

# Test Report

No. CTSPN/00308/16  
CTS Ref. CTSPN/16/0060/Premium

Date: 21/02/2016

Page: 1 of 5

**PREMIUM MULTI INDUSTRIES SDN BHD**  
**15-1-16, MEDAN KAMPUNG RELAU, BAYAN POINT,**  
**11900 PENANG**

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

Sample Description : Himax Premium Lub TS-40  
Sample Receiving Date : 17/02/2016  
Testing Period : 17/02/2016 to 21/02/2016

---

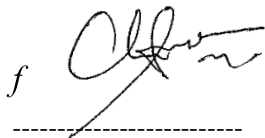
Test Requested : Selected test(s) as requested by client

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

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

Analysts : Tan Lin Wei & Hooi Yee Man

SGS LABORATORY SERVICES (M) SDN. BHD.



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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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. CTSPN/00308/16  
 CTS Ref. CTSPN/16/0060/Premium

Date: 21/02/2016

Page: 2 of 5

Test results:

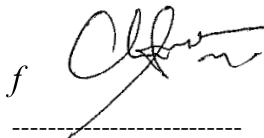
Test Part Description :

Sample Description : Himax Premium Lub TS-40

**RoHS Directive 2011/65/EU Annex II**

Test Item(s):	Unit	Test Method	Results	MDL
Cadmium(Cd)	mg/kg	With reference to EPA Method 3052, 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 EPA Method 3060A & 7196A, and performed by UV-VIS Spectrophotometry	N.D.	2
<b>Sum of PBBs</b>	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  
 SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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. CTSPN/00308/16

Date: 21/02/2016

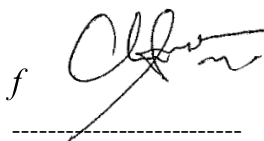
Page: 3 of 5

CTS Ref. CTSPN/16/0060/Premium

<b>Sum of PBDEs</b>	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) - = Not regulated  
 (e) Testing based on original basis

SGS LABORATORY SERVICES (M) SDN. BHD.



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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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. CTSPN/00308/16  
CTS Ref. CTSPN/16/0060/Premium

Date: 21/02/2016

Page: 4 of 5

### Test Part Description :

Sample Description : Himax Premium Lub TS-40

**PREMIUM MULTI INDUSTRIES SDN BHD**  
**CTSPN/00308/16**



SGS authenticate the photo on original report only

SGS LABORATORY SERVICES (M) SDN. BHD.

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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.

**1. DETERMINATION OF HEXAVALENT CHROMIUM BY METHOD US EPA 3060A/7196A**

Sample Preparation  
 ↓  
 Add colour-developing reagent  
 ↓  
 Acidify with H<sub>2</sub>SO<sub>4</sub>  
 ↓  
 Let stand for 5-10 min  
 ↓  
 Analyses by UV- Spectrophotometer (540 nm)

**2. DETERMINATION OF LEAD CONTENT BY US EPA 3050B**

Sample Preparation  
 ↓  
 Weight sample (1.0g) into digestion vessel  
 ↓  
 Acid digestion (HCl and HNO<sub>3</sub>)  
 ↓  
 "Totally Dissolved"  
 ↓  
 Filtration  
 ↓  
 Analyses by ICP

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

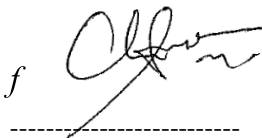
Sample Preparation  
 ↓  
 Weight sample (0.2-0.5g) into digestion vessel  
 ↓  
 Acid digestion (HF and HNO<sub>3</sub>) – Microwave  
 ↓  
 "Totally Dissolved"  
 ↓  
 Filtration  
 ↓  
 Analyses by ICP

**4. DETERMINATION OF PBB/PBDE WITH GC-MS**

Sample Preparation  
 ↓  
 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  
 SENIOR LAB MANAGER

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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.

