

No. LPCI/11468-1/09 Date: 14/07/2009

CTS Ref. CTS/09/2714/Touch Chem-Afcona

TOUCH CHEM (M) SDN. BHD. / AFCONA ADDITIVES SDN. BHD. NO.22, JALAN ANGGERIK MOKARA 31/64, KOTA KEMUNING, 40460 SHAH ALAM, SELANGOR DARUL EHSAN.

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

Sample Description : Mixture of Touch Otal 2002, Touch Otal 2003, Touch Otal 2006,

Touch Otal 2008, Touch Otal 2009, Touch Anset 3000,

Touch Anset 3010 and Touch Anset 3300.

Sample Receiving Date :

Testing Period : 08/07/2009 to 14/07/2009

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

08/07/2009

amendment directives.

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

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

Analysts : Ng Mei Kheng & Yee Sook Wai

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Test results:

Test Part Description:

Sample Description : Mixture of Touch Otal 2002, Touch Otal 2003, Touch Otal 2006,

Touch Otal 2008, Touch Otal 2009, Touch Anset 3000,

Touch Anset 3010 and Touch Anset 3300.

RoHS Directive 2002/95/EC

Test Item(s):	Unit	Test Method	Results	<u>MDL</u>
Cadmium(Cd)	mg/kg	With reference to EPA Method 3051A, and performed by ICP-OES	N.D.	2
Lead (Pb)	mg/kg	With reference to EPA Method 3051A, and performed by ICP-OES	N.D.	2
Mercury (Hg)	mg/kg	With reference to EPA Method 3051A, 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
Sum of PBBs	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	-
Monobromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Dibromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Tribromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Tetrabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Hexabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Pentabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Heptabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Octabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Nonabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5
Decabromobiphenyl	mg/kg	With reference to EPA Method 3540C/3550B, and performed by GC-MS	N.D.	5

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No. LPCI/11468-1/09 Date : 14/07/2009 CTS Ref. CTS/09/2714/Touch Chem-Afcona

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

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Test Part Description:

Sample Description : Mixture of Touch Otal 2002, Touch Otal 2003, Touch Otal 2006,

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Touch Anset 3010 and Touch Anset 3300.

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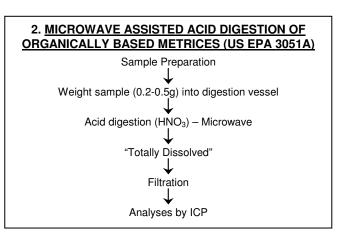
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1. DETERMINATION OF HEXAVALENT CHROMIUM BY METHOD US EPA 3060A/7196A Sample Preparation Add colour-developing reagent Acidify with H₂SO₄ Let stand for 5-10 min

Analyses by UV- Spectrophotometer (540 nm)



3. DETERMINATION OF PBB/PBDE WITH GC-MS Sample Preparation Weight sample (2g) into extraction thimble Soxhlet Extraction with Toluene Filter through 0.45 um membrane filter Analyses by GC-MS (with appropriate dilution)

**** End of Report ****

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