

Test Report

Number: SHAH01078942

Applicant: Eastman Chemical (China) Co., Ltd
BUILDING 3, YAXIN SCIENCE
TECHNOLOGY PARK, LANE 399 SHENGXIA
ROAD, PUDONG NEW DISTRICT
Attn: Ada Lin

Date: 04 Apr, 2019

Sample Description:

Sample Name : Tritan™ Copolyester TX1001
Tritan™ Copolyester TX1501HF
Tritan™ Copolyester TX2001

Tests Conducted:

As requested by the applicant, for details refer to attached page(s).

Conclusion:

<u>Tested Sample</u>	<u>Standard</u>	<u>Result</u>
Tested Component Of Submitted Sample	Restriction of the use of certain hazardous substance in electrical and electronic equipment (RoHS Directive 2011/65/EU and (EU) 2015/863)	See test conducted

To be continued

Authorized By:
For Intertek Testing Services Ltd., Shanghai



Young Zhu
Vice President



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Tests Conducted
RoHS Chemical Test

(A) Test Result Summary:

Testing Item	Result
	(1+2+3)
Cadmium (Cd) Content (mg/kg)	ND
Lead (Pb) Content (mg/kg)	ND
Mercury (Hg) Content (mg/kg)	ND
Chromium (VI)(Cr ⁶⁺) Content (mg/kg)	ND
Polybrominated Biphenyls (PBBs) Content (mg/kg)	
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
Polybrominated Diphenyl Ethers (PBDEs) Content (mg/kg)	
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
Phthalates Content (mg/kg)	
Bis(2-ethylhexyl)phthalate (DEHP)	ND
Butyl benzyl phthalate (BBP)	ND
Dibutyl phthalate (DBP)	ND
Diisobutyl phthalate (DIBP)	ND

mg/kg = milligram per kilogram

ND = Not detected

To be continued

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(B) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr ⁶⁺)	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Phthalates (DEHP, BBP, DBP, DIBP)	0.1% (1000 mg/kg)

The above limits were quoted from 2011/65/EU and (EU) 2015/863 for homogeneous material.

(C) Test Method:

Testing Item	Testing Method	Reporting Limit
Cadmium (Cd) Content	With reference to IEC 62321-5 Edition 1.0:2013, by acid digestion until the tested sample was totally dissolved and determined by ICP - OES	2 mg/kg
Lead (Pb) Content	With reference to IEC 62321-5 Edition 1.0:2013, by acid digestion until the tested sample was totally dissolved and determined by ICP - OES	2 mg/kg
Mercury (Hg) Content	With reference to IEC 62321-4 Edition 1.1:2017, by acid digestion until the tested sample was totally dissolved and determined by ICP - OES	2 mg/kg
Chromium (VI)(Cr ⁶⁺) Content	With reference to IEC 623217-2 Edition 1.0:2017, by alkaline digestion and determined by UV-VIS Spectrophotometer	10 mg/kg
Polybrominated Biphenyls (PBBs)& Polybrominated Diphenyl Ethers (PBDEs) Content	With reference to IEC 62321-6 Edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	5 mg/kg
Phthalates (DEHP, BBP, DBP, DIBP) Content	With reference to IEC 62321-8 Edition 1.0:111/321/CD, by solvent extraction and determined by GC/MS	100mg/kg

Tested Components: See component list in the last section of this report.

To be continued

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Tests Conducted



Picture of sample

Date Sample Received: Mar.29, 2019

Testing Period: Mar.29, 2019 To Apr.3, 2019

Components List:

- (1) Tritan™ Copolyester TX1001
- (2) Tritan™ Copolyester TX1501HF
- (3) Tritan™ Copolyester TX2001

End of report

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