) RL=0.005% (only for Pentazinc chromate octahydroxide).

- (5) § The substance is proposed for the identification as SVHC only where it contains Michler's ketone (CAS Number: 90-94-8) or Michler's base (CAS Number: 101-61-1) $\geq 0.1\%$ (w/w).
- (6) Composite test has been performed in equal proportion for the components/material per client requested. And the result is calculated using the minimum sample weight.
- (7) In consideration of the analysis requirement and the limit of sample volume, the screening test for the article is based on components / material enough to test.
- (8) Add. = Additional identified SVHC
- (9) NA[^] = Upon further test verification on the specific detected element(s) of SVHC and also information provided from client, the possibility that the element(s) content originate from SVHC is very unlikely, even though their presence cannot be exclude entirely. It may be assumed that the detected element(s) have a non-SVHC source.



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Appendix

Full list of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
I	1	4,4' -Diaminodiphenylmethane(MDA)	101-77-9	0.100	001,002,003,004,021,024
I	2	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	0.100	001,002,003,004,021,024
I	3	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	0.100	001,002,003,004,021,024
I	4	Anthracene	120-12-7	0.100	001,002,003,004,021,024
I	5	Benzyl butyl phthalate (BBP)	85-68-7	0.100	001,002,003,004,021,024
I	6	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	0.100	001,002,003,004,021,024
I	7	Bis(tributyltin)oxide (TBTO)	56-35-9	0.100	001,002,003,004,021,024
I	8	Cobalt dichloride*	7646-79-9	0.01	001,002,003,004,021,024
I	9	Diarsenic pentaoxide*	1303-28-2	0.01	001,002,003,004,021,024
I	10	Diarsenic trioxide*	1327-53-3	0.01	001,002,003,004,021,024
I	11	Dibutyl phthalate (DBP)	84-74-2	0.100	001,002,003,004,021,024
I	12	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) Δ	25637-99-4, 3194- 55-6	0.100	001,002,003,004,021,024
I	13	Lead hydrogen arsenate*	7784-40-9	0.01	001,002,003,004,021,024
I	14	Sodium dichromate*	7789-12-0, 10588-01-9	0.01	001,002,003,004,021,024
I	15	Triethyl arsenate*	15606-95-8	0.01	001,002,003,004,021,024
II	16	2,4-Dinitrotoluene	121-14-2	0.100	001,002,003,004,021,024



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Test Report (SVHC)

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Appendix

Full list of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
II	17	Acrylamide	79-06-1	0.100	001,002,003,004,021,024
II	18	Anthracene oil**	90640-80-5	0.100	001,002,003,004,021,024
II	19	Anthracene oil, anthracene paste**	90640-81-6	0.100	001,002,003,004,021,024
II	20	Anthracene oil, anthracene paste, anthracene fraction**	91995-15-2	0.100	001,002,003,004,021,024
II	21	Anthracene oil, anthracene paste, distr. lights**	91995-17-4	0.100	001,002,003,004,021,024
II	22	Anthracene oil, anthracene-low**	90640-82-7	0.100	001,002,003,004,021,024
II	23	Diisobutyl phthalate	84-69-5	0.100	001,002,003,004,021,024
II	24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*	12656-85-8	0.01	004,001,002,003,021,024
II	25	Lead chromate*	7758-97-6	0.01	001,002,003,021,024,004
II	26	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2	0.01	001,002,003,004,021,024
II	27	Pitch, coal tar, high temp.**	65996-93-2	0.100	001,002,003,004,021,024
II	28	Tris(2-chloroethyl)phosphate	115-96-8	0.100	001,002,003,004,021,024
III	29	Ammonium dichromate*	7789-09-5	0.01	001,002,003,004,021,024
III	30	Boric acid*	10043-35-3, 11113-50-1	0.01	001,002,003,004,021,024
III	31	Disodium tetraborate, anhydrous*	1303-96-4, 1330-43-4, 12179-04-3	0.01	001,002,003,004,021,024
III	32	Potassium chromate*	7789-00-6	0.01	001,002,003,004,021,024



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
III	33	Potassium dichromate*	7778-50-9	0.01	001,002,003,004,021,0 24
III	34	Sodium chromate*	7775-11-3	0.01	001,002,003,004,021,0 24
III	35	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	0.01	001,002,003,004,021,0 24
III	36	Trichloroethylene	79-01-6	0.100	001,002,003,004,021,0 24
IV	37	2-Ethoxyethanol	110-80-5	0.100	001,002,003,004,021,0 24
IV	38	2-Methoxyethanol	109-86-4	0.100	001,002,003,004,021,0 24
IV	39	Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid*	7738-94-5 - 13530-68-2	0.01	001,002,003,004,021,0 24
IV	40	Chromium trioxide*	1333-82-0	0.01	001,002,003,004,021,0 24
IV	41	Cobalt(II) carbonate*	513-79-1	0.01	001,002,003,004,021,0 24
IV	42	Cobalt(II) diacetate*	71-48-7	0.01	001,002,003,004,021,0 24
IV	43	Cobalt(II) dinitrate*	10141-05-6	0.01	001,002,003,004,021,0 24
IV	44	Cobalt(II) sulphate*	10124-43-3	0.01	001,002,003,004,021,0 24
V	45	1,2,3-trichloropropane	96-18-4	0.100	001,002,003,004,021,0 24
V	46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	0.100	001,002,003,004,021,0 24
V	47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	0.100	001,002,003,004,021,0 24



