



# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 1 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

The following sample(s) was/were submitted and identified by the applicant as:

Sample Submitted By : MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
Sample Name : COPPER CLAD LAMINATES & PREPREGS  
Style/Item No. : CCL-HL830NSF(WITHOUT COPPER FOIL), CCL-HL830NSF(TYPE-LC),  
CCL-HL830NSF(TYPE-HD)(WITHOUT COPPER FOIL), CCL-HL830NSF  
(TYPE-LCA)(WITHOUT COPPER FOIL), CCL-HL830NSF(TYPE-LCH)(WITHOUT  
COPPER FOIL), CCL-HL830NSF(TYPE-LCX)(WITHOUT COPPER FOIL),  
CCL-HL832NSF(WITHOUT COPPER FOIL), CCL-HL832NSF(TYPE-LC),  
CCL-HL832NSF(TYPE-HD)(WITHOUT COPPER FOIL), CCL-HL832NSF  
(TYPE-LCA)(WITHOUT COPPER FOIL), CCL-HL832NSF(TYPE-LCH)(WITHOUT  
COPPER FOIL), CCL-HL832NSF(TYPE-LCX)(WITHOUT COPPER FOIL),  
CCL-HL832NSFEX(TYPE-LC)(WITHOUT COPPER FOIL), GHPL-830NSF,  
GHPL-830NSF(TYPE-HD), GHPL-830NSF(TYPE-LC), GHPL-830NSF(TYPE-LCA),  
GHPL-830NSF(TYPE-LCH), GHPL-830NSF(TYPE-LCX), GHPL-832NSF, GHPL-832NSF  
(TYPE-HD), GHPL-832NSF(TYPE-LC), GHPL-832NSF(TYPE-LCA), GHPL-832NSF  
(TYPE-LCH), GHPL-832NSF(TYPE-LCX)

Lot No. : MGC 2024-016

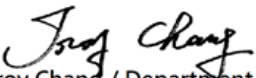
Sample Receiving Date : 18-Nov-2024

Testing Period : 18-Nov-2024 to 22-Nov-2024

Test Requested : (1) As specified by client, with reference to RoHS 2011/65/EU Annex II and amending  
Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs,  
DBP, BBP, DEHP, DIBP contents in the submitted sample(s).  
(2) Please refer to next pages for the other item(s).

Test Results : Please refer to following pages.

Conclusion : (1) Based on the performed tests on submitted sample(s), the test results of Cadmium,  
Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as  
set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

  
Troy Chang / Department Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



PIN CODE: 57479B86

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 2 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Test Part Description

