TEST REPORT

KOTITI No. | **8224-1401-103010**

Applicant | Avery Dennison Korea

Date In | May 22, 2024 **Date Out** | May 31, 2024

Issue No	5732755731
Sample Description	BOPP DT
Sample Quantity	One (1) Sample(s)
Buyer	N/S
Item Number	BOPP DT
Material	Flim
Testing Period	May 22, 2024 ~ May 31, 2024
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)]**
***Negative : Not Detected, Positive : Detected**

Affirmation	Prepared by Name : Hyo Jeong Ra	Technical Manager Name : Woo Ram Lee

KOTITI Testing & Research Institute

Contact Information for technical questions and general inquiries.

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Tested Sample List			
Sample No.	**Sample Description**	**Item No.**	**Material**
1	BOPP DT	BOPP DT	Flim

RoHS, Unit : mg/kg
(EU Directive 2011/65/EU, 2015/863/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+AMD1:2017 CSV (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	IEC 62321-6:2015 (Solvent extraction and determined by GC-MS)	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)			
Bromodiphenyl ether	IEC 62321-6:2015 (Solvent extraction and determined by GC-MS)	5	N.D.
Dibromodiphenyl ether		5	N.D.
Tribromodiphenyl ether		5	N.D.
Tetrabromodiphenyl ether		5	N.D.
Pentabromodiphenyl ether		5	N.D.
Hexabromodiphenyl ether		5	N.D.
Heptabromodiphenyl ether		5	N.D.
Octabromodiphenyl ether		5	N.D.
Nonabromodiphenyl ether		5	N.D.
Decabromodiphenyl ether		5	N.D.
Sum of PBDEs		-	N.D.

Phthalates, Unit : mg/kg
(EU Directive 2011/65/EU, 2015/863/EU)

Test Conducted	Test Method	RL	Test Results
			1
di-n-butyl phthalate (DBP)	IEC 62321-8:2017 (Solvent extraction and determined by GC-MS or LC-MS)	50	N.D.
di(ethylhexyl) phthalate (DEHP)		50	N.D.
butyl benzyl phthalate (BBP)		50	N.D.
diisobutyl phthalate (DIBP)		50	N.D.
di-isononyl phthalate (DINP)		50	N.D.
Di-n-hexyl Phthalate (DnHP)		50	N.D.
di-iso-decyl phthalate (DIDP)		50	N.D.
Di-n-octyl Phthalate (DNOP)		50	N.D.

Halogen, Unit : mg/kg

Test Conducted	Test Method	RL	Test Results
			1
Bromine (Br)	IEC 62321-3-2:2020 & KS M 0180:2009 determined by C-IC	30	N.D.
Chlorine (Cl)		30	N.D.

Sulfur (S), Unit : mg/kg

Test Conducted	Test Method	RL	Test Results
			1
Sulfur (S)	IEC 62321-3-2:2020 & KS M 0180:2009 determined by C-IC	30	1 916.5