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
V	48	1-methyl-2-pyrrolidone	872-50-4	0.100	001,002,003,004,021,024
V	49	2-ethoxyethyl acetate	111-15-9	0.100	001,002,003,004,021,024
V	50	Hydrazine	7803-57-8, 302-01-2	0.100	001,002,003,004,021,024
V	51	Strontium chromate*	7789-06-2	0.01	001,002,003,004,021,024
VI	52	1,2-Dichloroethane	107-06-2	0.100	001,002,003,004,021,024
VI	53	2,2'-dichloro-4,4'-methylenedianiline	101-14-4	0.100	001,002,003,004,021,024
VI	54	2-Methoxyaniline; o-Anisidine	90-04-0	0.100	001,002,003,004,021,024
VI	55	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	0.100	001,002,003,004,021,024
VI	56	Aluminosilicate Refractory Ceramic Fibres *	650-017-00-8 (Index no.)	0.01	001,002,003,004,021,024
VI	57	Arsenic acid*	7778-39-4	0.01	001,002,003,004,021,024
VI	58	Bis(2-methoxyethyl) ether	111-96-6	0.100	001,002,003,004,021,024
VI	59	Bis(2-methoxyethyl) phthalate	117-82-8	0.100	001,002,003,004,021,024
VI	60	Calcium arsenate*	7778-44-1	0.01	001,002,003,004,021,024
VI	61	Dichromium tris(chromate) *	24613-89-6	0.01	001,002,003,004,021,024
VI	62	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	0.100	001,002,003,004,021,024
VI	63	Lead diazide, Lead azide*	13424-46-9	0.01	001,002,003,004,021,024
VI	64	Lead dipicrate*	6477-64-1	0.01	001,002,003,004,021,024



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
VI	65	Lead styphnate*	15245-44-0	0.01	001,002,003,004,021,0 24
VI	66	N,N-dimethylacetamide	127-19-5	0.100	001,002,003,004,021,0 24
VI	67	Pentazinc chromate octahydroxide*	49663-84-5	0.01	001,002,003,004,021,0 24
VI	68	Phenolphthalein	77-09-8	0.100	001,002,003,004,021,0 24
VI	69	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	0.01	001,002,003,004,021,0 24
VI	70	Trilead diarsenate*	3687-31-8	0.01	001,002,003,004,021,0 24
VI	71	Zirconia Aluminosilicate Refractory Ceramic Fibres*	650-017-00-8 (Index no.)	0.01	001,002,003,004,021,0 24
VII	72	[4-[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)§	2580-56-5	0.100	001,002,003,004,021,0 24
VII	73	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)§	548-62-9	0.100	001,002,003,004,021,0 24
VII	74	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	0.100	001,002,003,004,021,0 24
VII	75	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	0.100	001,002,003,004,021,0 24
VII	76	4,4'-bis(dimethylamino) benzophenone (Michler's Ketone)	90-94-8	0.100	001,002,003,004,021,0 24
VII	77	4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol§	561-41-1	0.100	001,002,003,004,021,0 24
VII	78	Diboron trioxide*	1303-86-2	0.01	001,002,003,004,021,0 24
VII	79	Formamide	75-12-7	0.100	001,002,003,004,021,0 24



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
VII	80	Lead(II) bis(methanesulfonate)*	17570-76-2	0.01	001,002,003,004,021,0 24
VII	81	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	0.100	001,002,003,004,021,0 24
VII	82	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9	0.100	001,002,003,004,021,0 24
VII	83	α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) §	6786-83-0	0.100	001,002,003,004,021,0 24
VII	84	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	0.100	001,002,003,004,021,0 24
VIII	85	[Phthalato(2-)]dioxotrilead*	69011-06-9	0.01	001,002,003,004,021,0 24
VIII	86	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	0.100	001,002,003,004,021,0 24
VIII	87	1,2-Diethoxyethane	629-14-1	0.100	001,002,003,004,021,0 24
VIII	88	1-Bromopropane	106-94-5	0.100	001,002,003,004,021,0 24
VIII	89	3-Ethyl-2-methyl-2- (3-methylbutyl)-1,3-oxazolidine	143860-04-2	0.100	001,002,003,004,021,0 24
VIII	90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	0.100	001,002,003,004,021,0 24
VIII	91	4,4'-Methylenedi-o-toluidine	838-88-0	0.100	001,002,003,004,021,0 24
VIII	92	4,4'-Oxydianiline and its salts	101-80-4	0.100	001,002,003,004,021,0 24
VIII	93	4-Aminoazobenzene	60-09-3	0.100	001,002,003,004,021,0 24
VIII	94	4-Methyl-m-phenylenediamine	95-80-7	0.100	001,002,003,004,021,0 24
VIII	95	4-Nonylphenol, branched and linear	-	0.100	001,002,003,004,021,0 24