No.1 : BLACK SHEET

## Test Result(s)

| Test Item(s)               | Method                                                                              | Unit  | MDL | Result | Limit |
|----------------------------|-------------------------------------------------------------------------------------|-------|-----|--------|-------|
|                            |                                                                                     |       |     | No.1   |       |
| Cadmium (Cd)               | With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.             | mg/kg | 2   | n.d.   | 100   |
| Lead (Pb)                  | With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.             | mg/kg | 2   | n.d.   | 1000  |
| Mercury (Hg)               | With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES. | mg/kg | 2   | n.d.   | 1000  |
| Hexavalent Chromium Cr(VI) | With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.            | mg/kg | 8   | n.d.   | 1000  |
| Monobromobiphenyl          | With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.               | mg/kg | 5   | n.d.   | -     |
| Dibromobiphenyl            |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Tribromobiphenyl           |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Tetrabromobiphenyl         |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Pentabromobiphenyl         |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Hexabromobiphenyl          |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Heptabromobiphenyl         |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Octabromobiphenyl          |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Nonabromobiphenyl          |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Decabromobiphenyl          |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Sum of PBBs                |                                                                                     | mg/kg | -   | n.d.   | 1000  |
| Monobromodiphenyl ether    |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Dibromodiphenyl ether      |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Tribromodiphenyl ether     |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Tetrabromodiphenyl ether   |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Pentabromodiphenyl ether   |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Hexabromodiphenyl ether    |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Heptabromodiphenyl ether   |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Octabromodiphenyl ether    |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Nonabromodiphenyl ether    |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Decabromodiphenyl ether    |                                                                                     | mg/kg | 5   | n.d.   | -     |
| Sum of PBDEs               |                                                                                     | mg/kg | -   | n.d.   | 1000  |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 3 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
 5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                            | Method                                                                                                                                                                                        | Unit  | MDL   | Result   | Limit |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|----------|-------|
|                                                                         |                                                                                                                                                                                               |       |       | No.1     |       |
| Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7)                       | With reference to RSTS-E&E-121, analysis was performed by LC/MS.                                                                                                                              | mg/kg | 10    | n.d.     | -     |
| Polychlorinated biphenyls (PCBs)                                        | With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.                                                                                                                        | mg/kg | 0.5   | n.d.     | -     |
| Polychlorinated naphthalene (PCNs)                                      | With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.                                                                                                                        | mg/kg | 5     | n.d.     | -     |
| Polychlorinated terphenyls (PCTs)                                       | With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.                                                                                                                        | mg/kg | 0.5   | n.d.     | -     |
| Short Chain Chlorinated Paraffins(C10-C13) (SCCP) (CAS No.: 85535-84-8) | With reference to ISO 18219-1: 2021, analysis was performed by GC/MS.                                                                                                                         | mg/kg | 50    | n.d.     | -     |
| Tributyl tin (TBT)                                                      | With reference to ISO 17353: 2004, analysis was performed by GC/FPD.                                                                                                                          | mg/kg | 0.03  | n.d.     | -     |
| Bis(tributyltin) oxide (TBTO) (CAS No.: 56-35-9)                        | Calculated from the result of Tributyl Tin (TBT).                                                                                                                                             | mg/kg | 0.03▲ | n.d.     | -     |
| Triphenyl tin (TPT)                                                     | With reference to ISO 17353: 2004, analysis was performed by GC/FPD.                                                                                                                          | mg/kg | 0.03  | n.d.     | -     |
| Polyvinyl chloride (PVC)                                                | With reference to ASTM E1252: 2021, analysis was performed by FT-IR and Flame Test.                                                                                                           | **    | -     | Negative | -     |
| Asbestos                                                                |                                                                                                                                                                                               |       |       |          |       |
| Actinolite (CAS No.: 77536-66-4)                                        | With reference to EPA 600/R-93/116: 1993, analysis was performed by Stereo Microscope (SM), Dispersion Staining Polarized Light Microscope (DS-PLM) and X-ray Diffraction Spectrometer (XRD). | -     | -     | Negative | -     |
| Amosite (CAS No.: 12172-73-5)                                           |                                                                                                                                                                                               | -     | -     | Negative | -     |
| Anthophyllite (CAS No.: 77536-67-5)                                     |                                                                                                                                                                                               | -     | -     | Negative | -     |
| Chrysotile (CAS No.: 12001-29-5)                                        |                                                                                                                                                                                               | -     | -     | Negative | -     |
| Crocidolite (CAS No.: 12001-28-4)                                       |                                                                                                                                                                                               | -     | -     | Negative | -     |
| Tremolite (CAS No.: 77536-68-6)                                         |                                                                                                                                                                                               | -     | -     | Negative | -     |
| AZO Dyes                                                                |                                                                                                                                                                                               |       |       |          |       |
| 4-aminobiphenyl (CAS No.: 92-67-1)                                      | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                                                                                                         | mg/kg | 3     | n.d.     | -     |
| Benzidine (CAS No.: 92-87-5)                                            | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                                                                                                         | mg/kg | 3     | n.d.     | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 4 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                  | Method                                                                                | Unit  | MDL | Result | Limit |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|-----|--------|-------|
|                                                               |                                                                                       |       |     | No.1   |       |
| 4-chloro-o-toluidine (CAS No.: 95-69-2)                       | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 2-naphthylamine (CAS No.: 91-59-8)                            | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| o-aminoazotoluene (CAS No.: 97-56-3)                          | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 5-nitro-o-toluidine (CAS No.: 99-55-8)                        | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 4-chloroaniline (CAS No.: 106-47-8)                           | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 2,4-diaminoanisole (CAS No.: 615-05-4)                        | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 4,4'-diaminodiphenylmethane (MDA) (CAS No.: 101-77-9)         | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 3,3'-dichlorobenzidine (CAS No.: 91-94-1)                     | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 3,3'-dimethoxybenzidine (CAS No.: 119-90-4)                   | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 3,3'-dimethylbenzidine (CAS No.: 119-93-7)                    | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 3,3'-dimethyl-4,4'-diaminodiphenylmethane (CAS No.: 838-88-0) | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 2-methoxy-5-methylaniline (CAS No.: 120-71-8)                 | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD. | mg/kg | 3   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 5 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                | Method                                                                                                          | Unit  | MDL | Result | Limit |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------|-----|--------|-------|
|                                                             |                                                                                                                 |       |     | No.1   |       |
| 4,4'-methylene-bis-(2-chloroaniline)<br>(CAS No.: 101-14-4) | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| 4,4'-oxydianiline (CAS No.: 101-80-4)                       | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| 4,4'-thiodianiline (CAS No.: 139-65-1)                      | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| o-toluidine (CAS No.: 95-53-4)                              | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| 2,4-diaminotoluene (CAS No.: 95-80-7)                       | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| 2,4,5-trimethylaniline (CAS No.: 137-17-7)                  | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| o-anisidine (CAS No.: 90-04-0)                              | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| 4-aminoazobenzene (CAS No.: 60-09-3)                        | With reference to EN ISO 14362-1: 2017 or/and EN ISO 14362-3: 2017, analysis was performed by GC/MS & HPLC/DAD. | mg/kg | 3   | n.d.   | -     |
| 2,4-xylydine (CAS No.: 95-68-1)                             | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| 2,6-xylydine (CAS No.: 87-62-7)                             | With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.                           | mg/kg | 3   | n.d.   | -     |
| Dibutyl phthalate (DBP)                                     | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.                                           | mg/kg | 50  | n.d.   | 1000  |
| Butyl benzyl phthalate (BBP)                                | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.                                           | mg/kg | 50  | n.d.   | 1000  |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 6 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                  | Method                                                                | Unit  | MDL | Result | Limit |
|---------------------------------------------------------------|-----------------------------------------------------------------------|-------|-----|--------|-------|
|                                                               |                                                                       |       |     | No.1   |       |
| Di-(2-ethylhexyl) phthalate (DEHP)                            | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | 1000  |
| Diisodecyl phthalate (DIDP) (CAS No.: 26761-40-0, 68515-49-1) | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Diisononyl phthalate (DINP) (CAS No.: 28553-12-0, 68515-48-0) | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Di-n-octyl phthalate (DNOP) (CAS No.: 117-84-0)               | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Diisobutyl phthalate (DIBP)                                   | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | 1000  |
| Di-ethyl phthalate (DEP) (CAS No.: 84-66-2)                   | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Dimethyl phthalate (DMP) (CAS No.: 131-11-3)                  | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Diisooctyl phthalate (DIOP) (CAS No.: 27554-26-3)             | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Dipropyl phthalate (DPrP) (CAS No.: 131-16-8)                 | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Di-cyclohexyl phthalate (DCHP) (CAS No.: 84-61-7)             | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Di-n-nonyl phthalate (DNNP) (CAS No.: 84-76-4)                | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Di-2-ethylhexyl adipate (DEHA) (CAS No.: 103-23-1)            | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Di-n-pentyl phthalate (DNPP) (CAS No.: 131-18-0)              | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Di-n-hexyl phthalate (DNHP) (CAS No.: 84-75-3)                | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Di-n-heptyl phthalate (CAS No.: 3648-21-3)                    | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Undecyl dodecyl phthalate (CAS No.: 68515-47-9)               | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Diundecyl phthalate (DUP) (CAS No.: 3648-20-2)                | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |
| Dipropylheptyl phthalate (CAS No.: 53306-54-0)                | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS. | mg/kg | 50  | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 7 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                                                          | Method                                                                 | Unit  | MDL | Result | Limit |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                                                                                                       |                                                                        |       |     | No.1   |       |
| bis(2-n-Butoxyethyl) phthalate (DBEP) (CAS No.: 117-83-9)                                             | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| Bis(2-ethoxyethyl) phthalate (DEEP) (CAS No.: 605-54-9)                                               | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| Bis(2-methoxyethyl) phthalate (DMEP) (CAS No.: 117-82-8)                                              | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| bis(4-Methyl-2-pentyl) phthalate (BMPP) (CAS No.: 146-50-9)                                           | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| Dibenzyl phthalate (CAS No.: 523-31-9)                                                                | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| Diphenyl phthalate (DPhP) (CAS No.: 84-62-8)                                                          | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| Diisopentyl phthalate (DIPP) (CAS No.: 605-50-5)                                                      | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| N-pentyl iso-pentyl phthalate (NIIPP) (CAS No.: 776297-69-9)                                          | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| Diisononyl adipate (CAS No.: 33703-08-1)                                                              | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) (CAS No.: 68515-42-4) | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) (CAS No.: 71888-89-6)     | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear (DHP) (CAS No.: 68515-50-4)          | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DPP) (CAS No.: 84777-06-0)          | With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.  | mg/kg | 50  | n.d.   | -     |
| Formaldehyde (CAS No.: 50-00-0)                                                                       | With reference to ISO 17226-1: 2021, analysis was performed by LC/DAD. | mg/kg | 3   | n.d.   | -     |
| Mirex (CAS No.: 2385-85-5)                                                                            | With reference to US EPA 3550C: 2007, analysis was performed by GC/MS. | mg/kg | 5   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 8 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                                                     | Method                                                                    | Unit  | MDL  | Result | Limit |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|------|--------|-------|
|                                                                                                  |                                                                           |       |      | No.1   |       |
| Perfluorooctane sulfonates and its salts (PFOS and its salts) (CAS No.: 1763-23-1 and its salts) | With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS. | mg/kg | 0.01 | n.d.   | -     |
| Perfluorooctanoic acid and its salts (PFOA and its salts) (CAS No.: 335-67-1 and its salts)      | With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS. | mg/kg | 0.01 | n.d.   | -     |
| Antimony (Sb) (CAS No.: 7440-36-0)                                                               | With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.   | mg/kg | 2    | n.d.   | -     |
| Beryllium (Be) (CAS No.: 7440-41-7)                                                              | With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.   | mg/kg | 2    | n.d.   | -     |
| <b>Chlorofluorocarbons (CFCs)</b>                                                                |                                                                           |       |      |        |       |
| CFC-13 (CAS No.: 75-72-9)                                                                        | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-111 (CAS No.: 354-56-3)                                                                      | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-112 (CAS No.: 76-12-0)                                                                       | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-211 (CAS No.: 422-78-6)                                                                      | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-212 (CAS No.: 3182-26-1)                                                                     | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-213 (CAS No.: 2354-06-5)                                                                     | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-214 (CAS No.: 29255-31-0)                                                                    | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-215 (CAS No.: 4259-43-2)                                                                     | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-216 (CAS No.: 661-97-2)                                                                      | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-217 (CAS No.: 422-86-6)                                                                      | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-12 (CAS No.: 75-71-8)                                                                        | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |
| CFC-11 (CAS No.: 75-69-4)                                                                        | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.    | mg/kg | 1    | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 9 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                            | Method                                                                 | Unit  | MDL | Result | Limit |
|-----------------------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                                         |                                                                        |       |     | No.1   |       |
| CFC-115 (CAS No.: 76-15-3)              | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| CFC-114 (CAS No.: 76-14-2)              | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| CFC-113 (CAS No.: 76-13-1)              | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| <b>Hydrochlorofluorocarbons (HCFCs)</b> |                                                                        |       |     |        |       |
| HCFC-21 (CAS No.: 75-43-4)              | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-22 (CAS No.: 75-45-6)              | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-31 (CAS No.: 593-70-4)             | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-121 (CAS No.: 354-14-3)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-122 (CAS No.: 354-21-2)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-123 (CAS No.: 306-83-2)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-124 (CAS No.: 2837-89-0)           | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-131 (CAS No.: 359-28-4)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-142b (CAS No.: 75-68-3)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-221 (CAS No.: 422-26-4)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-222 (CAS No.: 422-49-1)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-223 (CAS No.: 422-52-6)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-224 (CAS No.: 422-54-8)            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-225ca (CAS No.: 422-56-0)          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 10 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                   | Method                                                                 | Unit  | MDL | Result | Limit |
|--------------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                                |                                                                        |       |     | No.1   |       |
| HCFC-225cb (CAS No.: 507-55-1) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-226 (CAS No.: 431-87-8)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-231 (CAS No.: 421-94-3)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-232 (CAS No.: 460-89-9)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-233 (CAS No.: 7125-84-0)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-234 (CAS No.: 425-94-5)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-235 (CAS No.: 460-92-4)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-241 (CAS No.: 666-27-3)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-242 (CAS No.: 460-63-9)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-244                       | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-251 (CAS No.: 421-41-0)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-252 (CAS No.: 819-00-1)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-261 (CAS No.: 420-97-3)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-262 (CAS No.: 421-02-03)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-271 (CAS No.: 430-55-7)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-141b (CAS No.: 1717-00-6) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-243 (CAS No.: 460-69-5)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-253 (CAS No.: 460-35-5)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 11 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                           | Method                                                                 | Unit  | MDL | Result | Limit |
|----------------------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                                        |                                                                        |       |     | No.1   |       |
| HCFC-141                               | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-142                               | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-151                               | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-225                               | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-133                               | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HCFC-132                               | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| <b>Halons</b>                          |                                                                        |       |     |        |       |
| Halon-1211 (CAS No.: 353-59-3)         | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Halon-1301 (CAS No.: 75-63-8)          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Halon-2402 (CAS No.: 124-73-2)         | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Halon-1202 (CAS No.: 75-61-6)          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Methyl Bromide (CAS No.: 74-83-9)      | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| <b>Hydrobromofluorocarbons (HBFCs)</b> |                                                                        |       |     |        |       |
| HBFC-271B1 (C3H6FBr)                   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-262B1 (C3H5F2Br)                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-261B2 (C3H5FBr2)                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-253B1 (C3H4F3Br)                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-252B2 (C3H4F2Br2)                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-244B1 (C3H3F4Br)                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 12 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)           | Method                                                                 | Unit  | MDL | Result | Limit |
|------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                        |                                                                        |       |     | No.1   |       |
| HBFC-243B2 (C3H3F3Br2) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-242B3 (C3H3F2Br3) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-241B4 (C3H3FBr4)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-235B1 (C3H2F5Br)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-234B2 (C3H2F4Br2) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-233B3 (C3H2F3Br3) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-232B4 (C3H2F2Br4) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-231B5 (C3H2FBr5)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-226B1 (C3HF6Br)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-225B2 (C3HF5Br2)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-224B3 (C3HF4Br3)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-223B4 (C3HF3Br4)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-222B5 (C3HF2Br5)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-221B6 (C3HFBr6)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-151B1 (C2H4FBr)   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-142B1 (C2H3F2Br)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-141B2 (C2H3FBr2)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-133B1 (C2H2F3Br)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 13 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                            | Method                                                                 | Unit  | MDL | Result | Limit |
|-----------------------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                                         |                                                                        |       |     | No.1   |       |
| HBFC-132B2 (C2H2F2Br2)                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-131B3 (C2H2FBr3)                   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-124B1 (C2HF4Br)                    | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-123B2 (C2HF3Br2)                   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-122B3 (C2HF2Br3)                   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-121B4 (C2HFBr4)                    | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-31B1 (CH2FBr) (CAS No.: 373-52-4)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-22B1 (CHF2Br) (CAS No.: 1511-62-2) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-21B2 (CHFBr2) (CAS No.: 1868-53-7) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HBFC-251B1                              | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| <b>Hydrofluorocarbon (HFCs)</b>         |                                                                        |       |     |        |       |
| HFC-23 (CHF3) (CAS No.: 75-46-7)        | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-32 (CH2F2) (CAS No.: 75-10-5)       | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-41 (CH3F) (CAS No.: 593-53-3)       | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-43-10mee (C5H2F10)                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-125 (C2HF5)                         | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-134 (C2H2F4)                        | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-134a (CH2FCF3) (CAS No.: 811-97-2)  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 14 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                 | Method                                                                 | Unit  | MDL | Result | Limit |
|----------------------------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                                              |                                                                        |       |     | No.1   |       |
| HFC-143 (C2H3F3)                             | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-143a (C2H3F3)                            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-152a (C2H4F2) (CAS No.: 75-37-6)         | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-227ea (C3HF7) (CAS No.: 431-89-0)        | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-236fa (CAS No.: 431-63-0)                | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-245ca (C3H3F5)                           | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-245fa (C3H3F5)                           | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-365mfc (C4H5F5)                          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-236ea (C3H2F6) (CAS No.: 431-63-0)       | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-236cb                                    | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-161                                      | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| HFC-152                                      | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| <b>Perfluorocarbon (PFCs)</b>                |                                                                        |       |     |        |       |
| 2-Perfluoromethylpentane (CAS No.: 355-04-4) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Decafluorobutane (CAS No.: 355-25-9)         | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| F14 (CAS No.: 75-73-0)                       | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Fluorocarbon 116 (CAS No.: 76-16-4)          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Freon 218 (CAS No.: 76-19-7)                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 15 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                           | Method                                                                 | Unit  | MDL | Result | Limit |
|--------------------------------------------------------|------------------------------------------------------------------------|-------|-----|--------|-------|
|                                                        |                                                                        |       |     | No.1   |       |
| Freon C318 (CAS No.: 115-25-3)                         | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Perfluorohexane (CAS No.: 355-42-0)                    | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Perfluoro-n-pentane (CAS No.: 678-26-2)                | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Perfluorodecalin (CAS No.: 306-94-5)                   | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| <b>Chlorinate hydrocarbon (CHCs)</b>                   |                                                                        |       |     |        |       |
| 1,1-Dichloropropene (CAS No.: 563-58-6)                | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| 1,2-Dichloroethane (CAS No.: 107-06-2)                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| 2,2-Dichloropropane (CAS No.: 594-20-7)                | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Carbon tetrachloride (CAS No.: 56-23-5)                | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Chloromethane (CAS No.: 74-87-3)                       | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| cis-1,2-Dichloroethene (CAS No.: 156-59-2)             | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| cis-1,3-Dichloropropene (CAS No.: 10061-01-5)          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Hexachlorobutadiene (CAS No.: 87-68-3)                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| trans-1,2-Dichloroethene (CAS No.: 156-60-5)           | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| trans-1,3-Dichloropropene (CAS No.: 10061-02-6)        | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| Dichloromethane, Methylene chloride (CAS No.: 75-09-2) | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| 1,2-Dichloropropane (CAS No.: 78-87-5)                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |
| 1,1,1,2-Tetrachloroethane (CAS No.: 630-20-6)          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg | 1   | n.d.   | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 16 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                                                                                                                                                             | Method                                                                 | Unit          | MDL | Result    | Limit |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|-----|-----------|-------|
|                                                                                                                                                                                                          |                                                                        |               |     | No.1      |       |
| 1,1,1-Trichloroethane (CAS No.: 71-55-6)                                                                                                                                                                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| 1,1,2-Trichloroethane (CAS No.: 79-00-5)                                                                                                                                                                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| 1,1,2,2-Tetrachloroethane (CAS No.: 79-34-5)                                                                                                                                                             | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| 1,1-Dichloroethylene (CAS No.: 75-35-4)                                                                                                                                                                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| 1,1-Dichloroethane (CAS No.: 75-34-3)                                                                                                                                                                    | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| Chloroethane (CAS No.: 75-00-3)                                                                                                                                                                          | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| Tetrachloroethene (CAS No.: 127-18-4)                                                                                                                                                                    | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| Trichloroethylene (CAS No.: 79-01-6)                                                                                                                                                                     | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| 1,3-Dichloropropane (CAS No.: 142-28-9)                                                                                                                                                                  | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| Chloroform (CAS No.: 67-66-3)                                                                                                                                                                            | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| 1,2,3-Trichloropropane (CAS No.: 96-18-4)                                                                                                                                                                | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| Bromochloromethan (CAS No.: 74-97-5)                                                                                                                                                                     | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| Sulfur hexafluoride (CAS No.: 2551-62-4)                                                                                                                                                                 | With reference to US EPA 5021A: 2014, analysis was performed by GC/MS. | mg/kg         | 1   | n.d.      | -     |
| 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) (CAS No.: 3846-71-7)                                                                                                                                | With reference to US EPA 3550C: 2007, analysis was performed by GC/MS. | mg/kg         | 5   | n.d.      | -     |
| Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ - HBCDD, $\beta$ - HBCDD, $\gamma$ - HBCDD) (CAS No.: 25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)) | With reference to IEC 62321: 2008, analysis was performed by GC/MS.    | mg/kg         | 5   | n.d.      | -     |
| Radioactive substances                                                                                                                                                                                   | Geiger counter.                                                        | $\mu$ Sv/hour | -   | Negative* | -     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 17 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
 5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Test Item(s)                                                             | Method                                                                  | Unit  | MDL  | Result | Limit |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------|-------|------|--------|-------|
|                                                                          |                                                                         |       |      | No.1   |       |
| Medium Chain Chlorinated Paraffins(C14-C17) (MCCP) (CAS No.: 85535-85-9) | With reference to ISO 18219-2: 2021, analysis was performed by GC/MS.   | mg/kg | 50   | n.d.   | -     |
| Selenium (Se) (CAS No.: 7782-49-2)                                       | With reference to US EPA 3052: 1996, analysis was performed by ICP-OES. | mg/kg | 2    | n.d.   | -     |
| Bismuth (Bi) (CAS No.: 7440-69-9)                                        | With reference to US EPA 3052: 1996, analysis was performed by ICP-OES. | mg/kg | 2    | n.d.   | -     |
| Monomethyl dibromodiphenyl methane (DBBT) (CAS No.: 99688-47-8)          | With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.  | mg/kg | 0.5  | n.d.   | -     |
| Tris(2-chloroethyl) phosphate (TCEP) (CAS No.: 115-96-8)                 | With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.  | mg/kg | 5    | n.d.   | -     |
| Dibutyl tin (DBT)                                                        | With reference to ISO 17353: 2004, analysis was performed by GC/FPD.    | mg/kg | 0.03 | n.d.   | -     |
| Dioctyl tin (DOT)                                                        | With reference to ISO 17353: 2004, analysis was performed by GC/FPD.    | mg/kg | 0.03 | n.d.   | -     |
| Tin (Sn) (CAS No.: 7440-31-5)                                            | With reference to US EPA 3052: 1996, analysis was performed by ICP-OES. | mg/kg | 2    | n.d.   | -     |

