

**TEST REPORT**

Page 1 of 6

**REPORT NUMBER :** TURT190046404  
**APPLICANT NAME :** Kabkom Kimya San.Tic.A.Ş.  
**ADDRESS :** Barbaros Mah. Dereboyu Cad. Varyap Meridian E Blok D:185  
Ataşehir İstanbul / TURKEY

**SAMPLE DESCRIPTION :** One sample of Flame Reterdant Masterbatch KK-H/KK-HI/KK-H2/KK-H4/KK-H3/KK-UK/FR-HC Granulle item  
**DATE IN :** 15 March ,2019 ( 10:58:00)  
**DATE OUT :** 21 March ,2019  
**REQUEST.** RoHS Test was performed according to 2015/863/EU Directive.  
**RESULTS:** See attachment

		CONCLUSION
PART	DESCRIPTION	
Sample 1	Sample	Pass

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PP



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190046404

## TEST REPORT

21 March ,2019

REPORT : TURT190046404

Page 2 of 6

### (A) TEST RESULT SUMMARY ACCORDING TO IEC 62321

#### Electrotechnical Products-Determination of Levels of Six Regulated Substances

TESTING ITEM	RESULT
	<b>Sample 1</b>
	Part
Cadmium (Cd) Content	ND
Chromium VI (Cr+6) Content (ppm) (for non- metal)	ND
Chromium VI (Cr+6) Content (µg/cm <sup>2</sup> ) (for metal)	NA
Lead (Pb) Content	372 ppm
Mercury (Hg) Content	ND
Flame Retardants	
<b>Polybrominated Biphenyls (PBB)</b>	ND
Monobromobiphenyl (MonoBB)	ND
Dibromobiphenyl (DiBB)	ND
Tribromobiphenyl (TriBB)	ND
Tetrabromobiphenyl (TetraBB)	ND
Pentabromobiphenyl (PentaBB)	ND
Hexabromobiphenyl (HexaBB)	ND
Heptabromobiphenyl (HeptaBB)	ND
Octabromobiphenyl (OctaBB)	ND
Nonabromobiphenyl (NonaBB)	ND
Decabromobiphenyl (DecaBB)	ND
<b>Polybrominated Diphenyl Ethers (PBDE)</b>	ND
Monobromodiphenyl Ether (MonoBDE)	ND
Dibromodiphenyl Ether (DiBDE)	ND
Tribromodiphenyl Ether (TriBDE)	ND
Tetrabromodiphenyl Ether (TetraBDE)	ND
Pentabromodiphenyl Ether (PentaBDE)	ND
Hexabromodiphenyl Ether (HexaBDE)	ND
Heptabromodiphenyl Ether (HeptaBDE)	ND
Octabromodiphenyl Ether (OctaBDE)	ND
Nonabromodiphenyl Ether (NonaBDE)	ND
Decabromodiphenyl Ether (DecaBDE)	ND

Remarks : ppm=Parts per million based on dry weight of sample

µg/cm<sup>2</sup>=Microgram per square centimetre

mg/kg with 50 cm<sup>2</sup>=Milligram per kilogram with 50 square centimetre

ND =Not detected NA =Not applicable NR =Not requested

Estimated Total Uncertainty = ((Heavy Metal: ±7% , PBB/PBDE: ±6%, Phthalates: ±6%))

**TEST REPORT**

21 March ,2019

REPORT : TURT190046404

Page 3 of 6

TESTING ITEM	RESULT
	Sample 1
	Part
<b>Phthalates</b>	
Dibutyl phthalate (DBP) (84-74-2)	ND
Di(2-ethylhexyl) phthalate (DEHP) (117-81-7)	ND
Benzyl butyl phthalate (BBP) (85-68-7)	ND
Diisobutyl Phthalate (DIBP) (84-69-5)	ND

Remarks : ppm=Parts per million based on dry weight of sample

µg/cm<sup>2</sup>=Microgram per square centimetremg/kg with 50 cm<sup>2</sup>=Milligram per kilogram with 50 square centimetre

ND =Not detected NA =Not applicable NR =Not requested

Estimated Total Uncertainty = ((Heavy Metal: ±7% , PBB/PBDE: ±6%, Phthalates: ±6%))

**TEST REPORT**

21 March ,2019

REPORT : TURT190046404

Page 4 of 6

**(B) REQUIREMENT:**

<b>SUBSTANCE</b>	<b>LIMITS</b>	
Cadmium (Cd) Content	0.01 % (100 ppm)	
Chromium VI (Cr+6) Content (ppm) (for non metal)	0.1 % (1000 ppm)	
Chromium VI (Cr+6) Content ( $\mu\text{g}/\text{cm}^2$ ) (for metal)	<u>Colorimetric result</u>	<u>Qualitative Result</u>
	< 0.10 $\mu\text{g}/\text{cm}^2$	Negative
	$\geq 0.10 \mu\text{g}/\text{cm}^2$ and $\leq 0.13 \mu\text{g}/\text{cm}^2$	Inconclusive
	> 0.13 $\mu\text{g}/\text{cm}^2$	Positive
Lead (Pb) Content	0.1 % (1000 ppm)	
Mercury (Hg) Content	0.1 % (1000 ppm)	
Flame Retardants	0.1 % (1000 ppm)	
Dibutyl Phthalate (DBP)	0.1 % (1000 ppm)	
Diethyl Hexyl Phthalate (DEHP)	0.1 % (1000 ppm)	
Benzyl Butyl Phthalate (BBP)	0.1 % (1000 ppm)	
Diisobutyl Phthalate (DIBP)	0.1 % (1000 ppm)	

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**TEST REPORT**

21 March ,2019

REPORT : TURT190046404

Page 5 of 6

**(C) TEST METHOD :**

Testing Item	Testing Method	Reporting Limit
Cadmium (Cd) Content	With reference to IEC 62321-5:2013, by microwave or acid digestion and determined by ICP-OES	Plastic : 2.5 ppm, Metal : 5 ppm, Ceramic : 1.25 ppm
Lead (Pb) Content	With reference to IEC 62321-5:2013, by microwave or acid digestion and determined by ICP-OES	Plastic : 5 ppm, Metal : 10 ppm, Ceramic : 2.5 ppm
Mercury (Hg) Content	With reference to IEC 62321-4:2017, by microwave or acid digestion and determined by ICP-OES	Plastic : 5 ppm, Metal : 10 ppm, Ceramic : 2.5 ppm
Chromium VI (Cr6+) (For non-metal)	With reference to IEC 62321-7-2:2017, by alkaline digestion and determined by UV-VIS spectrophotometer	Plastic : 25 ppm (PVC based) /8.33 ppm (other), Ceramic : 8.33 ppm
Chromium VI (Cr6+) (For metal)	With reference to IEC 62321-7-1:2015 , by boiling water extraction and determined by UV-VIS spectrophotometer	0.1 mg/kg with 50 cm <sup>2</sup> (IN TESTING SOLUTION)
PBBs/PBDEs	With reference to IEC 62321-6:2015, by solvent extraction and determined by GC/MS and HPLC	5 ppm
Phthalates	With reference to IEC 62321-8 (111/321/CD), by solvent extraction and determined by GC-MS.	50 ppm

**TEST REPORT**  
REPORT : TURT190046404

21 March ,2019  
Page 6 of 6

Sample 1



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##### END OF TEST REPORT ###