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
VIII	96	6-Methoxy-m-toluidine	120-71-8	0.100	001,002,003,004,021,024
VIII	97	Acetic acid, lead salt, basic*	51404-69-4	0.01	001,002,003,004,021,024
VIII	98	Biphenyl-4-ylamine	92-67-1	0.100	001,002,003,004,021,024
VIII	99	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	0.100	001,002,003,004,021,024
VIII	100	Cyclohexane-1,2-dicarboxylic anhydride, cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7, 13149-00-3, 14166-21-3	0.100	001,002,003,004,021,024
VIII	101	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	0.100	001,002,003,004,021,024
VIII	102	Dibutyltin dichloride (DBTC)	683-18-1	0.100	001,002,003,004,021,024
VIII	103	Diethyl sulphate	64-67-5	0.100	001,002,003,004,021,024
VIII	104	Diisopentylphthalate	605-50-5	0.100	001,002,003,004,021,024
VIII	105	Dimethyl sulphate	77-78-1	0.100	001,002,003,004,021,024
VIII	106	Dinoseb	88-85-7	0.100	001,002,003,004,021,024
VIII	107	Dioxobis(stearato)trilead*	12578-12-0	0.01	001,002,003,004,021,024
VIII	108	Fatty acids, C16-18, lead salts*	91031-62-8	0.01	001,002,003,004,021,024
VIII	109	Furan	110-00-9	0.100	001,002,003,004,021,024
VIII	110	Henicosafuoroundecanoic acid	2058-94-8	0.100	001,002,003,004,021,024



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
VIII	111	Heptacosafuorotetradecanoic acid	376-06-7	0.100	001,002,003,004,021,024
VIII	112	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	☆	0.100	001,002,003,004,021,024
VIII	113	Lead bis(tetrafluoroborate)*	13814-96-5	0.01	001,002,003,004,021,024
VIII	114	Lead cyanamidate*	20837-86-9	0.01	001,002,003,004,021,024
VIII	115	Lead dinitrate*	10099-74-8	0.01	001,002,003,004,021,024
VIII	116	Lead monoxide*	1317-36-8	0.01	001,002,003,004,021,024
VIII	117	Lead oxide sulfate*	12036-76-9	0.01	001,002,003,004,021,024
VIII	118	Lead tetroxide (orange lead)*	1314-41-6	0.01	001,002,003,004,021,024
VIII	119	Lead titanium trioxide*	12060-00-3	0.01	001,002,003,004,021,024
VIII	120	Lead titanium zirconium oxide*	12626-81-2	0.01	001,002,003,004,021,024
VIII	121	Methoxyacetic acid	625-45-6	0.100	001,002,003,004,021,024
VIII	122	Methyloxirane (Propylene oxide)	75-56-9	0.100	001,002,003,004,021,024
VIII	123	N,N-dimethylformamide	68-12-2	0.100	001,002,003,004,018,019,020,021,024
VIII	124	N-Methylacetamide	79-16-3	0.100	001,002,003,004,021,024
VIII	125	N-Pentyl-isopentylphthalate	776297-69-9	0.100	001,002,003,004,021,024
VIII	126	o-Aminoazotoluene	97-56-3	0.100	001,002,003,004,021,024



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Test Report (SVHC)

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Full list of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
VIII	127	o-Toluidine	95-53-4	0.100	001,002,003,004,021,0 24
VIII	128	Pentacosfluorotridecanoic acid	72629-94-8	0.100	001,002,003,004,021,0 24
VIII	129	Pentalead tetraoxide sulphate*	12065-90-6	0.01	001,002,003,004,021,0 24
VIII	130	Pyrochlore, antimony lead yellow*	8012-00-8	0.01	001,002,003,004,021,0 24
VIII	131	Silicic acid, barium salt, lead-doped*	68784-75-8	0.01	001,002,003,004,021,0 24
VIII	132	Silicic acid, lead salt*	11120-22-2	0.01	001,002,003,004,021,0 24
VIII	133	Sulfurous acid, lead salt, dibasic*	62229-08-7	0.01	001,002,003,004,021,0 24
VIII	134	Tetraethyllead*	78-00-2	0.01	001,002,003,004,021,0 24
VIII	135	Tetralead trioxide sulphate*	12202-17-4	0.01	001,002,003,004,021,0 24
VIII	136	Tricosfluorododecanoic acid	307-55-1	0.100	001,002,003,004,021,0 24
VIII	137	Trilead bis(carbonate)dihydroxide (basic lead carbonate)*	1319-46-6	0.01	001,002,003,004,021,0 24
VIII	138	Trilead dioxide phosphonate*	12141-20-7	0.01	001,002,003,004,021,0 24
IX	139	4-Nonylphenol, branched and linear, ethoxylated	-	0.100	001,002,003,004,021,0 24
IX	140	Ammonium pentadecafluorooctanoate (APFO)**	3825-26-1	0.100	001,002,003,004,021,0 24
IX	141	Cadmium oxide*	1306-19-0	0.01	001,002,003,004,021,0 24
IX	142	Cadmium*	7440-43-9	0.01	001,002,003,004,021,0 24



