



**Test Report No.** 5966492

**Date :** 6-Aug-2024

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**Client : P.S.N. Chemical Co.,Ltd.**  
**29, 31 Soi Ekkachai 66/5**  
**Khlong Bang Phran, Bangbon, Bangkok 10150 Thailand**

The following sample(s) was/were submitted and identified by client as:

Sample Name : PRINTING INK  
Sample Description : PLI, PM,TPA-H, TEP-H, GTO, TPO, PTU, NT, PEX, NPS  
Material Type : INK  
Manufacturer/Vendor : P.S.N. CHEMICAL CO., LTD.  
Country of Origin : THAILAND

The following sample(s) was/were identified by SGS as:

SGS Sample No. : 6281697  
Sample Condition : Sample is contained in a glass bottle.  
Quantity Submitted : 1 bottle

Sample Receiving Date : 31-Jul-2024  
Testing Period : 01-Aug-2024 to 06-Aug-2024

**Signed for and on behalf of**  
**SGS (Thailand) Ltd.**

**Anchalee Wunnaphuek**  
**Acting - RSTS Lab Manager**



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**Test Requested** : In accordance with the EU RoHS Directive 2011/65/EU (Annex II) [amended by Directive (EU) 2015/863] .Selected test (s) as requested by client.

**Test Method** :

- (1) Inhouse method: SOP no. LBCC-19015 based on IEC-62321-5 edition 1.0:2013-6 for Lead content, Analyzed by ICP-OES. Microwave digestion method
- (2) Inhouse method: SOP no. LBCC-19015 based on IEC-62321-5 edition 1.0:2013-6 for Cadmium content, Analyzed by ICP-OES. Microwave digestion method
- (3) Inhouse method: SOP no. LBCC-19015 based on IEC-62321-4 edition 1.1:2017-07 for Mercury Content, Analyzed by ICP-OES.
- (4) Inhouse method LBCC-19018 based on IEC-62321-7-2 edition 1.0:2017-03, determination of Hexavalent Chromium by Colorimetric Method. and/or Inhouse method LBCC-19015 based on IEC-62321-5 edition 1.0:2013-6, determination of Chromium

**Test Results** : Please refer to next page.

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## TEST RESULTS

Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result (1)	MDL	RoHS Limit
Lead (Pb)	(1)	n.d.	2	1000
Cadmium (Cd)	(2)	n.d.	2	100
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium (Cr(VI))	(4)	n.d.	8	1000

Test Part Description  
Result (1) blue ink

Note :

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

(b) n.d. = Not Detected (<MDL)

(c) MDL = Method Detection Limit

(d) The result of Hexavalent Chromium (Cr(VI)) is "ND" as the result of Chromium (Cr) is "ND", and confirmation test of Hexavalent Chromium (Cr(VI)) is not required.

(e) If the Chromium (Cr) content is greater than the MDL of Hexavalent Chromium (Cr(VI)), confirmation test of Hexavalent Chromium (Cr(VI)) is required.

(f) Tested done on dried sample (Condition : 105 degree Celsius, 12 hrs)

(g) Dried process follows by SGS procedure

Remarks :

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

(2) IEC 62321 series is equivalent to EN 62321 series.

(3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021

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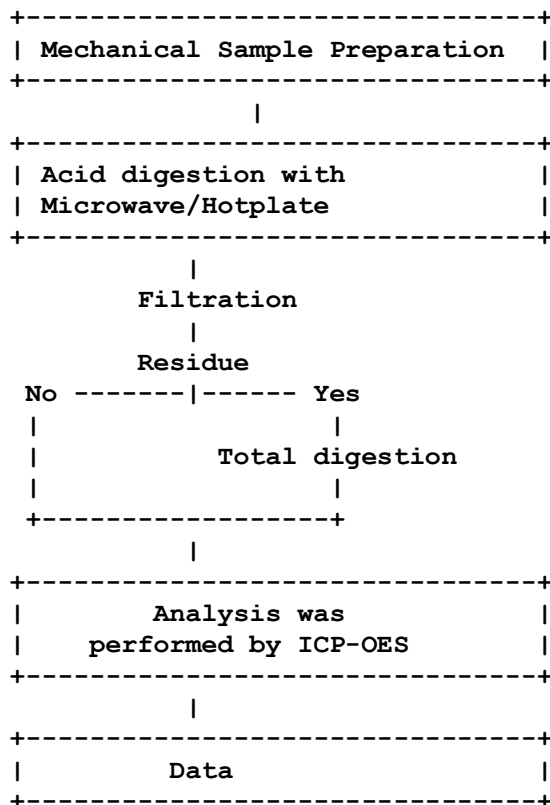
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# Flow chart of Pb,Cd,Hg Testing

(Test method : IEC 62321)



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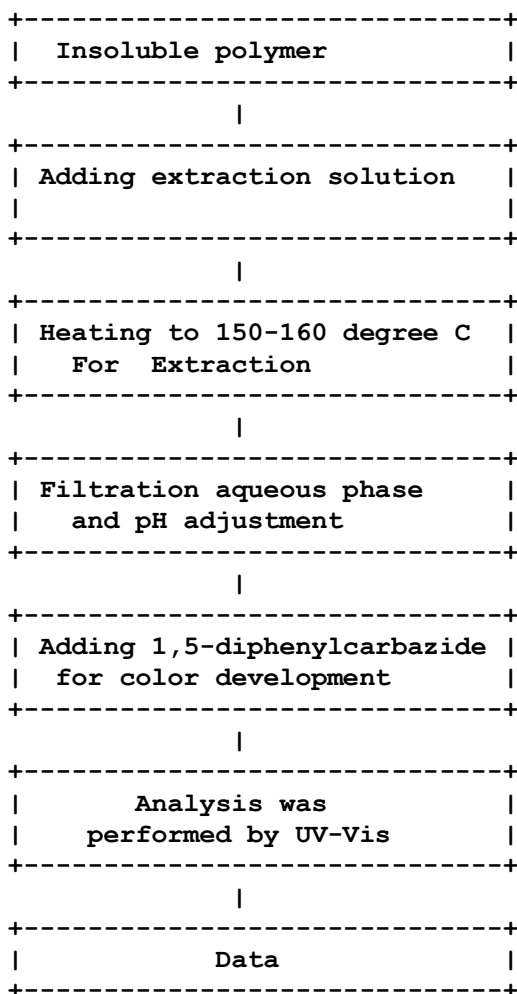
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**Flow chart of Hexavalent Chromium Testing**

(Test method : IEC 62321)



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## SAMPLE/ATTACHMENT PICTURE



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

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