# TEST REPORT

**KOTITI No.** | **8224-1401-105283**

**Applicant** | Avery Dennison Korea

**Date In** | Aug 28, 2024 **Date Out** | Sep 05, 2024

| | |
|---|---|
| **Issue No** | 3204752061 |
| **Sample Description** | S2830 |
| **Sample Quantity** | One (1) Sample(s) |
| **Buyer** | N/S |
| **Item Number** | S2830 |
| **Material** | Adhesive |
| **Testing Period** | Aug 28, 2024 ~ Sep 05, 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<br>Name : Hyo Jeong Ra | Technical Manager<br>Name : Gun Young Ryu |
|---|---|---|

**KOTITI** Testing & Research Institute


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| Tested Sample List | | | |
|---|---|---|---|
| **Sample No.** | **Sample Description** | **Item No.** | **Material** |
| 1 | S2830 | S2830 | Adhesive |

## 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 | 1 058.6 |

## Heavy metal, Unit : mg/kg

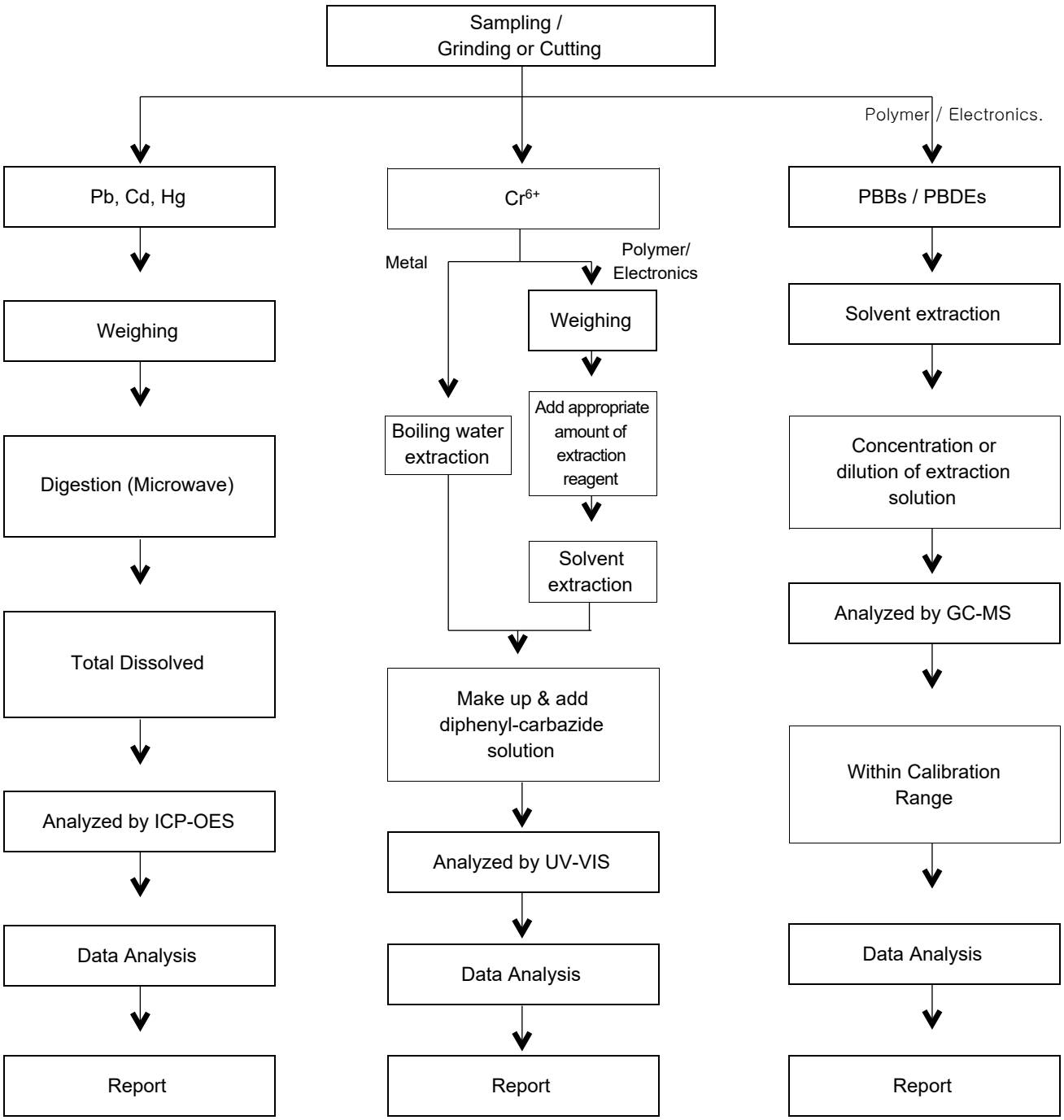
| Test Conducted | Test Method | RL | Test Results |
|---|---|---|---|
| | | | 1 |
| Antimony (Sb) | Reference to EPA 3052:1996 determined by ICP-OES, AAS | 5 | N.D. |
| Beryllium (Be) | | 5 | N.D. |

