TEST REPORT

KOTITI No. 8218-1401-100189

Applicant Avery Dennison Korea

Date In 2018. 01. 22. Date Out 2018. 01. 31.

Sample Description	S8020
Sample Quantity	One (1) Sample(s)
Buyer	N/S
Item Number	N/S
Material	Adhesive
Testing Period	2018. 01. 22. ~ 2018. 01. 31.
Test Result	For further details, please refer to the following page(s).

^{*} N/S: Not Submitted, N.A.: Not Applicable, N.D.: Not Detected [< RL(Report Limit)]

KOTITI Testing & Research Institute



Contact Information for technical questions and general inquiries.

Hyun min Lee T (822)3451-7183 E hm_lee@kr.kotiti-global.com Jung hyun Lee T (822)3451-7113 E jhlee@kr.kotiti-global.com Man sik Wang T (822)3451-7096 E mswang@kr.kotiti-global.com

111, Sagimakgol-ro, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea T (822)3451-7183 F (822)3451-7179 W www.kotiti-global.com

- 1. The test results contained in this report are limited to results on the sample(s) that is provided by client and are not necessarily indicative or representative of the qualities of the lot from which the sample(s) was taken or of all products.
- 2. Further use of the results of this report is prohibited unless allowed under a separate agreement set forth in an official document that is established between the client identified on this letter and the KOTITI Testing & Research Institute.



OPF-23-06 KOTITI

^{*} Negative : Not Detected, Positive : Detected

Tested Sample List			
Sample No.	Sample Description	Item No.	Material
1	S8020	N/S	Adhesive



RoHS, Unit: mg/kg (EU Directive 2011/65/EU)

Test Conducted	Test Method	RL	Test Results
			1
Lead (Pb)	IEC 62321-5:2013 (Acid digestion and determined by ICP-OES)	5	N.D.
Cadmium (Cd)		2	N.D.
Mercury (Hg)	IEC 62321-4:2013 (Acid digestion and determined by ICP-OES)	1	N.D.
Hexavalent Chromium (Cr ⁶⁺)	IEC 62321-7-2:2017 (Solvent extraction and determined by UV-VIS)	8	N.D.
* Polybrominated Biphenyls(PBBs)			
Bromobiphenyl		5	N.D.
Dibromobiphenyl		5	N.D.
Tribromobiphenyl		5	N.D.
Tetrabromobiphenyl		5	N.D.
Pentabromobiphenyl		5	N.D.
Hexabromobiphenyl		5	N.D.
Heptabromobiphenyl		5	N.D.
Octabromobiphenyl		5	N.D.
Nonabromobiphenyl		5	N.D.
Decabromobiphenyl		5	N.D.
Sum of PBBs		-	N.D.
* Polybrominated Diphenyl Ethers(PBDEs)	IEC 62321-6:2015 (Solvent extraction and determined by		
Bromodiphenyl ethers	GC-MS)	5	N.D.
Dibromodiphenyl ethers		5	N.D.
Tribromodiphenyl ethers		5	N.D.
Tetrabromodiphenyl ethers		5	N.D.
Pentabromodiphenyl ethers		5	N.D.
Hexabromodiphenyl ethers		5	N.D.
Heptabromodiphenyl ethers	-	5	N.D.
Octabromodiphenyl ethers		5	N.D.
Nonabromodiphenyl ethers		5	N.D.
Decabromodiphenyl ether		5	N.D.
Sum of PBDEs	†	-	N.D.



Phthalates, Unit: mg/kg

Test Conducted	Test Method	RL	Test Results
			1
di-n-butyl phthalate (DBP)		50	N.D.
di(ethylhexyl) phthalate (DEHP)		50	N.D.
butyl benzyl phthalate (BBP)		50	N.D.
diisobutyl phthalate (DIBP)		50	N.D.
1,2-benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNUP)		50	N.D.
diisoheptyl phthalate (DIHP)		50	N.D.
Bis(2-methoxyethyl) phthalate (BMP) Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3],		50	N.D.
Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and transstereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	IEC 62321-8:2017	50	N.D.
diisopentyl phthalate (DIPP)	(Solvent extraction and determined by GC-MS)	50	N.D.
di-n-pentyl phthalate (DnPP)		50	N.D.
N-pentyl-isopentyl phthalate (PIPP)		50	N.D.
di-n-hexyl phthalate (DnHP)		50	N.D.
1.2-Benzenedicarboxylic acid, dihexyl ester, branched and linear		50	N.D.
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate		50	N.D.
dicyclohexyl phthalate (DCHP)		50	N.D.
di-isononyl phthalate (DINP)		50	N.D.
di-iso-decyl phthalate (DIDP)		50	N.D.
di-n-octyl phthalate (DNOP)		50	N.D.
dimethyl phthalate (DMP)		50	N.D.
diethyl phthalate (DEP)		50	N.D.
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DPP)		50	N.D.