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
IX	143	Dipentyl phthalate (DPP)	131-18-0	0.100	001,002,003,004,021,024
IX	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	0.100	001,002,003,004,021,024
X	145	Cadmium sulphide*	1306-23-6	0.01	001,002,003,004,021,024
X	146	Diethyl phthalate	84-75-3	0.100	001,002,003,004,021,024
X	147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	0.100	001,002,003,004,021,024
X	148	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	0.100	001,002,003,004,021,024
X	149	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7	0.100	001,002,003,004,021,024
X	150	Lead di(acetate)*	301-04-2	0.01	001,002,003,004,021,024
X	151	Triethyl phosphate	25155-23-1	0.100	001,002,003,004,021,024
XI	152	1,2-Benzenedicarboxylic acid, diethyl ester, branched and linear	68515-50-4	0.100	001,002,003,004,021,024
XI	153	Cadmium chloride*	10108-64-2	0.01	001,002,003,004,021,024
XI	154	Sodium perborate; perboric acid, sodium salt*	-	0.01	001,002,003,004,021,024
XI	155	Sodium peroxometaborate*	7632-4-4	0.01	001,002,003,004,021,024
XII	156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.100	001,002,003,004,021,024



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
XII	157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	0.100	001,002,003,004,021,024
XII	158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	0.100	001,002,003,004,021,024
XII	159	Cadmium fluoride *	7790-79-6	0.01	001,002,003,004,021,024
XII	160	Cadmium sulphate *	10124-36-4/31119-53-6	0.01	001,002,003,004,021,024
XII	161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate & 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 & MOTE)	15571-58-1,27107-89-7	0.100	001,002,003,004,021,024
XIII	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	68515-51-5,68648-93-1	0.100	001,002,003,004,021,024
XIII	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]	-	0.100	001,002,003,004,021,024
XIV	164	1,3-propanesultone	1120-71-4	0.100	001,002,003,004,021,024
XIV	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV-327)	3864-99-1	0.100	001,002,003,004,021,024
XIV	166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	0.100	001,002,003,004,021,024



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Full list of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
XIV	167	Nitrobenzene	98-95-3	0.100	001,002,003,004,021,0 24
XIV	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1,21049 -39-8,4149-60-4	0.100	001,002,003,004,021,0 24
XV	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	0.100	001,002,003,004,021,0 24
XVI	170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	0.100	001,002,003,004,021,0 24
XVI	171	4-Heptylphenol, branched and linear	-	0.100	001,002,003,004,021,0 24
XVI	172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7, 335-76-2, 3830-45-3	0.100	001,002,003,004,021,0 24
XVI	173	p-(1,1-dimethylpropyl)phenol	80-46-6	0.100	001,002,003,004,021,0 24
XVII	174	Perfluorohexane-1-sulphonic acid and its salts	-	0.100	001,002,003,004,021,0 24
XVIII	175	1,6,7,8,9,14,15,16,17,17,18,18-Dodecac hloropentacyclo[12.2.1.16,9.02,13.05,10] octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	0.100	001,002,003,004,021,0 24
XVIII	176	Benz[a]anthracene	56-55-3, 1718-53-2	0.100	001,002,003,004,021,0 24
XVIII	177	Cadmium nitrate*	10022-68-1, 10325-94-7	0.01	001,002,003,004,021,0 24
XVIII	178	Cadmium carbonate*	513-78-0	0.01	001,002,003,004,021,0 24
XVIII	179	Cadmium hydroxide*	21041-95-2	0.01	001,002,003,004,021,0 24
XVIII	180	Chrysene	218-01-9, 1719-03-5	0.100	001,002,003,004,021,0 24



