

TEST REPORT

KOTITI No. 8221-1401-106284

Applicant Avery Dennison Korea

Date In 2021. 12. 20.

Date Out 2022. 01. 03.

| | |
|--------------------|---|
| Sample Description | AT20 |
| Sample Quantity | One (1) Sample(s) |
| Buyer | N/S |
| Item Number | AT20 |
| Material | Adhesive |
| Testing Period | 2021. 12. 20. ~ 2022. 01. 03. |
| 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 | Researcher by Name : Jeong taek Kim | Technical Manager Name : Hae sung Kim |
|-------------|--|--|

KOTITI Testing &
Research Institute



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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.
3. The test result in this report is not related to accreditation of KOLAS.
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QPF-16-06(rev.01)

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| Tested Sample List | | | |
|---------------------------|---------------------------|-----------------|-----------------|
| Sample No. | Sample Description | Item No. | Material |
| 1 | AT20 | AT20 | 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 (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 ethers | | 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
(EU Directive 2011/65/EU, 2015/863/EU)

| Test Conducted | Test Method | RL | Test Results |
|--|--|----|--------------|
| 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) | | 50 | N.D. |
| Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans-stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry] | IEC 62321-8:2017 (Solvent extraction and determined by GC-MS) | 50 | N.D. |
| diisopentyl phthalate (DIPP) | | 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-isobornyl 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 (Cl) | IEC 62321-3-2:2020 & KS M 0180:2009 | 30 | 330 |
| Bromine (Br) | determined by C-IC | 30 | 95 |

Sulfur, 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 | 1 925 |

Heavy metal, Unit: mg/kg

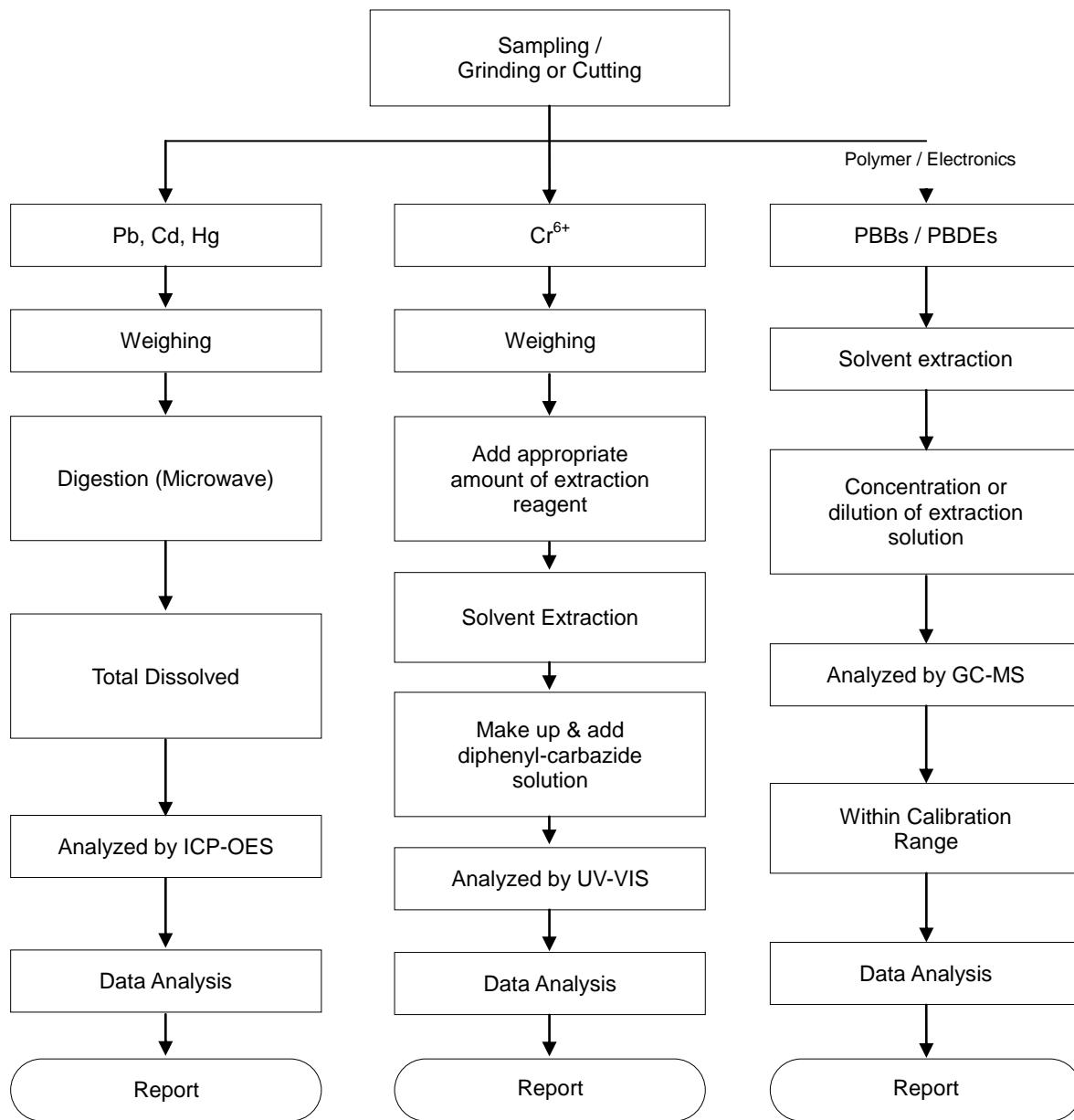
| Test Conducted | Test Method | RL | Test Results |
|----------------|--|----|--------------|
| | | | 1 |
| Antimony (Sb) | Reference to EPA 3052:1996 determined by | 5 | N.D. |
| Beryllium (Be) | ICP-OES | 5 | N.D. |