## Photo of the submitted sample(s)

| | |
|---|---|
| Sample No.1 |   |

## Flow Chart

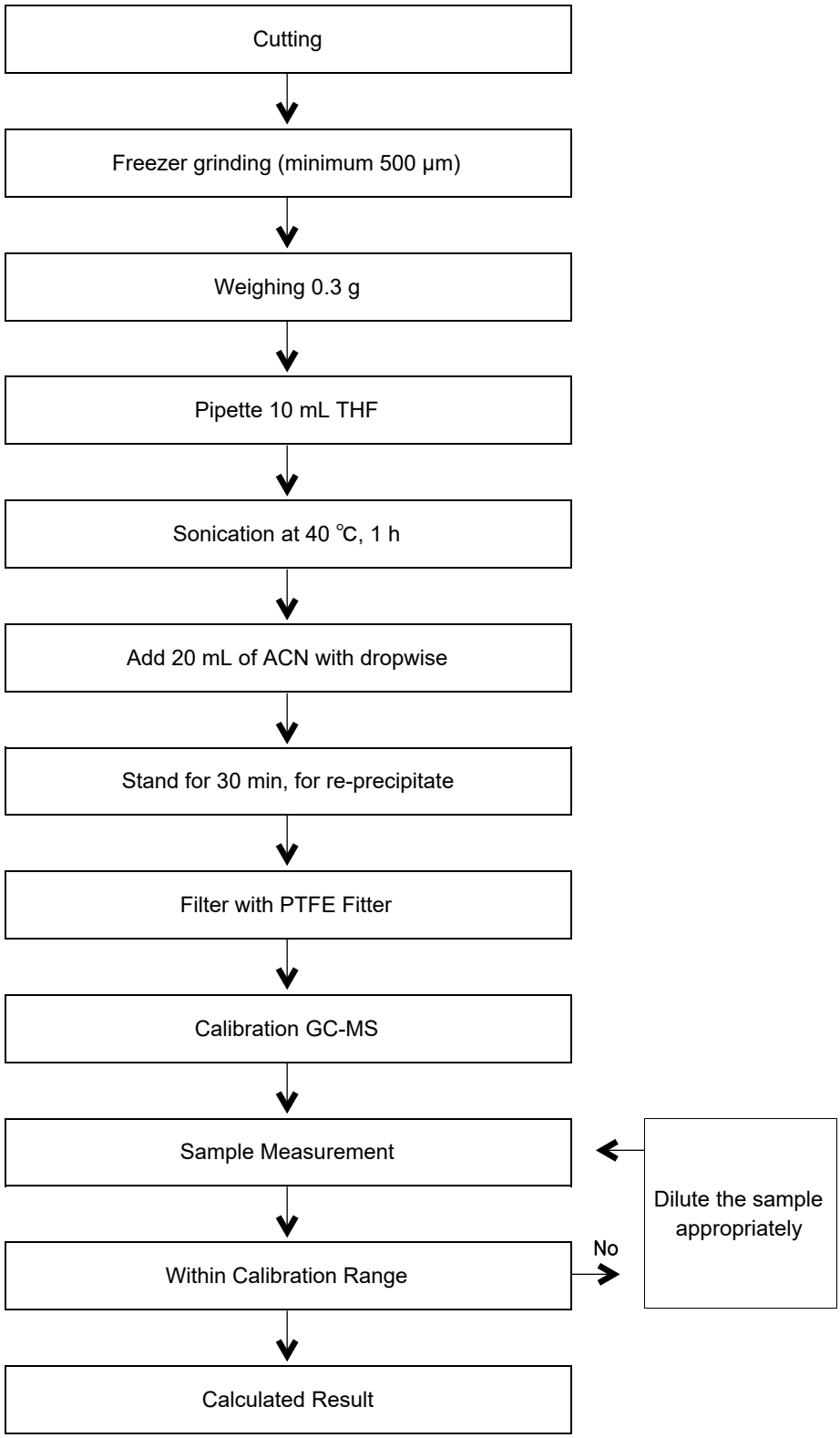
**RoHS(Pb, Hg, Cd, $Cr^{6+}$, PBBs/PBDEs)**