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
XVIII	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]	-	0.100	001,002,003,004,021,024
XIX	182	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride)	552-30-7	0.100	001,002,003,004,021,024
XIX	183	Benzo[ghi]perylene	191-24-2	0.100	001,002,003,004,021,024
XIX	184	Decamethylcyclopentasiloxane (D5)	541-02-6	0.100	001,002,003,004,021,024
XIX	185	Dicyclohexyl phthalate (DCHP)	84-61-7	0.100	001,002,003,004,021,024
XIX	186	Disodium octaborate*	12008-41-2	0.01	001,002,003,004,021,024
XIX	187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	0.100	001,002,003,004,021,024
XIX	188	Ethylenediamine(EDA)	107-15-3	0.100	001,002,003,004,021,024
XIX	189	Lead*	7439-92-1	0.01	001,002,003,004,021,024
XIX	190	Octamethylcyclotetrasiloxane (D4)	556-67-2	0.100	001,002,003,004,021,024
XIX	191	Terphenyl, hydrogenated	61788-32-7	0.100	001,002,003,004,021,024
XX	192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	0.100	001,002,003,004,021,024
XX	193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	0.100	001,002,003,004,021,024
XX	194	Benzo[k]fluoranthene	207-08-9	0.100	001,002,003,004,021,024
XX	195	Fluoranthene	206-44-0 93951-69-0	0.100	001,002,003,004,021,024



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Batch	No.	Substance Name	CAS No.	RL (%)	Sample ID
XX	196	Phenanthrene	85-01-8	0.100	001,002,003,004,021,024
XX	197	Pyrene	129-00-0 1718-52-1	0.100	001,002,003,004,021,024
Add.	198	4-tert-butylphenol	98-54-4	0.100	001,002,003,004,021,024



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SEE ATTACHMENT:

SNP4-350/500/700ILP SNP6-24VF SNP6-12VF(UE) SNP6-350/700IL F15-350 SNP20-12/24VFP SP50-12VFT SNP6-12/24VFP
SNP6-350/700IFP SNP30-24VF-3, SNP8-500/700IL-1, SNP8-12/24VL SNP8-12/24VL-1 SNP8-12/24VLW SNC185-36A
SNP10-350/450ILT SNP12-12/24VFP SNP12-350/700IFP SNP12-12/24VF SNP50-46VF SNP12-12/24VF(UL) SE100-12VL
SNP12-12/24VLW SNP60-12/24VFP SNP13-320/700IL SNP15-400IL SNC15-12VL SNP15-24VL SNP15-12/24VL-1
SNP15-350/700IL SNP15-350/700IL-1 SNP15-12/24VF 15-12D 15-350, SNP15-350/700IF-1 SNP15-12VL(UL) SL60-12/24VF
SNP15-500IL(UL)-1 SNP15-350/700ILT SNP15-350/700ILT-1 SNP15-700ILT-2 SNP18-700ILT SNP18-700ILT(UL)
SNP18-350ILD2(UL) SNP20-24VF SP-01 SNP20-12/24VL SNP75-12VL(UE) SE150-12/24VL SNC15-12VL SNP100-12/24VLP
SNP100-12/24VLP-1 SA50-1200ILC SPG200-12/24VLP SNP60-12VF-1 SPG250-12/24VLP SE100-12VL SE30-12/24VL
SE60-12/24VL SNP30-12/24VL-1 SNC60-24VF-1 SNP45-24VF-1 SNP100-12/24VFP SL75-12/24VF SP75-12/24VLT
SE150-12/24VL SNP8-24VL-2 SNP30-24VF(UL)-C SNP150-12/24VL SNP75-24VL(UE)-C SNP60-12/24FD-1 SNP75-12/24VF-1
