

Maxwell Technologies, Inc.  
3888 Calle Fortunada  
San Diego, CA 92123

8 November 2018

**RE: Standard Cell (2.7V-3F~50F) REACH Declaration – External**

To Our Valued Customers:

The EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation (EC No. 1907/2006) entered into force on June 1, 2007, and will be fully implemented over an 11-year period. It seeks to manage the risks posed by chemicals and provide appropriate safety information to their users.

Maxwell Technologies, Inc., along with its affiliates, vendors and partners, supports the REACH objective of ensuring the protection of human health and the environment as well as the free movement of goods and works with our supply chain to meet our obligations under the regulation.

REACH treats articles (objects, such as electronic equipment) differently than chemicals and chemical mixtures. As of the date of this declaration, the products in Table 1 below, which are manufactured for sale and distribution by Maxwell, are not intended to release any of the REACH-regulated substances. Additionally, no regulated substance within these products exceeds the regulatory threshold of 0.1% by weight of the listed article. As such, Maxwell's primary obligation under REACH is communication of information about regulated substances in our products to users, in accordance with Article 33 of the regulation.

**Table 1**

BCAP0003 P270 S01 (ESH SR-0003C0002R7)	BCAP0003 P270 S12	BCAP0005 P270 S01 (ESH SR-0005C0002R7)	BCAP0010 P270 S01 (ESH SR-0010C0002R7)
BCAP0010 P270 S12	BCAP0025 P270 S01 (ESH SR-025C0002R7)	BCAP0025 P270 S12	BCAP0050 P270 S01 (ESH SR-0050C0-2R7)

The above statements are based upon one of the following techniques employed by Maxwell, its affiliates, vendors, or partners: certification at accredited test facilities; or through similarity in construction and materials used. REACH test report prepared for Maxwell by an accredited test facility is attached.

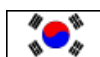
For additional questions or information, please contact your Maxwell Key Account Manager.



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# Test Report

No. F690101/LF-CTSAYAA18-46033

Issued Date: 2018. 08. 24 Page 1 of 17

**NESSCAP CO.,LTD**

17, Dongtangiheung-ro 681beon-gil, Giheung-gu  
Yongin-si, Gyeonggi-do  
Korea



The following sample(s) was/were submitted and identified by/on behalf of the client as:-

**SGS File No.** : AYAA18-46033

**Product Name** : Ultracapacitor

**Item/Part Name** : BCAP0050 P270 S01(ESHSR-0050C0-002R7)

**Client reference data** : BCAP0003 P270 S01(ESHSR-0003C0-002R7)  
BCAP0003 P270 S12  
BCAP0005 P270 S01(ESHSR-0005C0-002R7)  
BCAP0010 P270 S01(ESHSR-0010C0-002R7)  
BCAP0010 P270 S12  
BCAP0025 P270 S01(ESHSR-0025C0-002R7)  
BCAP0025 P270 S12

**Received Date** : 2018. 08. 16

**Test Period** : 2018. 08. 16 ~ 2018. 08. 24

**Test Requested** : One hundred- Ninety one (191) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on June 27, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH.

**Report Comments** : By the applicant's request, item No.s/part No.s & client reference information are stated/added on report.

**Test Method** : Please refer to next page(s).

**Test Result(s) Summary** : Please refer to next page(s).  
According to the specified scope and evaluation screening, the test results of SVHC are  $\leq 0.1\%$  (w/w) in the articles of the submitted sample.