## Note :

1. mg/kg = ppm ; 0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit
3. n.d. = Not Detected ( Less than MDL)
4. "-" = Not Regulated
5. \*\* = Qualitative analysis (No Unit)
6. Negative = Undetectable ; Positive = Detectable
7. Testing range of asbestos qualitative analysis is from less than 0.1% to 100%. The judgment criterion: asbestos fibers being found is shown as "Positive"; asbestos fibers not being found is shown as "Negative".
8. ▲ : The MDL was evaluated for element / tested substance.

Conversion Formula :  $AX = A \times F$

| AX                           | A                  | F      |
|------------------------------|--------------------|--------|
| Bis(tributyltin)oxide (TBTO) | Tributyl Tin (TBT) | 1.0276 |

Parameter Conversion Table : [https://eecloud.sgs.com/Region\\_TW/DocDownload.aspx?name=Others](https://eecloud.sgs.com/Region_TW/DocDownload.aspx?name=Others)

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 18 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

9. Negative\*/Positive\*: The test result of Geiger counter is from comparison between test outcome and environment background. In general, there is little radiation dose existing in environment. (Radiation dose from environment background usually less than or equal to  $0.2\mu\text{Sv/hr}$ )  
The test result less than environment background was shown as Negative\*; the result greater than environment background was shown as Positive\*.
10. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 19 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## PFAS Remark :

The quantitative technology of PFAS is to analyze the specific structure of PFAS substances. However, PFAS acid and its salts with the same carbon number group have the same specific structure that can be identified. The tested results of the analyzed specific structure cannot be distinguished to identify the contribution from PFAS acid or its salts. Therefore, the tested results display the sum of concentrations of PFAS acids and its salts with the same carbon number group. The concentration of PFAS substances in the below table have been included in the tested results, please refer to the table for relevant information: (The listed PFAS substances are examples only, it do not include all PFAS salts with the same carbon number group.)