SP30-520IL(UE)-1 SNP30-12/24VFP SNP50-12/24VF-1 SNP60-12/24VFP-1 SNP30-12/24VF-2 SP30-12/24VFT SNP150-12/24VF
SP36-12/24VFT SNP320-12VL SL45-12/24VF(UE) SNP50-12/24VF-2 SNP15-12/24VF-1 SNP100-12/24VLP(UL)
SNP75-12/24VL(UL)-J SNP15-24VL(UL), SNP15-12VL SPE200-12/24VLP SPH600-12/24A(UE) 806-6 SNP8-12VL-2
SNP15-12/24VFP SNP60-12/24VF-1(UL)
, SPH80-15/24/36/48A, SPH80-12/15/24/36/48B/D, SPH60-12/15/24/36/48A/B/D, HAL30-12WR, SPF90-12A
SPH100-15/24/36/48A, SPH100-12/15/24/36/48B/D, SNP75-24VFP, SPH60-12/15/24/36/48D, SNP40-12VF, SPF40-12A
SNP150-24VF-1, SPH150-12/15/24/36/48A/B/D, SPH250-12/15/24/36/48A/B/D, SE30-12/24VL
SPH40-12/15/24/36/48A/D, SPH40-15/24/36/48B,
SE60-12/24VL, SPH185-12/15/24/36/48A/B/D, SPF90-12/15/24/36/48A/B, SPF40-12/15/24/36/48A/B, SPH100-12A
SNP200-12VL SNP8-350IL-1, SPF60-12/15/24/36/48A/B, SNP200-24VL, SPH320-15/24/36/48/54A SE100-24VL SP96-24VLD
SNP24-24VLW SPH80-12A SNP24-350/500/700ILW, SPH600-12/24/36/48/54A/B, SNP60-12VF, SPH480-12/24/36/48/54A/B
SPH320-12A 14-320D SE30-12VL SNP60-12/24VF-1(UL), SP-48CV, SNP100-12/24VF-1(UL), SNP250-12/24VL, SNP100-12VFP-1
SNP150-12VL SNP75-12VFP 36-12D SNP30-12VF-3SP25-12/24VFT(UL), YAL-24-100WNT, SNP100-12/24VF
, SNP150-12/24VFP-1, YAL-24-150WNT, SNP30-12/24VF SNP30-12/24VF-1 SNP30-12/24VL SNP30-500/700IF SNP30-12/24VF(UL)
SPG100-12/24/VLP SP30-700IL(UE) SP30-950IL(UE) SNP50-12/24VF SNP50-12/24VF(UE) SL150-12/24VF(UE)
SL100-12/24VF(UE) SNP150-12VF-1 FK100-24VF-1 SNP20-12/24VF-E SNP75-12/24VL-E SNP100-12/24VL-E YAL-24-75WNT
YAL-24-30WNT SP15-300ILT SNP10-300ILT SP24-300ILT SNP12-24VF-1,
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SP36-350/500/700ILT
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SP10-350/700ILT-1, SP15-350/500/700ILT, SC1000A-4820WU, SNC30-24/38VF, SPG320-12/24VLP, SNP150-12/36/48VLP
SNP6-12VF SNP10-350ILT-1, SNP12-350/500/700IF/IF(UL), SNP8-350/500/700IL/ILW, SNP6-350/500/700IF/
IF(UE), SNP15-350/500/700IF SNP15-350/500/700ILW, SNP12-350/500/700ILW, SNP8-350/500/700IL-2 SNP20-12VF
SPF60-12/15/24/36/48A/B SNP75-24VL(UE), SNP15-350/500/700IFP SP24-500/700/1050ILT SNP100-12/24/36VL(UE)
SNP30-350/500/700IF-1 SNP200-12/24/36/48VLP SP75-AA/AB/BA/BB/CA/CB SNP100-12/24VF-1/1S/(UE)-1
SPF90-12/15/24/36/48A/B, SPF40-15/24/36/48A, SPF40-12/15/24/36/48B SNP60-24VF SNP40-24VF SP50-24VFT SPH40-12B
SNP100-24VFP-1, SNP30-24VF(UL)-J, SP36-1050ILT SL150-12/24VF(UE)
SNP45-12VF-1, SNP30-1050/1400/2100IF, SP30-350/700/950/1050/1400IL(UE)-1, SP30-350/700/950/1050/1400IL(UE),
SNP40-500/700/1050/1400/2100IF, SNP60-500/700/1050/1400/2100IF, SNP50-700/950/900/1050/500/2100/1400IF
SP24-350ILT SNP75-700/950/1050/1400/2100IL(UE) SNP150-12/24VL