Photo of the submitted sample(s)

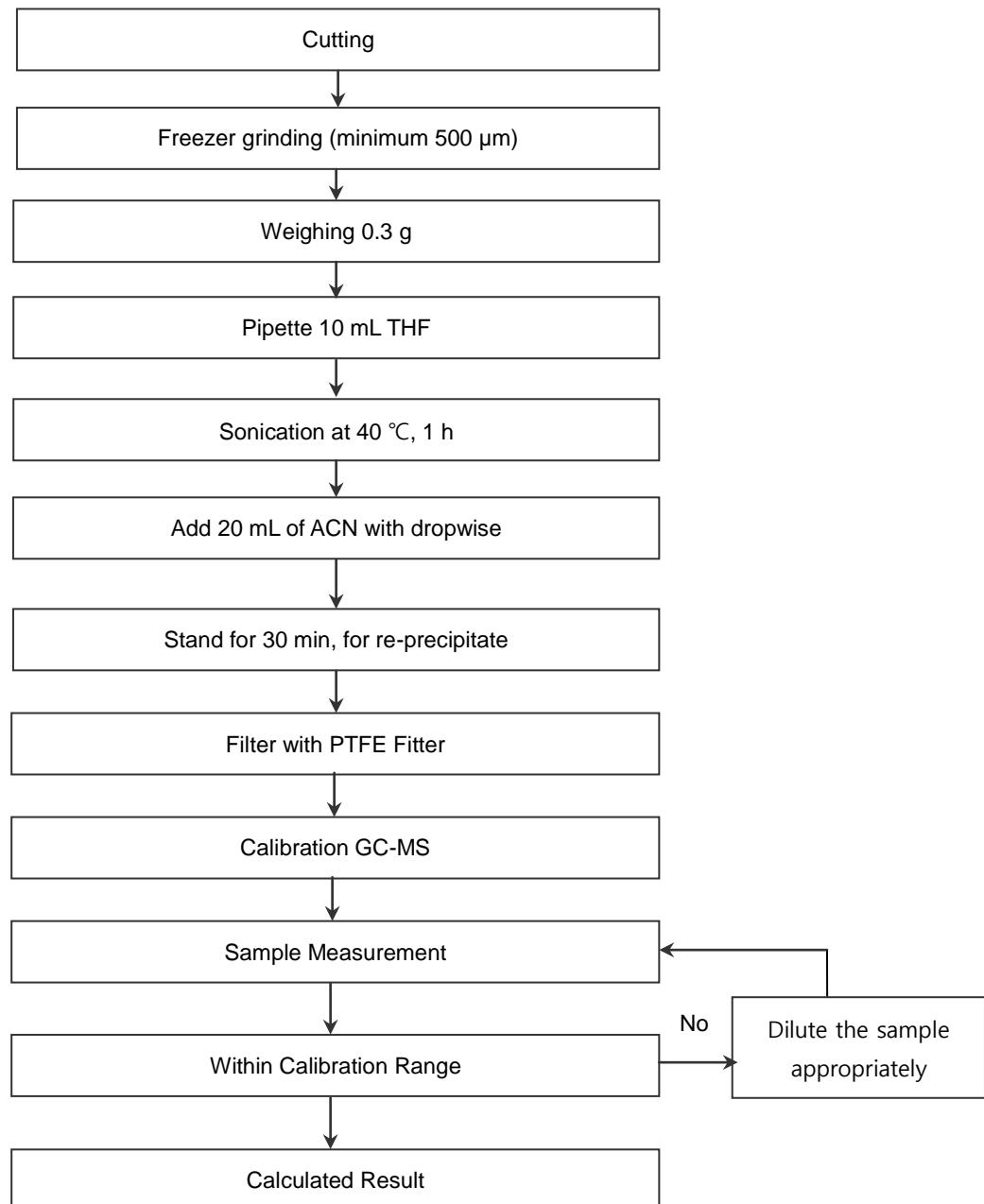
※ Remark : The result(s) shown is/are of the total weight of dried sample.

