

TEST REPORT

Job No./Report No TR1502613

Date: 27 March 2019

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LUFTCHEM ENDÜSTRİYEL KİMYA LTD.ŞTİ
EGEMENLİK MAH. AYDINLAR CAD. NO: 101**To the attention of Feray Emil**

following sample(s) were submitted and identified on behalf of the clients as

SGS Job No.:	TR1502613
Tested sample description:	Luft Mold F18-008
Manufacturer	Luftchem End. Kim. Ltd. Şti
Date of sample reception:	22 March 2019
Testing period:	22 March 2019 ~ 27 March 2019
Test requested:	Selected test (s) as requested by client.
Test method:	Please refer to next page(s).

Conclusion: Based on the performed tests on selected part of submitted samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP), and Diisobutyl phthalate (DIBP) comply with the limits as set by Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

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The test results relate to the tested items only.
Test reports without SGS seal and authorized signatures are invalid.
Reported results do not include uncertainties.

Issued in Istanbul
Signed for and on behalf of
SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.

Selen Harman
Customer Services Team Leader

Yağız Barın
Section Manager



Test results:

Test Part Description:

Specimen No.	SGS Sample ID	Description	Material	Colour
1	A1	Luft Mold F18-008	-	Transparent

Remarks:

- (1) 1 mg/kg=0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (<MDL)
- "-" = Not Regulated

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Flame Retardants (ROHS)¹

Test Method: With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.

Test Item(s):	Unit	Results	MDL	Limit
		A1		
Sum of PBBs	mg/kg	n.d.	-	1000
Monobromobiphenyl	mg/kg	n.d.	5	-
Dibromobiphenyl	mg/kg	n.d.	5	-
Tribromobiphenyl	mg/kg	n.d.	5	-
Tetrabromobiphenyl	mg/kg	n.d.	5	-
Hexabromobiphenyl	mg/kg	n.d.	5	-
Pentabromobiphenyl	mg/kg	n.d.	5	-
Heptabromobiphenyl	mg/kg	n.d.	5	-
Octabromobiphenyl	mg/kg	n.d.	5	-
Nonabromobiphenyl	mg/kg	n.d.	5	-
Decabromobiphenyl	mg/kg	n.d.	5	-

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Test Item(s):	Unit	Results	MDL	Limit
		A1		
Sum of PBDEs	mg/kg	n.d.	-	1000
Monobromodiphenyl ether	mg/kg	n.d.	5	-
Dibromodiphenyl ether	mg/kg	n.d.	5	-
Tribromodiphenyl ether	mg/kg	n.d.	5	-
Tetrabromodiphenyl ether	mg/kg	n.d.	5	-
Hexabromodiphenyl ether	mg/kg	n.d.	5	-
Pentabromodiphenyl ether	mg/kg	n.d.	5	-
Heptabromodiphenyl ether	mg/kg	n.d.	5	-
Octabromodiphenyl ether	mg/kg	n.d.	5	-
Nonabromodiphenyl ether	mg/kg	n.d.	5	-
Decabromodiphenyl ether	mg/kg	n.d.	5	-

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

(b) n.d. = Not Detected

(c) MDL = Method Detection Limit

(d) " - " = Not Regulated

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

IEC 62321 series is equivalent to EN 62321 series

http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25

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Heavy Metals (ROHS)¹

Test Method:

- 1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
- 2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
- 3) With reference to IEC 62321-4:2013+A1:2017, determination of Mercury by ICP-OES.

Test Item(s):	Unit	Results	MDL	Limit
		A1		
Cadmium (Cd)	mg/kg	n.d.	2	100
Lead (Pb)	mg/kg	n.d.	2	1000
Mercury (Hg)	mg/kg	n.d.	2	1000
Hexavalent Chromium (CrVI)	mg/kg	n.d.*	8	1000

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

(b) n.d. = Not Detected

(c) MDL = Method Detection Limit

(d) " * " = Test result for Chromium VI is considered as "n.d" since Total Chromium is not found by IEC 62321 test method.

(e) " - " = Not Regulated

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

IEC 62321 series is equivalent to EN 62321 series

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Phthalates

Test Method: With reference to IEC 62321-8:2017, determination of phthalates by GC-MS

Test Item(s):	Unit	Results	MDL	Limit
		A1		
Bis (2-ethylhexyl) phthalate (DEHP)	mg/kg	n.d.	50	1000
Butyl benzyl phthalate (BBP)	mg/kg	n.d.	50	1000
Dibutyl phthalate (DBP)	mg/kg	n.d.	50	1000
Diisobutyl phthalate (DIBP)	mg/kg	n.d.	50	1000

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

(b) n.d. = Not Detected

(c) MDL = Method Detection Limit

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

IEC 62321 series is equivalent to EN 62321 series

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2) On 4 June 2015, [Commission Directive \(EU\) 2015/863](#) was published in the Official Journal of the European Union (OJEU) to include the phthalates BBP, DBP, DEHP and DIBP into ANNEX II of the Rohs Recast Directive. The new law restricts each phthalate to no more than 0.1% in each homogeneous material of an electrical product.

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.

4) The restriction of DEHP, BBP, DBP and DIBP shall not apply to cables or spare parts for the repair, the reuse, the updating of functionalities or upgrading of capacity of EEE placed on the market before 22 July 2019, and of medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, placed on the market before 22 July 2021.

5) The restriction of DEHP, BBP and DBP shall not apply to toys which are already subject to the restriction of DEHP, BBP and DBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.

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End of Test Report

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