SGS Korea Co., Ltd

Jeff Jang / Chemical Lab Mgr

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Member of the SGS Group (Société Générale de Surveillance)



# Test Report

No. F690101/LF-CTSAYAA18-46033

Issued Date: 2018. 08. 24 Page 2 of 17

## Test Method:

SGS In-House method - Analyzed by ICP-OES, PLM, UV/VIS, LC/MS, GC/MS and colorimetric method

## Remarks:

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> (Candidate list)  
[http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p\\_p\\_id=substancetypelist\\_WAR\\_substanceportlet&p\\_p\\_lifecycle=0&p\\_p\\_state=normal&p\\_p\\_mode=view&p\\_p\\_col\\_id=column-1&p\\_p\\_col\\_pos=2&p\\_p\\_col\\_count=4&substancetypelis](http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p_p_id=substancetypelist_WAR_substanceportlet&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-1&p_p_col_pos=2&p_p_col_count=4&substancetypelis)  
(Proposals to identify SVHC consultations)  
This list is under evaluation by ECHA and may subject to change in the future.
2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 2 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 is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of **0.1 %** weight by weight (w/w).
3. 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.
4. 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.

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## Note:

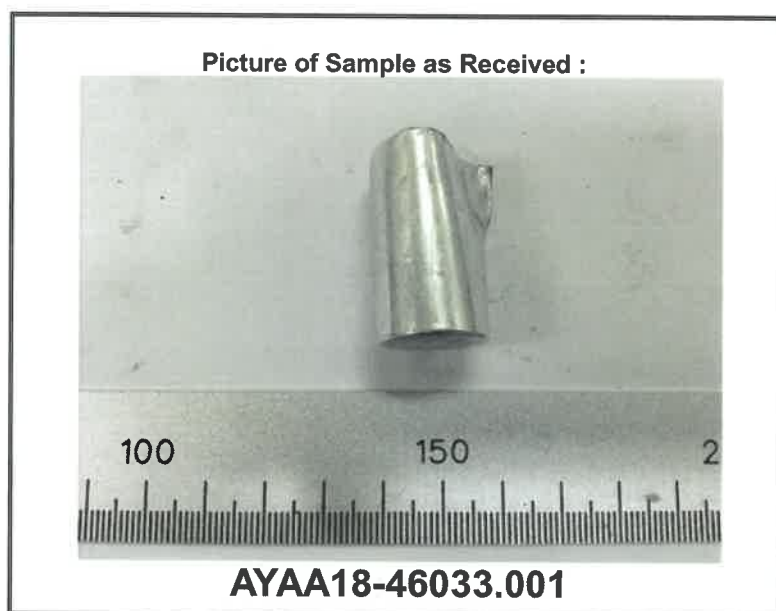
1. RL = Reporting Limit, 0.1% (w/w) = 1,000 ppm = 1,000 mg/kg
2. N.D. = Not detected (lower than RL)  
N.A. = Not applicable for respective material type.

The submitted sample was found to contain significant amount of specific element(s) of SVHC. Upon further test verification 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.

3. \*.The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website: [www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm](http://www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm)

The client is advised to review the chemical formulation to ascertain above metal substances present in the article.  
RL = 0.005% is evaluated for element (i.e. cobalt, arsenic, lead, sodium, chromium, chromium(VI), silicon, aluminum, zirconium, boron, and potassium respectively), except molybdenum RL=0.0005%

4. \*\*. -TGIC is one of the isomers for TGIC compounds and hence, tested together. The reported test result is based the proposed ratio as according to ECHA dossier.
5. \*\*\*.The sample was diluted with solvent because of matrix effect, so there could be slight increase in MDL and it may have an effect on RL.



\*\*\* End of Report \*\*\*

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# Test Report

No. F690101/LF-CTSAYAA18-46034

Issued Date: 2018. 08. 24 Page 1 of 17

**NESSCAP CO.,LTD**

17, Dongtangiheung-ro 681beon-gil, Giheung-gu  
Yongin-si, Gyeonggi-do  
Korea



The following sample(s) was/were submitted and identified by/on behalf of the client as:-

**SGS File No.** : AYAA18-46034

**Product Name** : Ultracapacitor

**Item/Part Name** : BCAP0050 P270 S01(ESHSR-0050C0-002R7)

**Client reference data** : BCAP0003 P270 S01(ESHSR-0003C0-002R7)  
BCAP0003 P270 S12  
BCAP0005 P270 S01(ESHSR-0005C0-002R7)  
BCAP0010 P270 S01(ESHSR-0010C0-002R7)  
BCAP0010 P270 S12  
BCAP0025 P270 S01(ESHSR-0025C0-002R7)  
BCAP0025 P270 S12

**Received Date** : 2018. 08. 16

**Test Period** : 2018. 08. 16 ~ 2018. 08. 24

**Test Requested** : One hundred- Ninety one (191) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on June 27, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH.