| Group Name                    | Substance Name                                                                                                        | CAS No.     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------|
| PFOS, its salts & derivatives | Perfluorooctane sulfonates (PFOS)                                                                                     | 1763-23-1   |
|                               | Potassium perfluorooctanesulfonate (PFOS-K)                                                                           | 2795-39-3   |
|                               | Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)                                                                  | 29457-72-5  |
|                               | Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH <sub>4</sub> )                                                   | 29081-56-9  |
|                               | Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) <sub>2</sub> )                                             | 70225-14-8  |
|                               | Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )          | 56773-42-3  |
|                               | N-decyl-N,N-dimethyldecyl-1-aminium<br>1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonate (PFOS-DDA) | 251099-16-8 |
|                               | TetrabutylAmmonium perfluorooctanesulfonate (PFOS-N(C <sub>4</sub> H <sub>9</sub> ) <sub>4</sub> )                    | 111873-33-7 |
|                               | Perfluorooctane sulfonyl fluoride (POSF)                                                                              | 307-35-7    |
|                               | Perfluorooctanesulfonic acid, magnesium salt (PFOS-Mg)                                                                | 91036-71-4  |
|                               | Perfluorooctanesulfonic acid, sodium salt (PFOS-Na)                                                                   | 4021-47-0   |
|                               | Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctanesulfonate                                           | 71463-74-6  |
|                               | Perfluorooctanesulfonate (anion)                                                                                      | 45298-90-6  |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 20 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Group Name                    | Substance Name                                                                                                                                                                                       | CAS No.      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| PFOS, its salts & derivatives | 1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with N,N-diethylethanamine (1:1) (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>3</sub> )                            | 54439-46-2   |
|                               | Methanaminium, N,N,N-trimethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (PFOS-N(CH <sub>3</sub> ) <sub>4</sub> )                                                  | 56773-44-5   |
|                               | 1-Pentanaminium, N,N,N-tripropyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (PFOS-N(C <sub>3</sub> H <sub>7</sub> ) <sub>3</sub> (C <sub>5</sub> H <sub>11</sub> )) | 56773-56-9   |
|                               | 1-Butanaminium, N,N-dibutyl-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1) (PFOS-N(C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> (CH <sub>3</sub> ))            | 124472-68-0  |
|                               | Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)                                                                               | 213740-80-8  |
|                               | Sulfonium, diphenyl(2,4,6-trimethylphenyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)                                                                               | 258341-99-0  |
|                               | Pyridinium, 1-hexadecyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)                                                                                                  | 334529-63-4  |
|                               | 1-Decanaminium, N,N,N-triethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)                                                                                           | 773895-92-4  |
|                               | Tetrabutylphosphonium perfluorooctane sulfonate (PFOS-P(C <sub>4</sub> H <sub>9</sub> ) <sub>4</sub> )                                                                                               | 2185049-59-4 |
|                               | Perfluorooctanesulfonic acid diethylamine salt (PFOS-C <sub>4</sub> H <sub>11</sub> N)                                                                                                               | 2205029-08-7 |
|                               | Heptyldimethyl{2-[(2-methylprop-2-enoyl)oxy]ethyl}azanium perfluorooctanesulfonate (PFOS-C <sub>15</sub> H <sub>30</sub> NO <sub>2</sub> )                                                           | 1203998-97-3 |
|                               | 1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, 1,1'-anhydride (PFOSAN)                                                                                                   | 423-92-7     |

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# Test Report

No.: ETR24B02840

Date: 22-Nov-2024

Page: 21 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

| Group Name                    | Substance Name                                                                                                                           | CAS No.      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| PFOA, its salts & derivatives | Perfluorooctanoic acid (PFOA)                                                                                                            | 335-67-1     |
|                               | Sodium perfluorooctanoate (PFOA-Na)                                                                                                      | 335-95-5     |
|                               | Potassium perfluorooctanoate (PFOA-K)                                                                                                    | 2395-00-8    |
|                               | Silver perfluorooctanoate (PFOA-Ag)                                                                                                      | 335-93-3     |
|                               | Perfluorooctanoyl fluoride (PFOA-F)                                                                                                      | 335-66-0     |
|                               | Ammonium pentadecafluorooctanoate (APFO)                                                                                                 | 3825-26-1    |
|                               | Lithium perfluorooctanoate (PFOA-Li)                                                                                                     | 17125-58-5   |
|                               | Cobalt perfluorooctanoate (PFOA-Co)                                                                                                      | 35965-01-6   |
|                               | Cesium perfluorooctanoate (PFOA-Cs)                                                                                                      | 17125-60-9   |
|                               | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) (PFOA-Cr(3+))                                                | 68141-02-6   |
|                               | Pentadecafluorooctanoic acid--piperazine (2/1)PFOA-NH(C <sub>4</sub> H <sub>10</sub> N)                                                  | 423-52-9     |
|                               | Pentadecafluorooctanoate (anion)                                                                                                         | 45285-51-6   |
|                               | Perfluorooctanoic Anhydride                                                                                                              | 33496-48-9   |
|                               | Ethanaminium, N,N,N-triethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1)                                              | 98241-25-9   |
|                               | Tetramethylammoniumperfluorooctanoat                                                                                                     | 32609-65-7   |
|                               | 1-Propanaminium, N,N,N-tripropyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1)                                          | 277749-00-5  |
|                               | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, potassium salt, hydrate (1:1:2) (PFOA-K(H <sub>2</sub> O) <sub>2</sub> )  | 98065-31-7   |
|                               | Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, compd. with ethanamine (1:1) (PFOA-C <sub>2</sub> H <sub>7</sub> N)       | 1376936-03-6 |
|                               | Octanoic acid, pentadecafluoro-, compd. with pyridine (1:1) (9CI) (PFOA-C <sub>5</sub> H <sub>5</sub> N)                                 | 95658-47-2   |
|                               | Pentadecafluorooctanoic acid- 1-phenylpiperazine(1:1) (PFOA-C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> )                             | 1514-68-7    |
|                               | 1-Octanaminium, N,N,N-trimethyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanoate (1:1) (PFOA- C <sub>11</sub> H <sub>26</sub> N) | 927835-01-6  |