Heavy metal, Unit : mg/kg

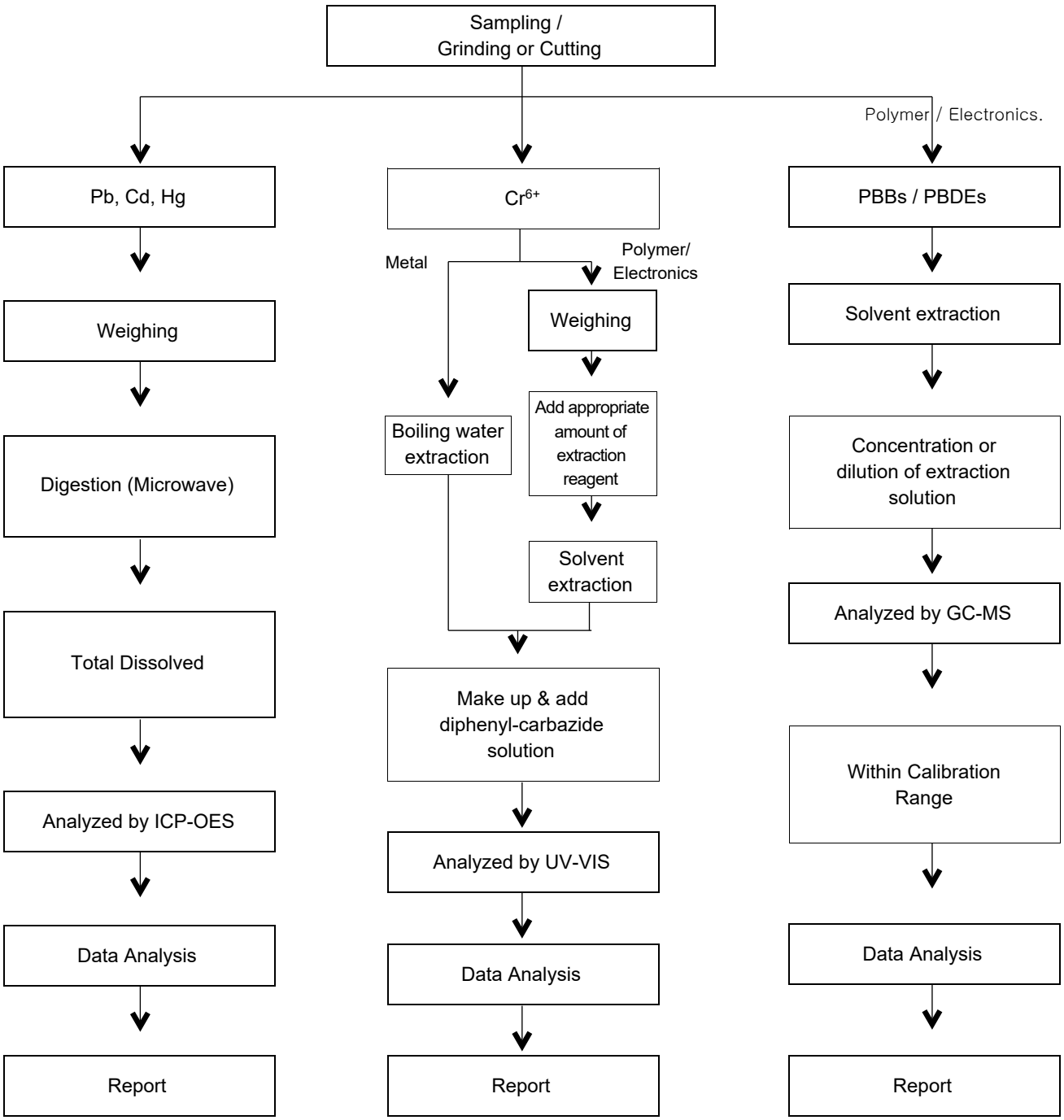
Test Conducted	Test Method	RL	Test Results
			1
Antimony (Sb)	Reference to EPA 3052:1996 determined by ICP-OES, AAS	5	N.D.
Beryllium (Be)		5	N.D.

Photo of the submitted sample(s)