**Report Comments** : By the applicant's request, item No.s/part No.s & client reference information are stated/added on report.

**Test Method** : Please refer to next page(s).

**Test Result(s)** : Please refer to next page(s).

**Summary** : According to the specified scope and evaluation screening, the test results of SVHC are  $\leq 0.1\%$  (w/w) in the articles of the submitted sample.

SGS Korea Co., Ltd

Jeff Jang / Chemical Lab Mgr

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## Test Report

No. F690101/LF-CTSAYAA18-46034

Issued Date: 2018. 08. 24 Page 2 of 17

### Test Method:

SGS In-House method - Analyzed by ICP-OES, PLM, UV/VIS, LC/MS ,GC/MS and colorimetric method

### Remarks:

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> (Candidate list)  
[http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p\\_p=id=substancetypelist&p\\_p=lifecycle=0&p\\_p=state=normal&p\\_p=mode=view&p\\_p=column=1&p\\_p=col\\_pos=2&p\\_p=col\\_count=4&substancetypelis](http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p_p=id=substancetypelist&p_p=lifecycle=0&p_p=state=normal&p_p=mode=view&p_p=column=1&p_p=col_pos=2&p_p=col_count=4&substancetypelis)  
(Proposals to identify SVHC consultations)  
This list is under evaluation by ECHA and may subject to change in the future.
2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 2 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 is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of **0.1 %** weight by weight (w/w).
3. 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.
4. 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.

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### Note:

1. RL = Reporting Limit, 0.1% (w/w) = 1,000 ppm = 1,000 mg/kg

2. N.D. = Not detected (lower than RL)

N.A. = Not applicable for respective material type.

The submitted sample was found to contain significant amount of specific element(s) of SVHC. Upon further test verification 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.

3. \*.The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website: [www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm](http://www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm)

The client is advised to review the chemical formulation to ascertain above metal substances present in the article.

RL = 0.005% is evaluated for element (i.e. cobalt, arsenic, lead, sodium, chromium, chromium(VI), silicon, aluminum, zirconium, boron, and potassium respectively), except molybdenum RL=0.0005%

4. \*\*. -TGIC is one of the isomers for TGIC compounds and hence, tested together. The reported test result is based the proposed ratio as according to ECHA dossier.

5. \*\*\*.The sample was diluted with solvent because of matrix effect, so there could be slight increase in MDL and it may have an effect on RL.



\*\*\* End of Report \*\*\*

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# Test Report

No. F690101/LF-CTSAYAA18-46035R1

Issued Date: 2018. 08. 27

Page 1 of 18

## NESSCAP CO.,LTD

17, Dongtangiheung-ro 681beon-gil, Giheung-gu  
Yongin-si, Gyeonggi-do  
Korea



The following sample(s) was/were submitted and identified by/on behalf of the client as:-

SGS File No.	: AYAA18-46035R1		
Product Name	: Ultracapacitor		
Item/Part Name	: BCAP0050 P270 S01(ESHSR-0050C0-002R7)		
Client reference data	: BCAP0003 P270 S01(ESHSR-0003C0-002R7) BCAP0003 P270 S12 BCAP0005 P270 S01(ESHSR-0005C0-002R7) BCAP0010 P270 S01(ESHSR-0010C0-002R7) BCAP0010 P270 S12 BCAP0025 P270 S01(ESHSR-0025C0-002R7) BCAP0025 P270 S12		
Received Date	: 2018. 08. 16		
Test Period	: 2018. 08. 16 ~ 2018. 08. 27		
Test Requested	: One hundred- Ninety one (191) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on June 27, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH.		
Supersede/Referral	: The test report supercedes previous report number, "F690101/LF-CTSAYAA18-46035" issued by SGS Korea Co., Ltd.		
Report Comments	: By the applicant's request, item No.s/part No.s & client reference information are stated/added on report.		
Test Method	: Please refer to next page(s).		
Test Result(s)	: Please refer to next page(s).		
Summary	<table><tr><td>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 <math>\leq</math> 0.1% (w/w) in the articles of the submitted sample.</td><td>PASS</td></tr></table>	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
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		