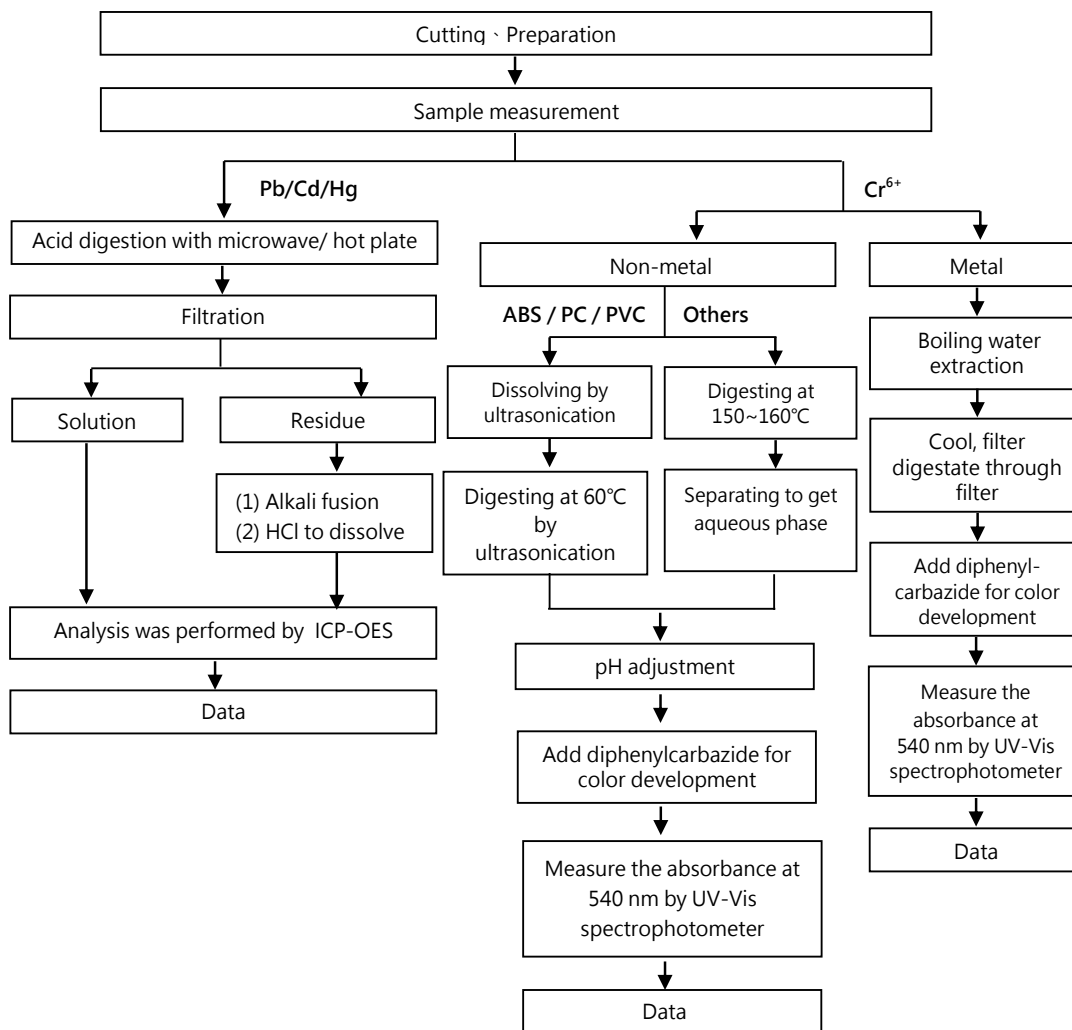
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MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart of heavy metal

These samples were dissolved totally by pre-conditioning method according to below flow chart.

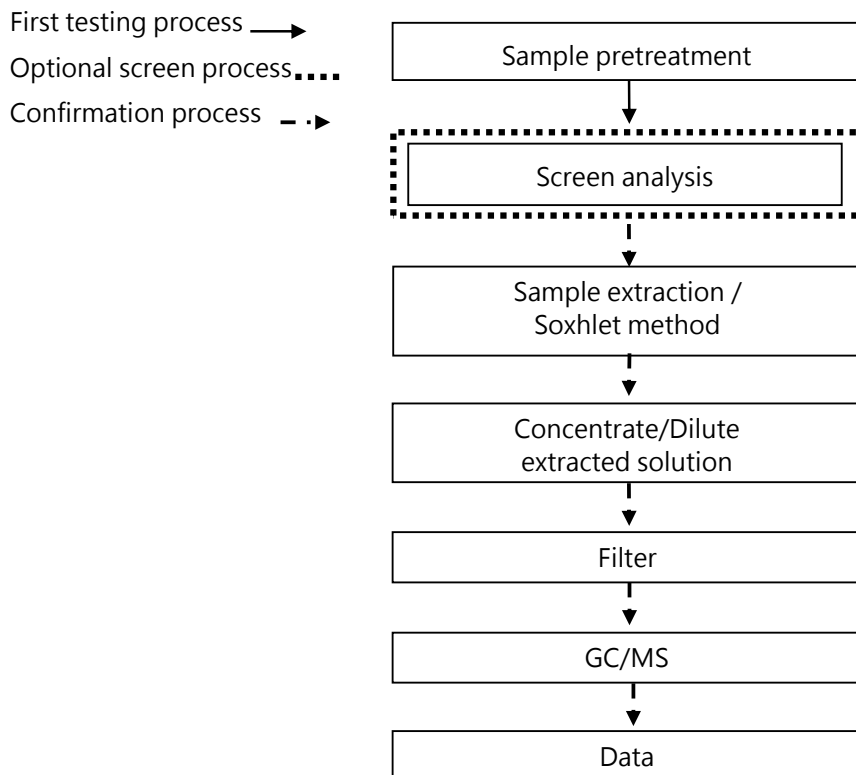
(  $\text{Cr}^{6+}$  test method excluded )



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5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart – PBBs / PBDEs



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# Test Report

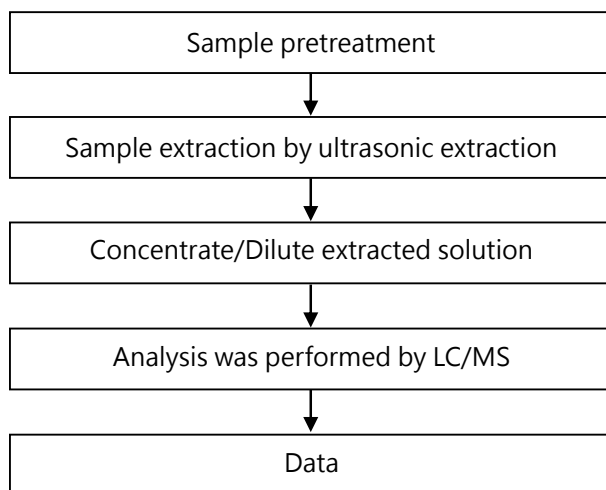
No.: ETR24B02840

Date: 22-Nov-2024

Page: 24 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart - TBBP-A



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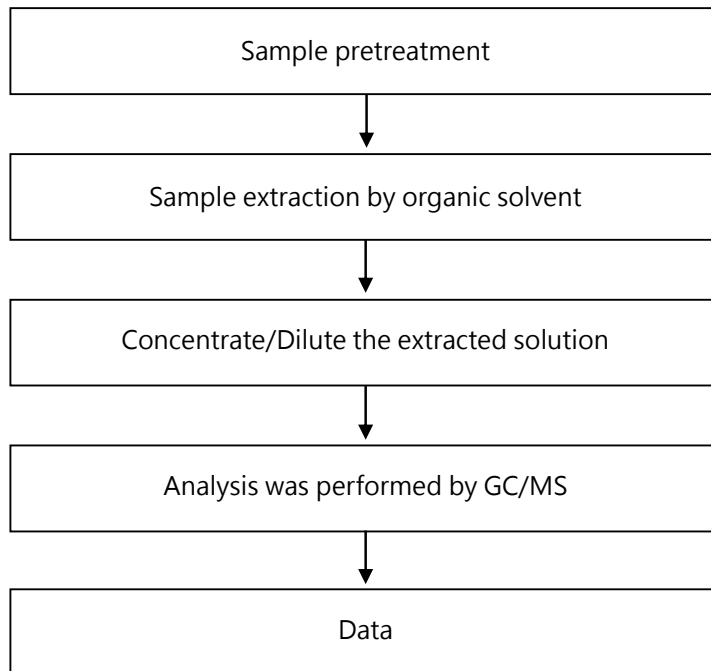
Date: 22-Nov-2024