| 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. |

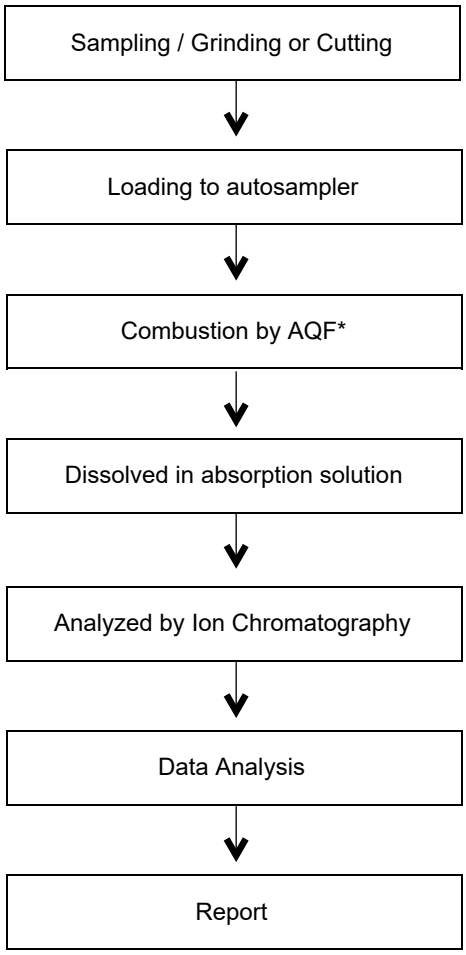
## Flow Chart

### Phthalates



## Flow Chart

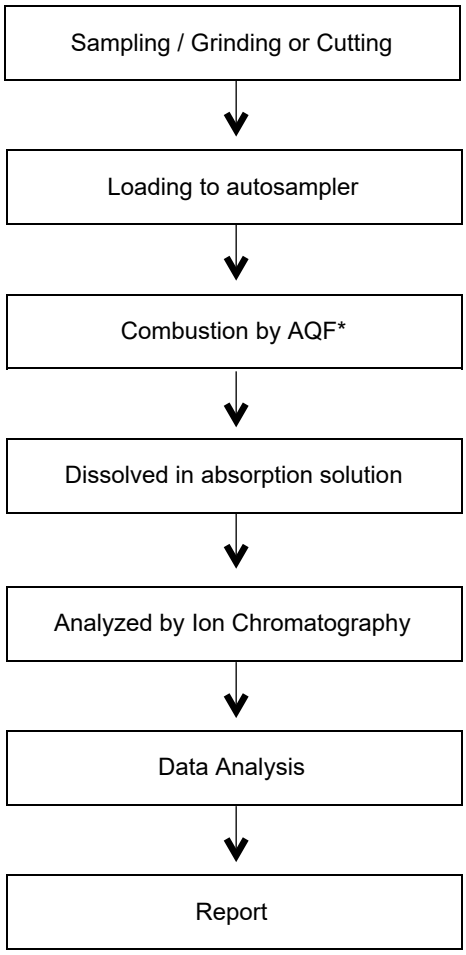
### Halogen




*AQF : Automated Quick Furnace

## Flow Chart

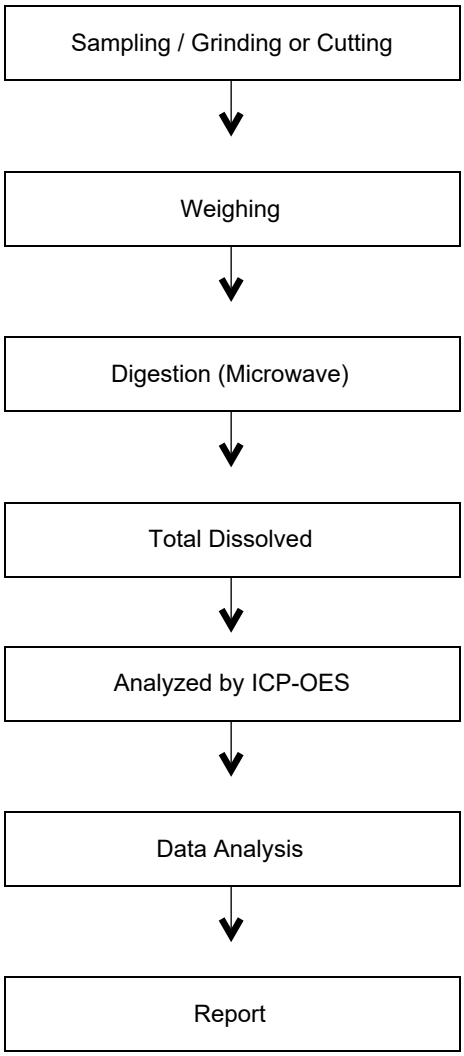
### Sulfur




*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. |