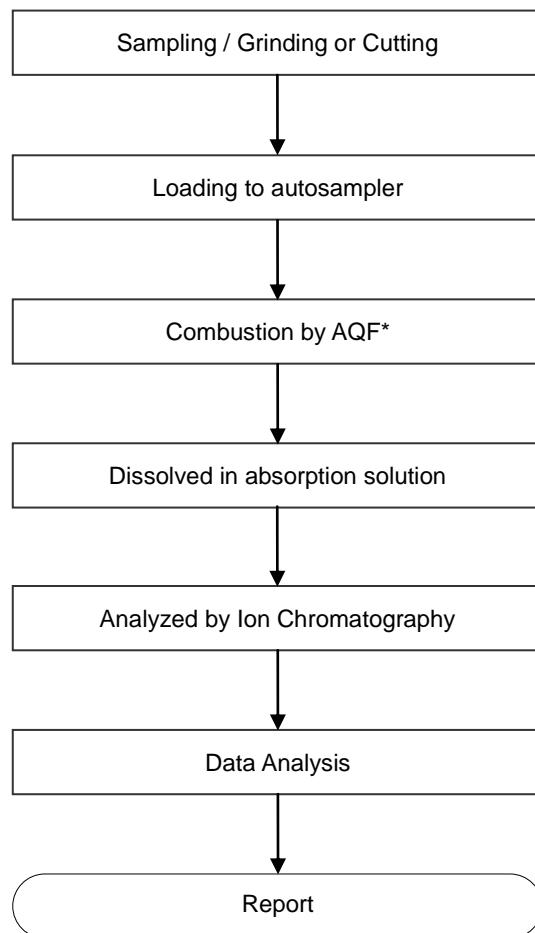
Flow Chart

RoHS

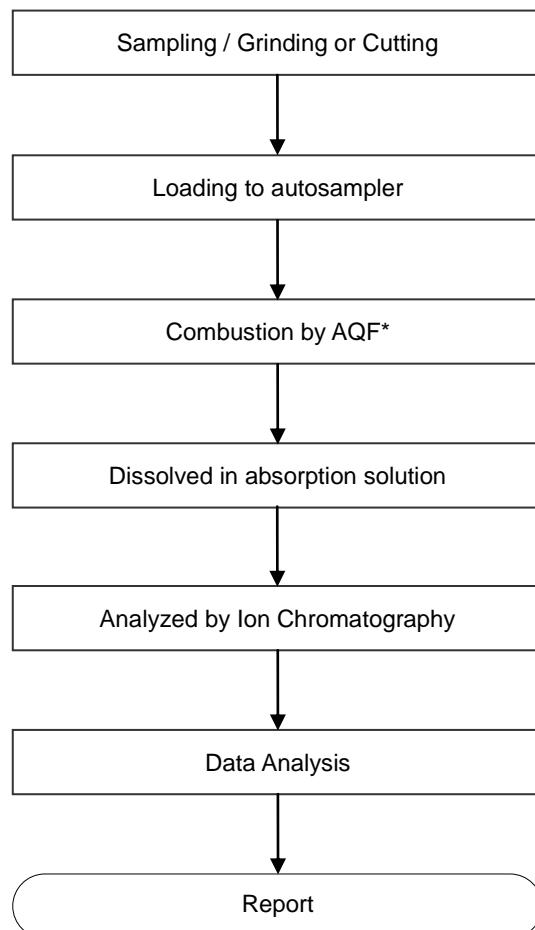


| Material | Digestion Acid |
|-------------|---|
| Polymers | HNO ₃ , HCl, HF, H ₂ O ₂ , H ₂ SO ₄ , etc. |
| Metals | HNO ₃ , HCl |
| Electronics | HNO ₃ , HCl, HF, H ₂ O ₂ , H ₂ SO ₄ , etc. |

Flow Chart**Phthalates**

Flow Chart**Halogen**

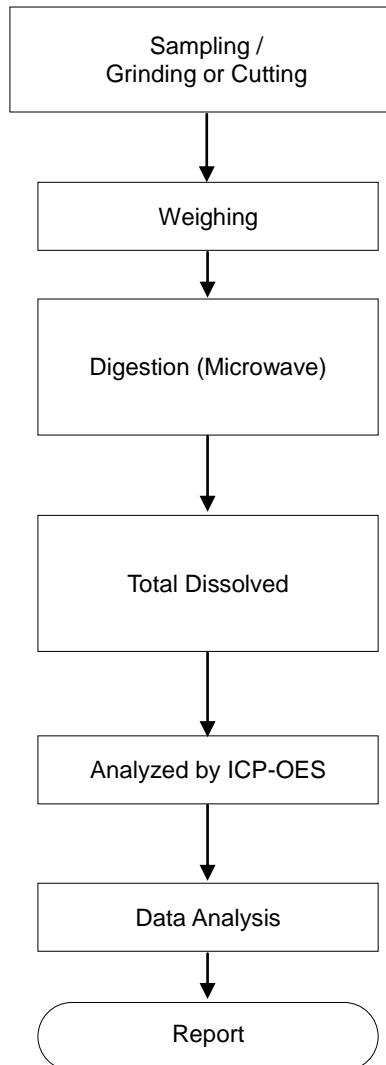
*AQF : Automated Quick Furnace

Flow Chart**Sulfur**

*AQF : Automated Quick Furnace

Flow Chart

Heavy metal



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