Page: 25 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart

\* Apply to: PCBs, PCNs, PCTs, Mirex, Chlorinated Paraffins, DBBT



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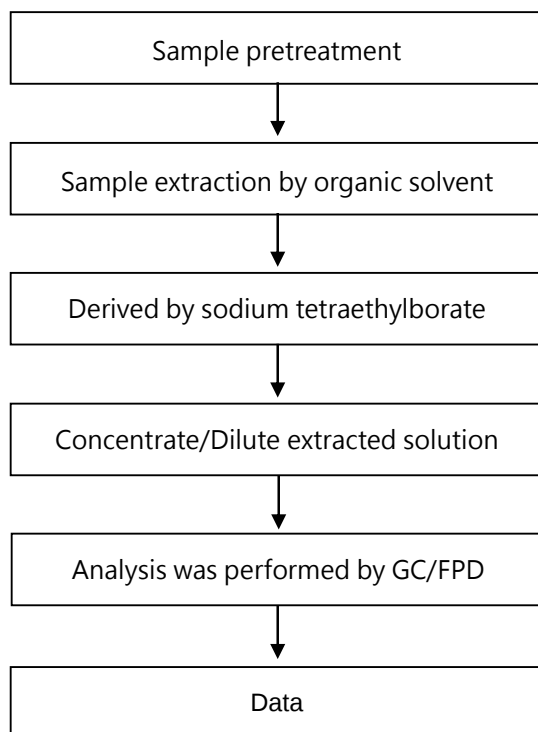
No.: ETR24B02840

Date: 22-Nov-2024

Page: 26 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart - Organic-Tin



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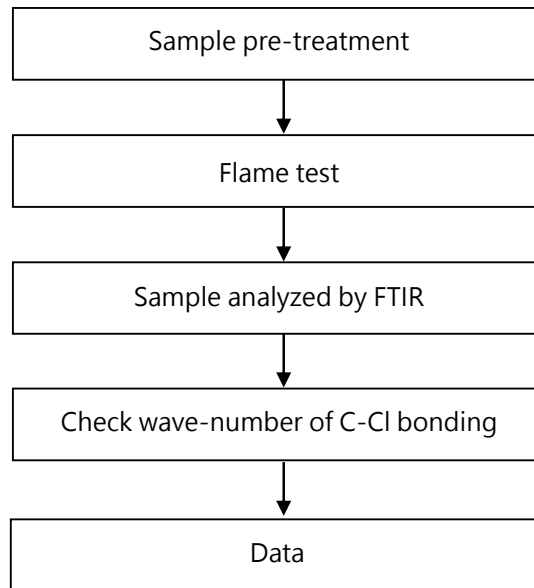
No.: ETR24B02840

Date: 22-Nov-2024

Page: 27 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analysis flow chart - PVC

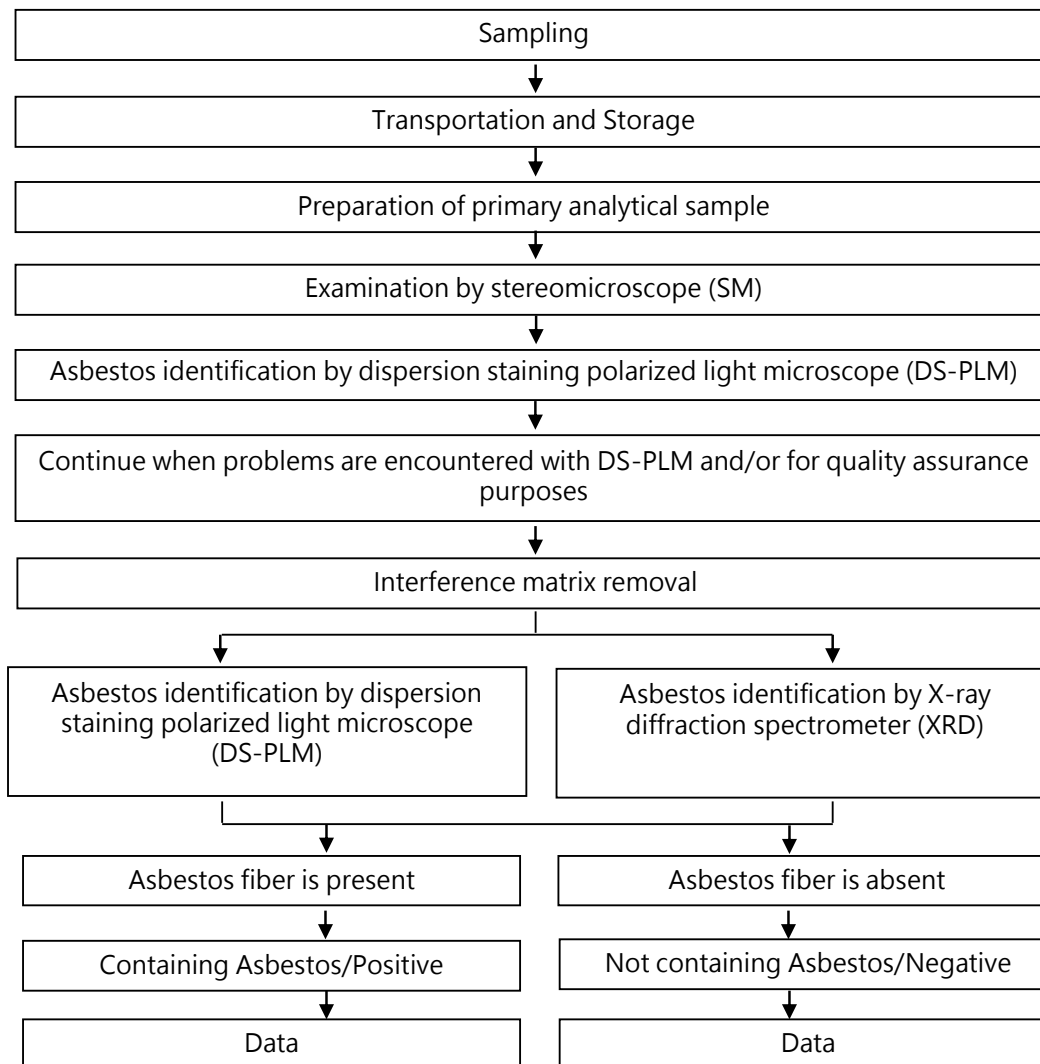


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MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analysis flow chart for determination of Asbestos

【Reference method: EPA 600/R-93/116】

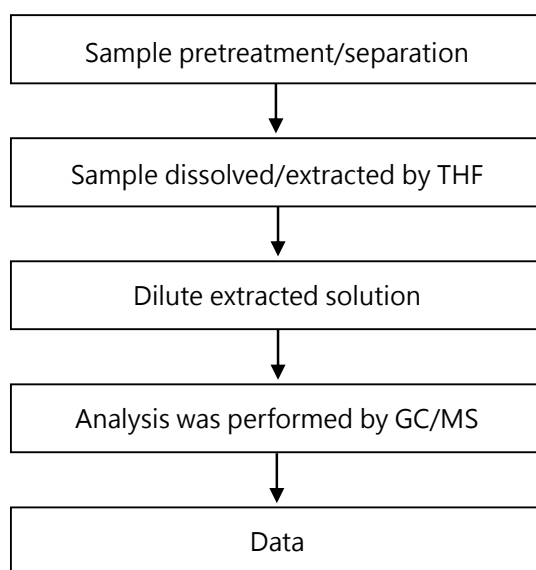


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MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart - Phthalate