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SEE ATTACHMENT:

Significant improvements , SP75-700/950/1050/1400/2100IL (UE)

SNP100-700/1400/1050/2100/3600/4200ILP, SNP15-350/500/700IL (UL), SNP150-700/1050/1400/2100/3600/4200ILP, SPH320-12/15/24/36/48/54B SNP60-12/24VF-1Products significant improvements, SNP6-350/500/700IF (UE)-1 SNP12-12VF-1

SNP150-24VLP SNP6-24VF (UE) SNP18-350ILD2 (UL) SNC20-24VF (009-104) SP96-24VLD-C SNP60-12/24VF-2

SNP20-12/24VL (UL) SNP20-350/500/700IL (UL) SPA320-12/24VFP SNP12-350/500/700IF-1 SPA150-12/24VFP SPA200-12/24VFP

SLP60-12/24VFP (UE) SL100-12/24VF (UE) SPA250-12/24VFP SL45-12/24VF (UE) SNP60-12/24VF (UE) SNP40-12/24VF (UE)

SNP30-24VF (UL)-C SNP75-24VL (UE)-C SP96-24VLP-C SNP60-12/24VF-2 15-350D SNP8-12VL-1 SNP20-350/500/700IL (UL)

SPA320-12/24VFP SNP12-350/500/7000IF-1 SPA150-12/24VFP SPA200-12/24VFP SS60-12/24VLP SL240-24VF

SLP100-12/24VFP (UE) SNP30-12/24VF (UE) SP10-12VLT SP100-12/24VLT SL100-24/48VF SL100-48VF (UE) SP150-12/24VLT

SL240-48VF SL200-24/48VF SL150-48VF (UE) SS60-12/24VF SS30-12/24VF SL60-12/24VF-E SNP20-12/24VF-1

SNC10-230/350ILT SP75-zigbee-AA colloid Y/H/F/J/A



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SGS Sample ID	Photo No.	Material Description
001	P1	White plastic shell
001	P2	White plastic piece
001	P3	White plastic piece
001	P4	White plastic jacket
001	P5	Brown plastic jacket
001	P6	Blue plastic jacket
001	P7	Yellow plastic jacket
001	P8	Blue plastic jacket
001	P9	Brown plastic jacket
001	P10	Black plastic jacket
002	P11	Gray rubber block
002	P12	White rubber block
002	P13	Transparent plastic sheath
002	P14	White plastic block
002	P15	Yellow plastic piece



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SGS Sample ID	Photo No.	Material Description
002	P16	Black plastic sheath
002	P17	Black plastic sheath
002	P18	Black rubber ring
002	P19	White plastic piece
002	P20	Orange plastic piece
002	P21	White plastic piece
003	P22	Green PCB body
003	P23	Green PCB body
003	P24	Green PCB body
003	P25	Black body
003	P26	Blue capacitor body
003	P27	Yellow capacitor body
003	P28	Gray capacitor body
003	P29	Blue capacitor body
003	P30	Black capacitor body



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SGS Sample ID	Photo No.	Material Description
003	P31	Brown capacitor body
003	P32	Brown capacitor body
003	P33	Black capacitor body
003	P34	Black plastic block
003	P35	Black ferrite
004	P36	Silvery metal block
004	P37	Copper-colored metal block
004	P38	Silvery metal block
004	P39	Silvery metal block
004	P40	Silvery metal piece
004	P41	Silvery metal screw
004	P42	Silvery metal screw
004	P43	Copper-colored metal core
004	P44	Silvery metal soldering tin

SGS Sample ID	Photo No.	Material Description
021	P45	Black rubber
021	P46	Gray rubber
021	P47	Gray rubber
021	P48	Gray rubber
021	P49	Yellow rubber



