

No. LPCI/04567/11

CTS Ref. CTS/11/0741/CSC

Date: 04/03/2011 Page: 1 of 5

CSC STEEL SDN BHD (228899-P) 180, KAWASAN INDUSTRI AYER KEROH, AYER KEROH, 75450 MELAKA, MALAYSIA

The following merchandise was (were) submitted and identified by the client as:

Sample Description : SPCC-SD, thickness 2.0mm

Sample Receiving Date : 28/02/2011

Testing Period : 28/02/2011 to 04/03/2011

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its

amendment directives.

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

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

Analysts : Ng Mei Kheng & Loi Woan Yee

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN B.Sc.(HONS) AMIC LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (<a href="https://www.sgs.com/terms">www.sgs.com/terms</a> and conditions for Electronic Documents (<a href="https://www.sgs.com/terms">www.sgs.com/terms</a> e-document.htm).

Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b.

The authenticity of this document may be verified at <a href="https://www.sgs.onsite.com/authentication">www.sgs.onsite.com/authentication</a>. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.



**Test Report** No. LPCI/04567/11 Date: 04/03/2011 Page: 2 of 5

CTS Ref. CTS/11/0741/CSC

Test results:

Test Part Description:

Sample Description : SPCC-SD, thickness 2.0mm

### RoHS Directive 2002/95/EC

Test Item(s):	Unit	Test Method	Results	MDL
Cadmium(Cd)	mg/kg	With reference to EPA Method 3050B, and performed by ICP-OES	N.D.	2
Lead (Pb)	mg/kg	With reference to EPA Method 3050B, and performed by ICP-OES	N.D.	2
Mercury (Hg)	mg/kg	With reference to EPA Method 3052, and performed by ICP-OES	N.D.	2
Hexavalent Chromium (CrVI)	mg/kg	With reference to JIS H 8625, and performed by UV-VIS Spectrophotometry	N.D.	2
Sum of PBBs	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	-
Monobromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Dibromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tribromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tetrabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Hexabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Pentabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Heptabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Octabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Nonabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Decabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN B.Sc.(HONS) AMIC LAB MANAGER



No. LPCI/04567/11 CTS Ref. CTS/11/0741/CSC Date: 04/03/2011 Page: 3 of 5

Test Item(s):	Unit	Test Method	Results	MDL
Sum of PBDEs	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	-
Monobromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Dibromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tribromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Tetrabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Pentabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Hexabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Heptabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Octabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Nonabromodiphenyl ether	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5
Decabromodiphenyl ether ##	mg/kg	With reference to EPA Method 3540C/3550C, and performed by GC-MS	N.D.	5

Note: (a) mg/kg = ppm; (0.1wt% = 1000ppm)

(b) N.D. = Not Detected

(c) MDL = Method Detection Limit

(d) ## = The exemption of DecaBDE in polymeric application according 2005/717/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE is included in the sum of PBDE after 01.07.2008

(e) - = Not regulated

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN B.Sc.(HONS) AMIC LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (<a href="https://www.sgs.com/terms.and.conditions.htm">www.sgs.com/terms.and.conditions.htm</a>) and Terms and Conditions for Electronic Documents (<a href="https://www.sgs.com/terms.e-document.htm">www.sgs.com/terms.e-document.htm</a>). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at <a href="https://www.sgsonsite.com/authentication.">www.sgsonsite.com/authentication.</a>. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.



No. LPCI/04567/11 CTS Ref. CTS/11/0741/CSC Date: 04/03/2011

Page: 4 of 5

**Test Part Description**:

Sample Description : SPCC-SD, thickness 2.0mm

## CSC STEEL SDN BHD LPCI/04567/11



SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN B.Sc.(HONS) AMIC LAB MANAGER

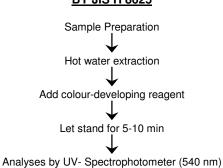
This document is issued by the Company subject to its General Conditions of Service (<a href="www.sgs.com/terms">www.sgs.com/terms</a> and conditions for Electronic Documents (<a href="www.sgs.com/terms</a> e-document.htm). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at <a href="www.sgs.oriste.com/authentication">www.sgs.oriste.com/authentication</a>, hy holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.



No. LPCI/04567/11 CTS Ref. CTS/11/0741/CSC Date: 04/03/2011

Page: 5 of 5

## 1. <u>DETERMINATION OF HEXAVALENT CHROMIUM</u> <u>BY JIS H 8625</u>



# 2. DETERMINATION OF LEAD CONTENT BY US EPA 3050B Cut sample in small pieces Weight sample (1.0g) into digestion vessel Acid digestion (HCl and HNO<sub>3</sub>) "Totally Dissolved" Filtration

# 3. MICROWAVE ASSISTED ACID DIGESTION OF SILICEOUS AND ORGANICALLY BASED METRICES (US EPA 3052)

Cut sample in small pieces

Weight sample (0.2-0.5g) into digestion vessel

Acid digestion (HF and HNO<sub>3</sub>) – Microwave

"Totally Dissolved"

Filtration

Analyses by ICP

## 4. <u>DETERMINATION OF CADMIUM CONTENT BY US</u> EPA 3050B

Analyses by ICP

EPA 3050B

Cut sample in small pieces

Weight sample (1.0g) into digestion vessel

Acid digestion (HCl and HNO<sub>3</sub>)

"Totally Dissolved"

Filtration

Analyses by ICP

## 5. DETERMINATION OF PBB/PBDE WITH GC-MS

Cut sample in small pieces

Weight sample (0.5-4g) into extraction thimble

Ultrasonic / Soxhlet Extraction with Toluene

Filter through 0.45 um membrane filter

Analyses by GC-MS (with appropriate dilution)

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

SGS LABORATORY SERVICES (M) SDN. BHD.

CHONG KIEN LEN B.Sc.(HONS) AMIC LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service (<a href="www.sgs.com/terms.and.conditions.htm">www.sgs.com/terms.and.conditions.htm</a>) and Terms and Conditions for Electronic Documents (<a href="www.sgs.com/terms.e-document.htm">www.sgs.com/terms.e-document.htm</a>). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at <a href="www.sgs.sgs.ite.com/authentication.htm">www.sgs.sgs.ite.com/authentication.htm</a>). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for three months only.