



## Test Report No. F690101/LF-CTSAYSA21-08916

Issued Date : 2021. 06. 09

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### KUMHO PETROCHEMICAL CO., LTD.

64, Sanggae-ro  
Nam-gu, Ulsan  
Korea

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

**SGS File No.** : AYS21-08916  
**Sample Description** : KHS68, RUBBER  
**Style No./Item No.** : N/A  
**Received Date** : 2021. 06. 03  
**Test Period** : 2021. 06. 03 to 2021. 06. 09  
**Report Comments** : The results shown in this test report refer only to the sample(s) tested unless otherwise stated.  
: This test report is not related to Korea Laboratory Accreditation Scheme.  
**Test Results** : For further details, please refer to following page(s)

SGS Korea Co., Ltd.

Tommy Oh / Chemical Lab Mgr

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CQP-7081-F48 (01)

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Sample No. : AYSA21-08916.001  
Sample Description : KHS68  
Item No./Part No. : N/A  
Materials : RUBBER

## Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321-4 : 2013+A1:2017, With reference to IEC 62321-5 : 2013, by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321-4 : 2013+A1:2017, With reference to IEC 62321-5 : 2013, by ICP-OES	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4 : 2013+A1:2017, With reference to IEC 62321-5 : 2013, by ICP-OES	2	N.D.
Hexavalent Chromium (Cr VI)*	mg/kg	With reference to IEC 62321-7-2 : 2017, by UV-Vis and/or with reference to IEC 62321-5 : 2013, by ICP-OES	8	N.D.

## Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Dibromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Tribromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Pentabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Hexabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Heptabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Octabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Nonabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.

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Sample No. : AYS21-08916.001  
Sample Description : KHS68  
Item No./Part No. : N/A  
Materials : RUBBER

## Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321-6 : 2015, by GC-MS	50	N.D.

## Phthalates

Test Items	Unit	Test Method	MDL	Results
Di-isobutyl phthalate (DIBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-butyl phthalate (DBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Benzyl butyl phthalate (BBP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.
Di-(2-ethylhexyl) phthalate (DEHP)	mg/kg	With reference to IEC 62321-8 : 2017, by GC-MS	50	N.D.

NOTE: (1) N.D. = Not detected.(<MDL)  
(2) µg/kg = ppm  
(3) MDL = Method Detection Limit  
(4) - = No regulation  
(5) \* = Qualitative analysis (No Unit)  
(6) Negative = Undetectable / Positive = Detectable

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Picture of Sample as Received:

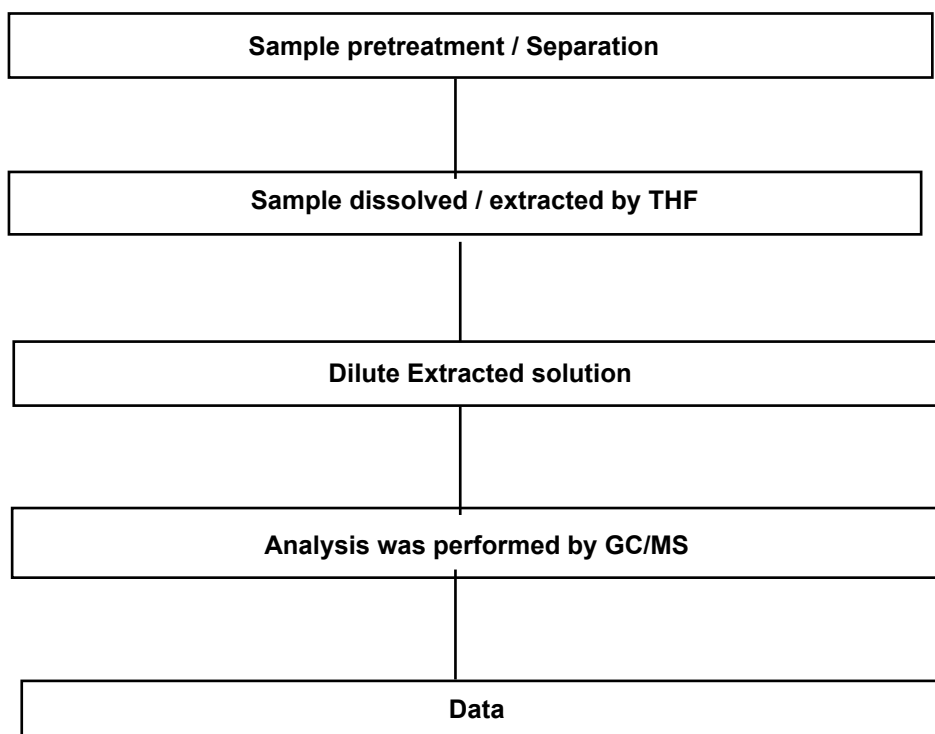


**AYSA21-08916.001**

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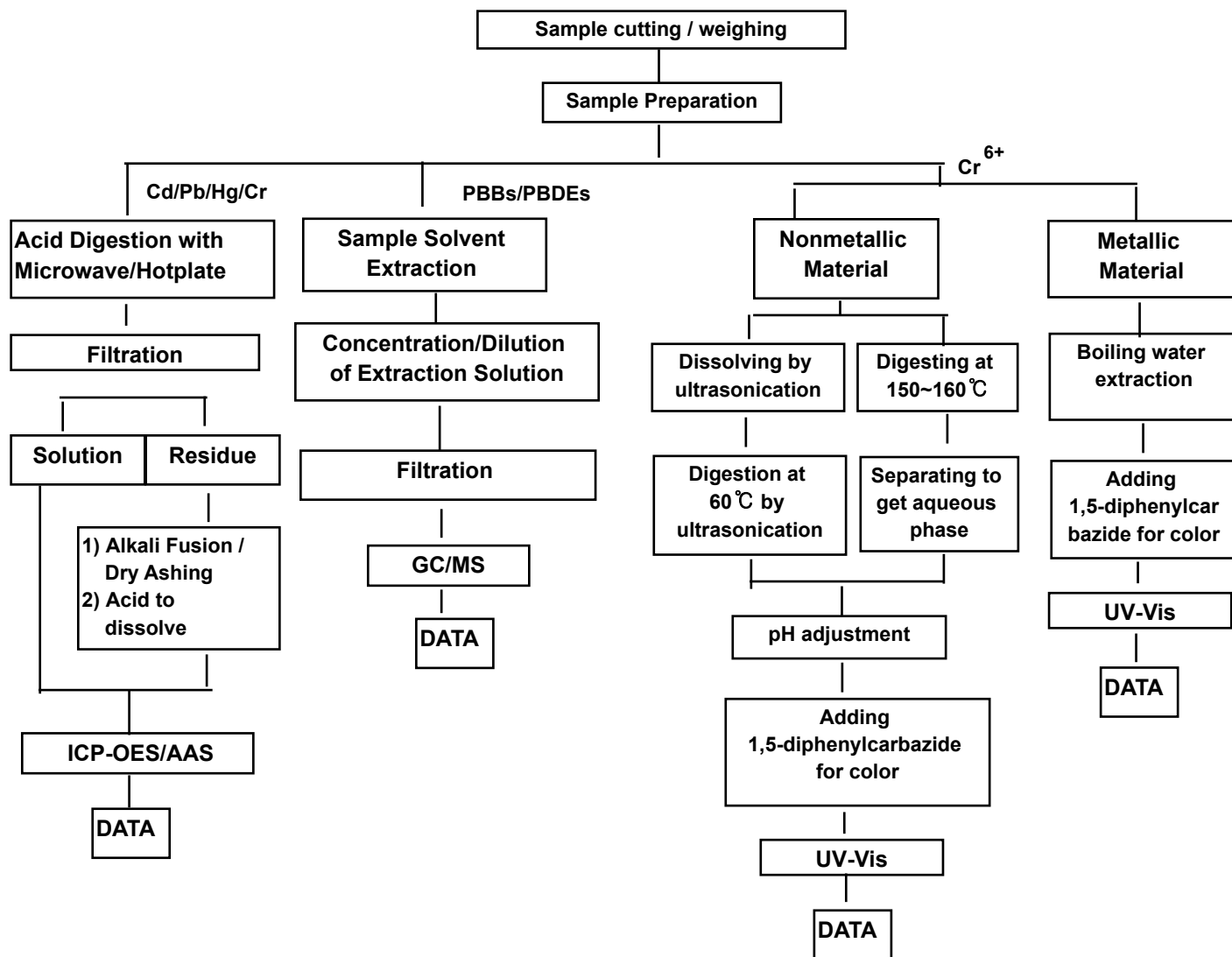


### Flow Chart for Phthalate Test



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## Testing Flow Chart for RoHS:Cd/Pb/Hg/Cr<sup>6+</sup> /PBBs&PBDEs Testing



The samples were dissolved totally at the acid digestion step of the above flow chart for Cd,Pb,Hg  
 Section Chief : Minkyu Park

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