SGS Korea Co., Ltd

Jeff Jang / Chemical Lab Mgr

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Member of the SGS Group (Société Générale de Surveillance)

## Remarks:

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> (Candidate list)

These lists are under evaluation by ECHA and may subject to change in the future.

[http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p\\_p=id=substancetypelist&WAR\\_substanceportlet&p\\_p=lifecycle=0&p\\_p=state=normal&p\\_p=mode=view&p\\_p=col\\_id=column-1&p\\_p=col\\_pos=2&p\\_p=col\\_count=4&substancetypelis](http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p_p=id=substancetypelist&WAR_substanceportlet&p_p=lifecycle=0&p_p=state=normal&p_p=mode=view&p_p=col_id=column-1&p_p=col_pos=2&p_p=col_count=4&substancetypelis)

(Proposals to identify SVHC consultations)

2. Concerning article(s):

In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 2 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 is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of **0.1 %** weight by weight (w/w).

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.

3. Concerning material(s):

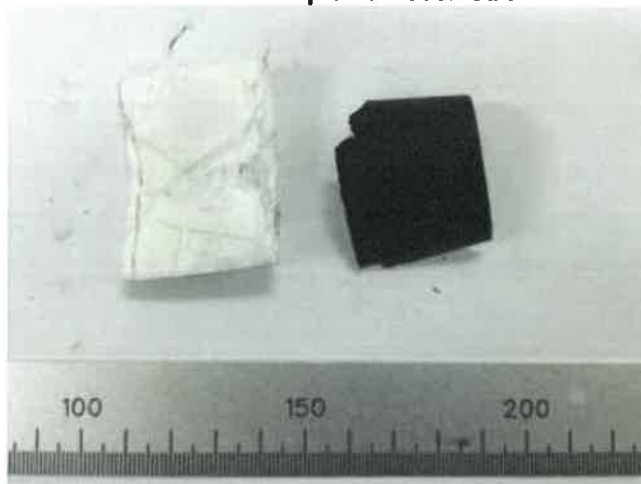
Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. 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.

4. 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.

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Picture of Sample as Received :



**AYAA18-46035R1.001**

\*\*\* End of Report \*\*\*

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# Test Report

No. F690101/LF-CTSAYAA18-46036

Issued Date: 2018. 08. 27 Page 1 of 17

**NESSCAP CO.,LTD**

17, Dongtangiheung-ro 681beon-gil, Giheung-gu  
Yongin-si, Gyeonggi-do  
Korea



The following sample(s) was/were submitted and identified by/on behalf of the client as:-

**SGS File No.** : AYAA18-46036

**Product Name** : Ultracapacitor

**Item/Part Name** : BCAP0050 P270 S01(ESHSR-0050C0-002R7)

**Client reference data** : BCAP0003 P270 S01(ESHSR-0003C0-002R7)  
BCAP0003 P270 S12  
BCAP0005 P270 S01(ESHSR-0005C0-002R7)  
BCAP0010 P270 S01(ESHSR-0010C0-002R7)  
BCAP0010 P270 S12  
BCAP0025 P270 S01(ESHSR-0025C0-002R7)  
BCAP0025 P270 S12

**Received Date** : 2018. 08. 16

**Test Period** : 2018. 08. 16 ~ 2018. 08. 27

**Test Requested** : One hundred- Ninety one (191) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on June 27, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH.

**Report Comments** : By the applicant's request, item No.s/part No.s & client reference information are stated/added on report.