Halogen, Unit: mg/kg

Test Conducted	Test Method	RL	Test Results
			1
Chlorine (CI)	IEC 62321-3-2:2013 & KS M 0180:2009	30	N.D.
Bromine (Br)	determined by C-IC	30	76



Sulfur, Unit: mg/kg

Test Conducted	Test Method	RL	Test Results
			1
Sulfur (S)	IEC 62321-3-2:2013 & KS M 0180:2009	30	1 280
	determined by C-IC		. 200



Heavy metal, Unit: mg/kg

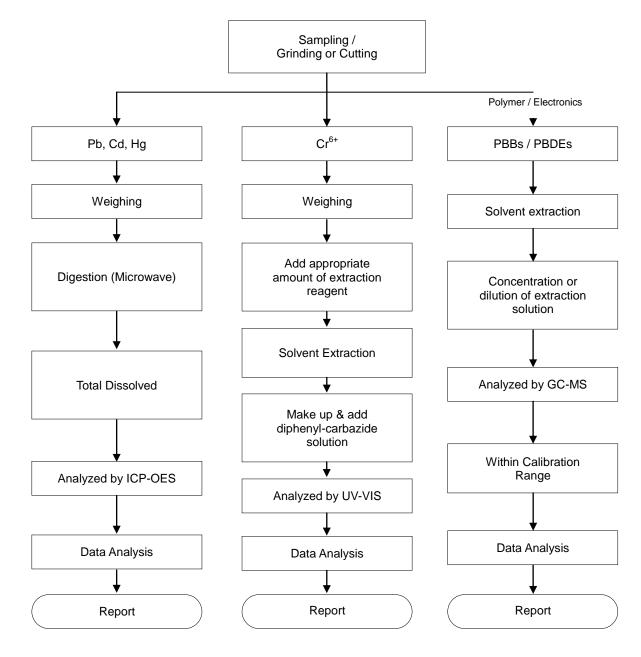
Test Conducted	Test Method	RL	Test Results
			1
Antimony (Sb)	Reference to EPA 3052:1996 determined by	5	N.D.
Beryllium (Be)	ICP-OES	5	N.D.

Photo of the submitted sample(s)





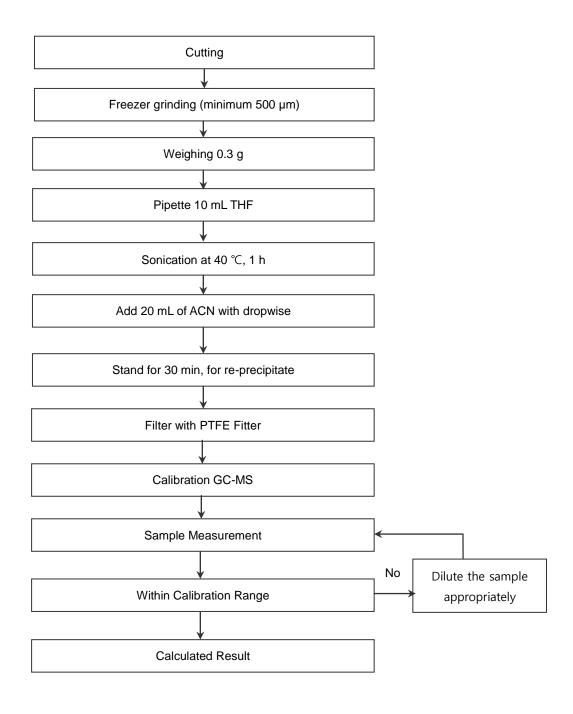
RoHS



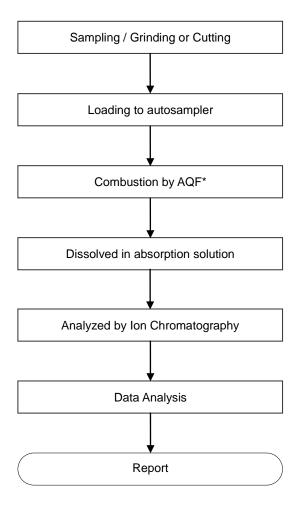
Material	Digestion Acid
Polymers	HNO ₃ , HCI, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.
Metals	HNO₃, HCI
Electronics	HNO ₃ , HCI, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.



Phthalates

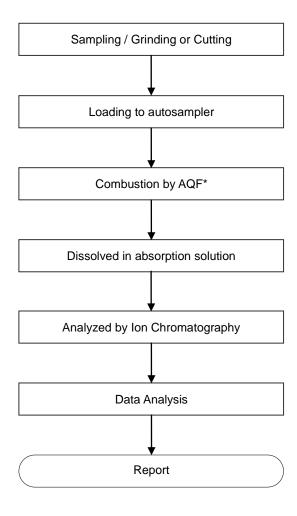


Halogen



*AQF: Automated Quick Furnace

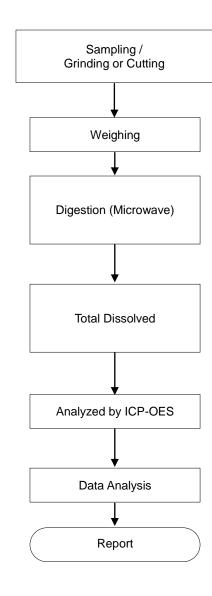
Sulfur



*AQF: Automated Quick Furnace



Heavy metal



Material	Digestion Acid
Polymers	HNO ₃ , HCI, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.
Metals	HNO ₃ , HCI
Electronics	HNO ₃ , HCI, HF, H ₂ O ₂ , H ₂ SO ₄ , etc.