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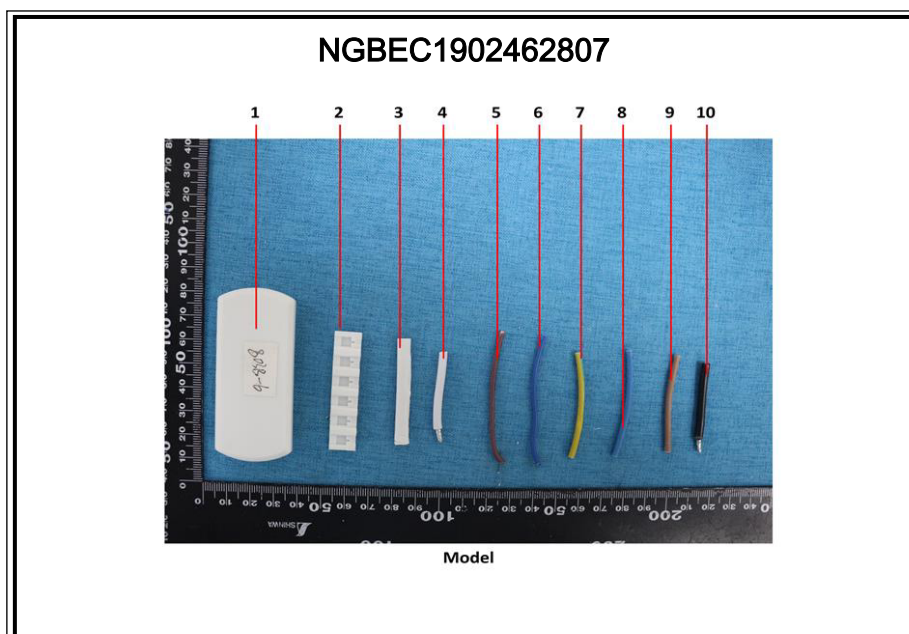
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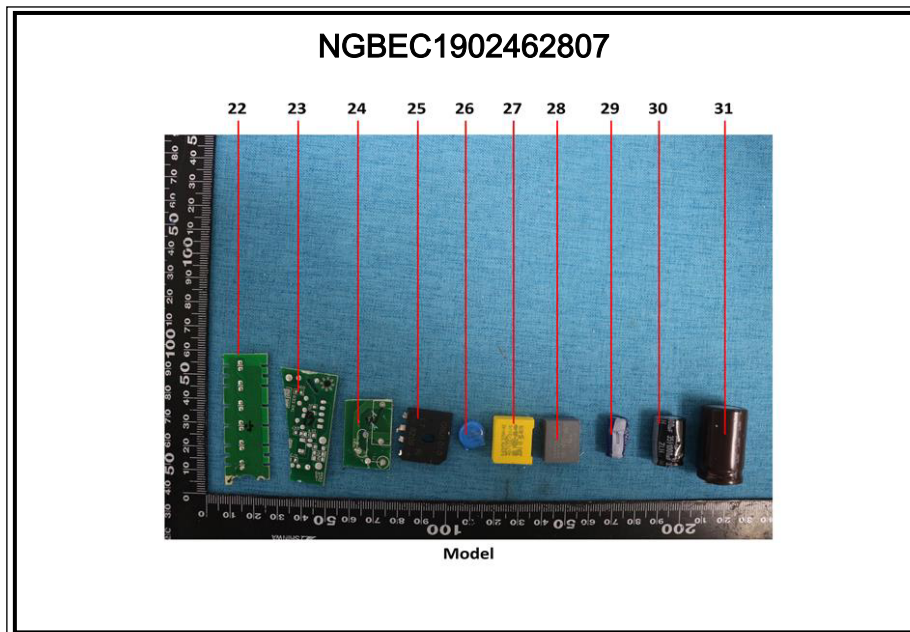
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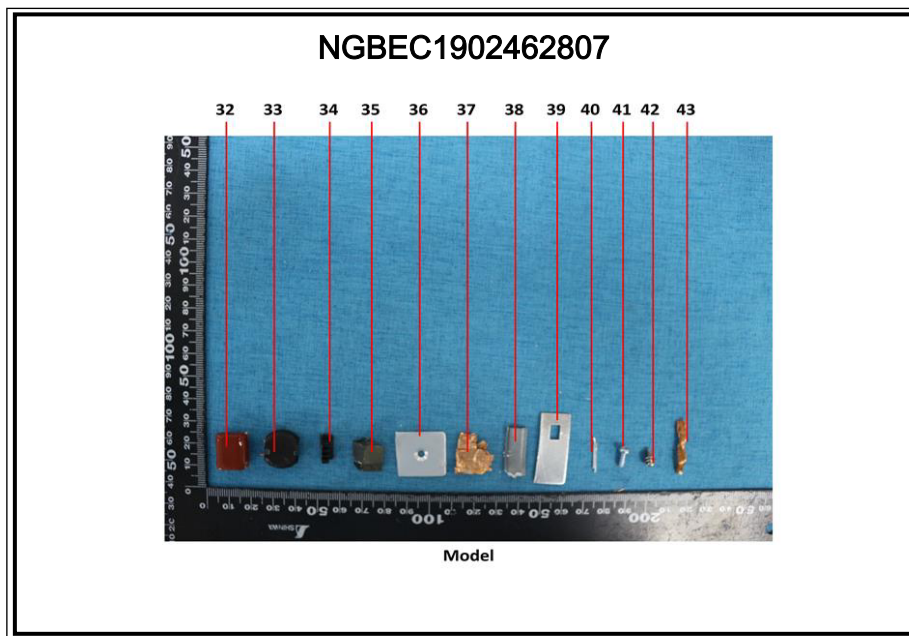
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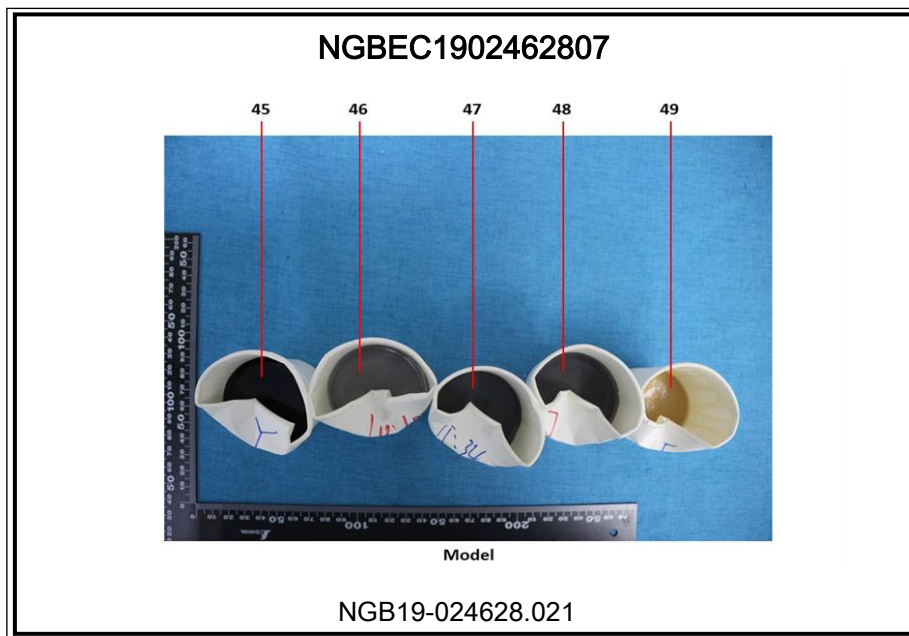
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