Sample No.1	

Flow Chart

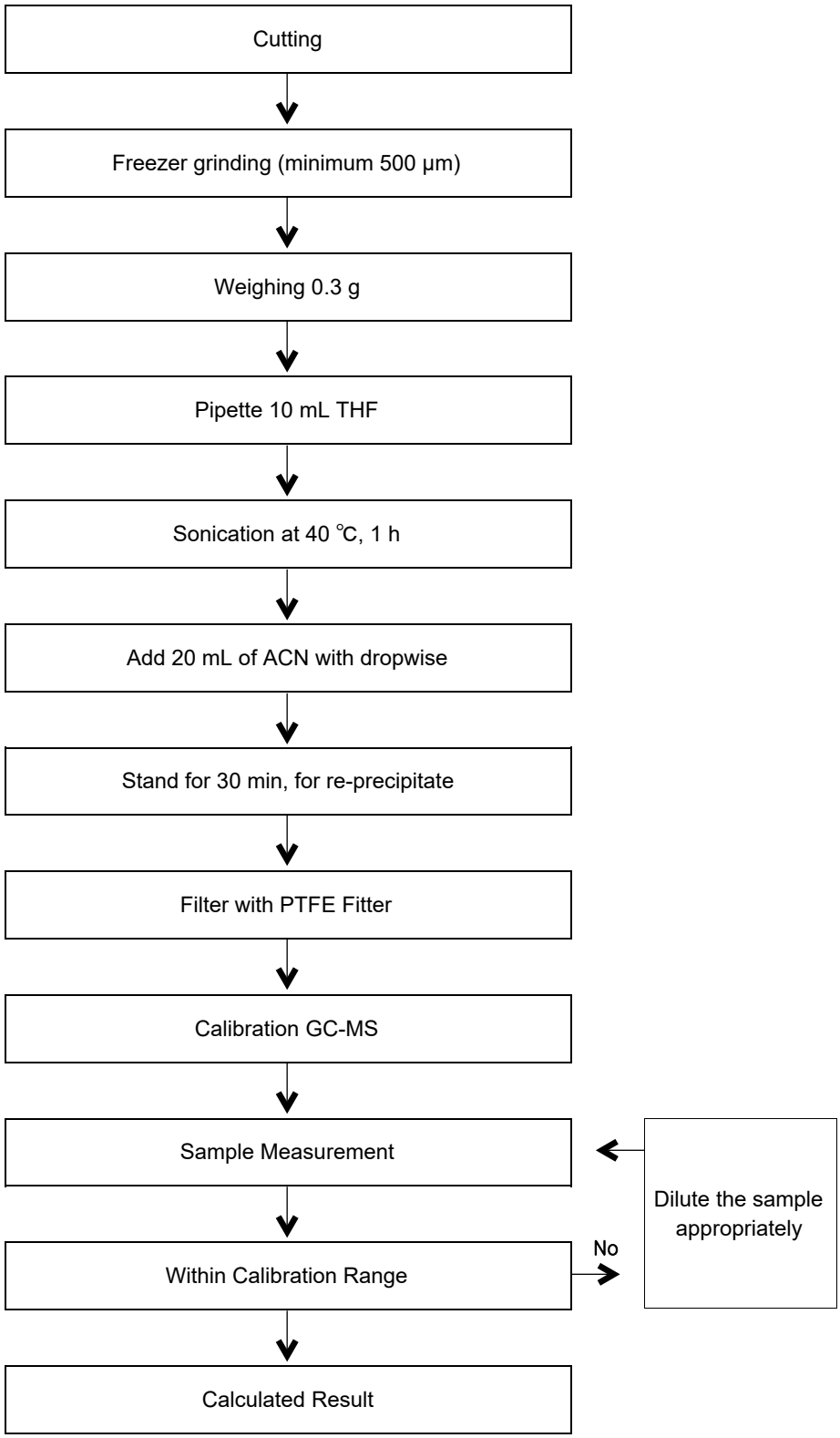
RoHS(Pb, Hg, Cd, Cr^{6+}, PBBs/PBDEs)



Material	Digestion Acid
Polymers	HNO_3, HCl, HF, H_2O_2, H_2SO_4, etc.
Metals	HNO_3, HCl
Electronics	HNO_3, HCl, HF, H_2O_2, H_2SO_4, etc.