**Test Method** : Please refer to next page(s).

**Test Result(s)** : Please refer to next page(s).

**Summary** : According to the specified scope and evaluation screening, the test results of SVHC are ≤ 0.1% (w/w) in the articles of the submitted sample.

SGS Korea Co., Ltd

Jeff Jang / Chemical Lab Mgr

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F416 version 3

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## Test Report

No. F690101/LF-CTSAYAA18-46036

Issued Date: 2018. 08. 27 Page 2 of 17

### Test Method:

SGS In-House method - Analyzed by ICP-OES, PLM, UV/VIS, LC/MS, GC/MS and colorimetric method

### Remarks:

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/quest/candidate-list-table> (Candidate list)  
[http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p\\_p id=substancetypelist WAR substanceportlet&p\\_p lifecycle=0&p\\_p state=normal&p\\_p mode=view&p\\_p col id=column-1&p\\_p col pos=2&p\\_p col count=4& substancetypelis](http://echa.europa.eu/proposals-to-identify-substances-of-very-high-concern-previous-consultations?p_p id=substancetypelist WAR substanceportlet&p_p lifecycle=0&p_p state=normal&p_p mode=view&p_p col id=column-1&p_p col pos=2&p_p col count=4& substancetypelis)  
(Proposals to identify SVHC consultations)  
This list is under evaluation by ECHA and may subject to change in the future.
2. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 2 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 is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance is present in those articles above a concentration of **0.1 %** weight by weight (w/w).
3. 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.
4. 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.

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**Note:**

1. RL = Reporting Limit, 0.1% (w/w) = 1,000 ppm = 1,000 mg/kg

2. N.D. = Not detected (lower than RL)

N.A. = Not applicable for respective material type.

The submitted sample was found to contain significant amount of specific element(s) of SVHC. Upon further test verification 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.

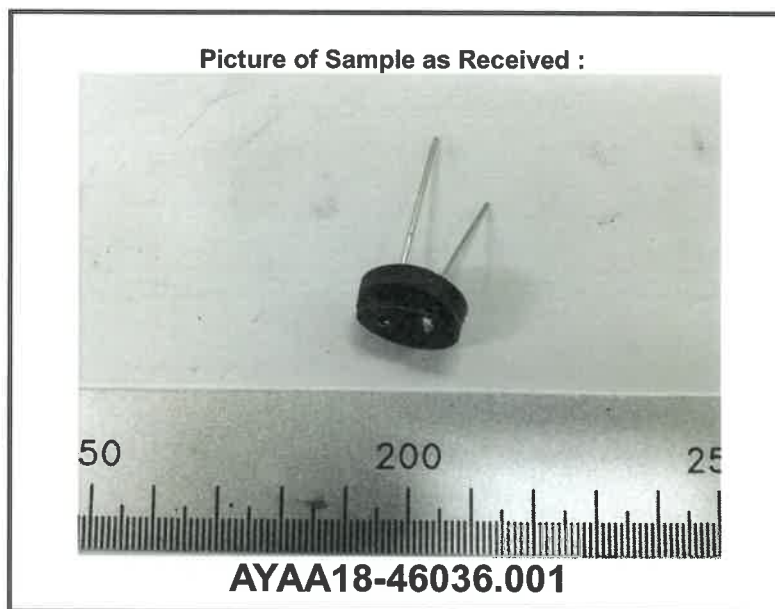
3. \*.The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website: [www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm](http://www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm)

The client is advised to review the chemical formulation to ascertain above metal substances present in the article.

RL = 0.005% is evaluated for element (i.e. cobalt, arsenic, lead, sodium, chromium, chromium(VI), silicon, aluminum, zirconium, boron, and potassium respectively), except molybdenum RL=0.0005%

4. \*\*. -TGIC is one of the isomers for TGIC compounds and hence, tested together. The reported test result is based the proposed ratio as according to ECHA dossier.

5. \*\*\*.The sample was diluted with solvent because of matrix effect, so there could be slight increase in MDL and it may have an effect on RL.



\*\*\* End of Report \*\*\*

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