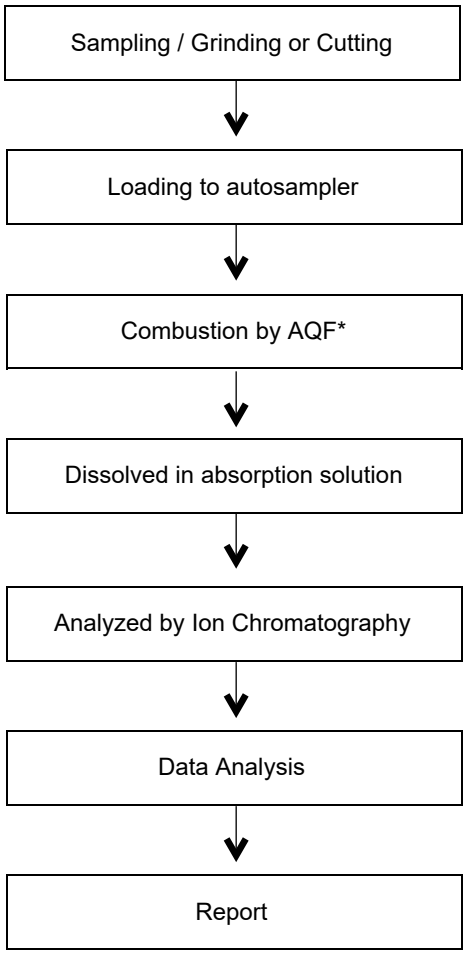
Flow Chart

Phthalates



Flow Chart

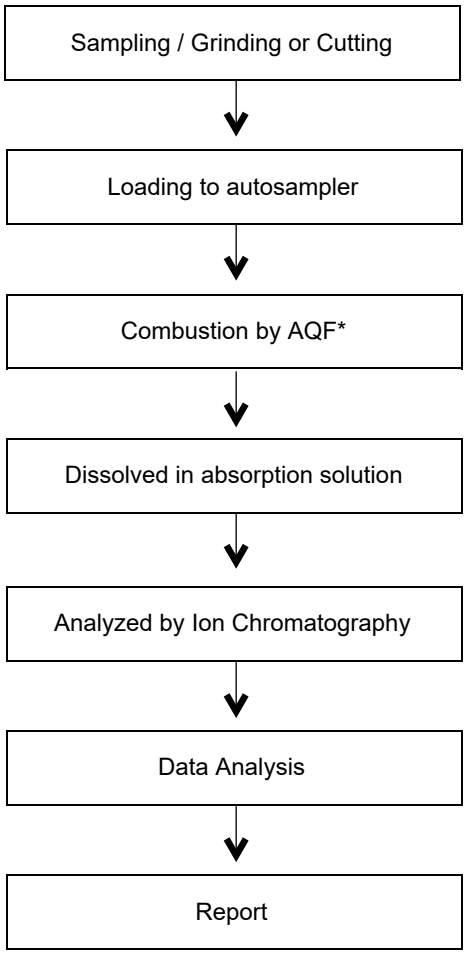
Halogen



*AQF : Automated Quick Furnace

Flow Chart

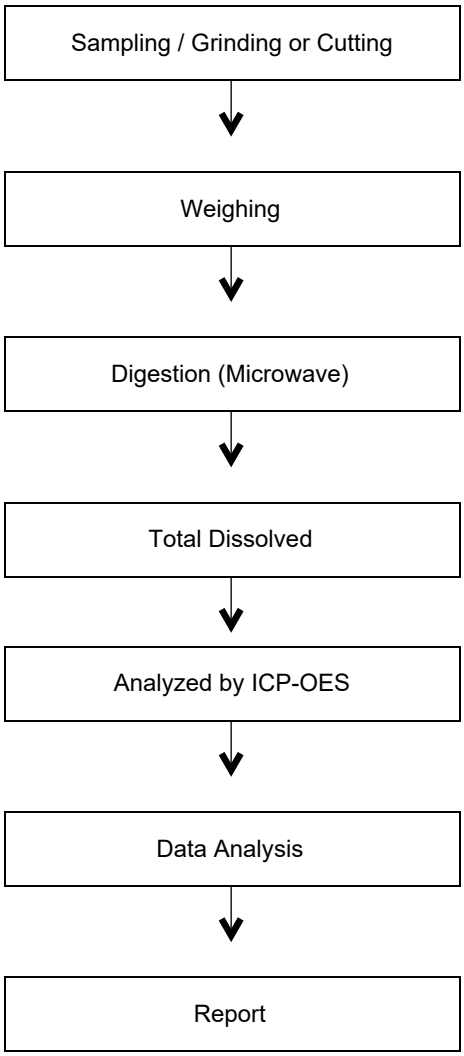
Sulfur



*AQF : Automated Quick Furnace

Flow Chart

Heavy metal



Material	Digestion Acid
Polymers	HNO_3, HCl, HF, H_2O_2, H_2SO_4, etc.
Metals	HNO_3, HCl
Electronics	HNO_3, HCl, HF, H_2O_2, H_2SO_4, etc.