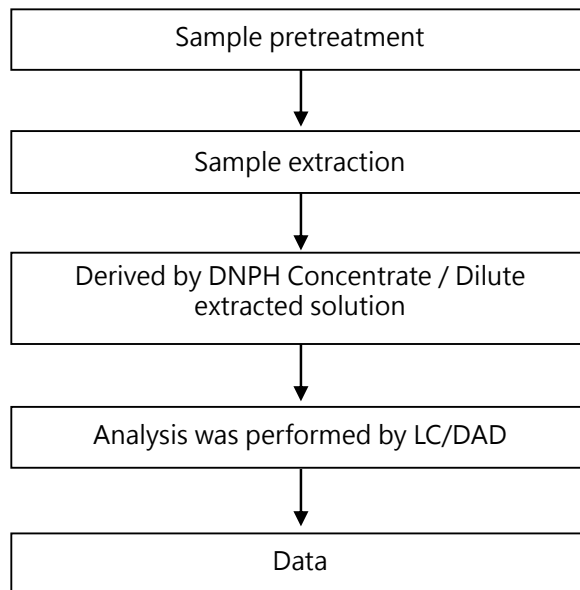
【Test method: IEC 62321-8】



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MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart - Formaldehyde



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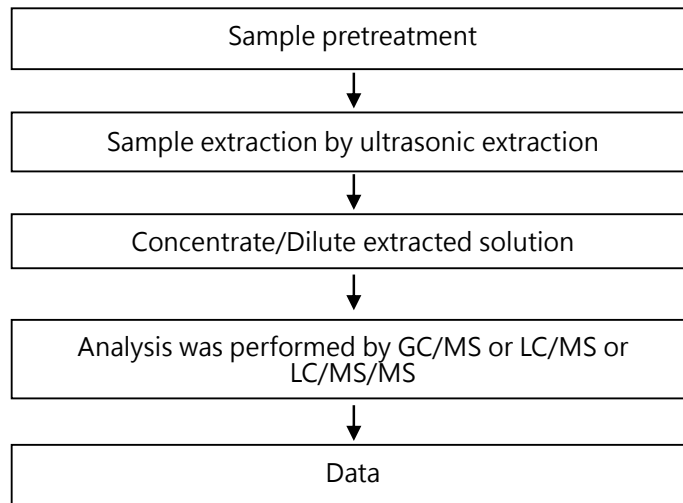
No.: ETR24B02840

Date: 22-Nov-2024

Page: 31 of 36

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)



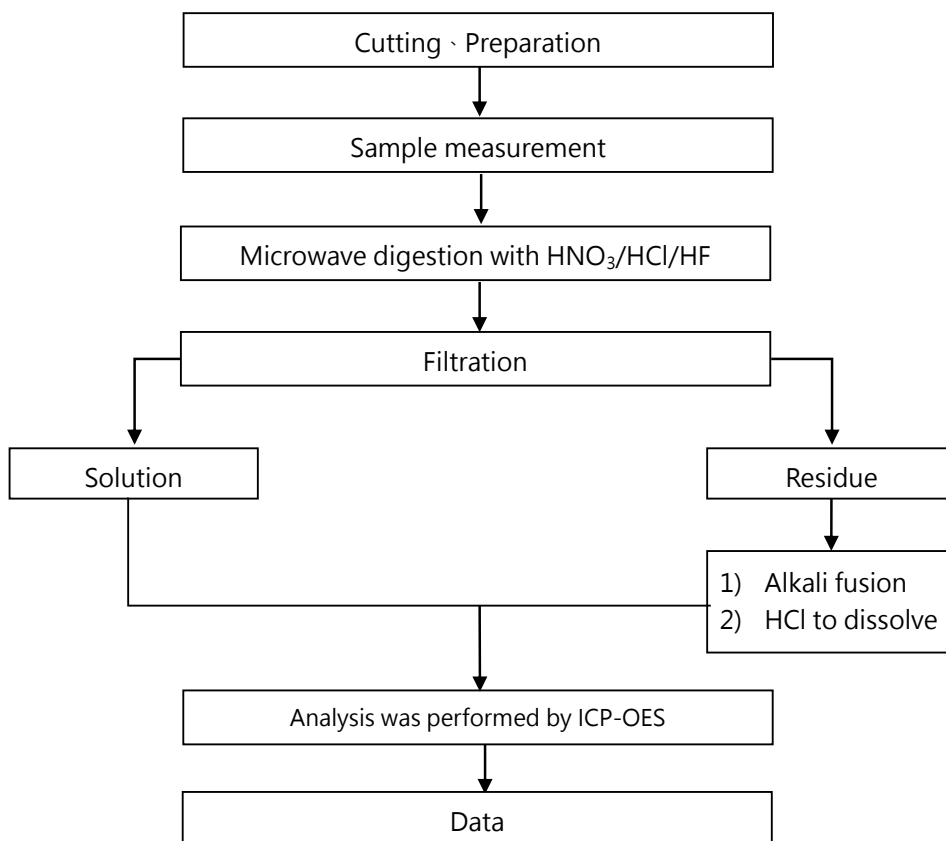
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MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart of elements (Heavy metal included)

These samples were dissolved totally by pre-conditioning method according to below flow chart.

【Reference method : US EPA 3051A 、US EPA 3052】



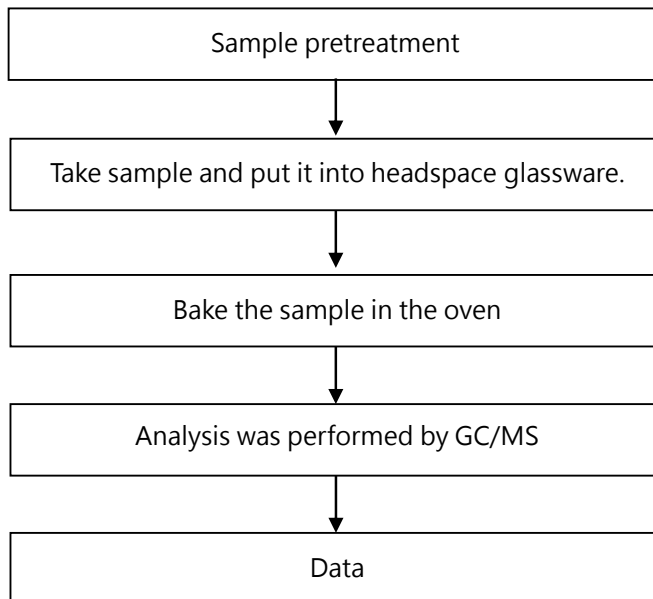
\* US EPA 3051A method does not add HF.

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MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION  
5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

## Analytical flow chart of volatile organic compounds (VOCs)

【Reference method : US EPA 5021A】



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# Test Report

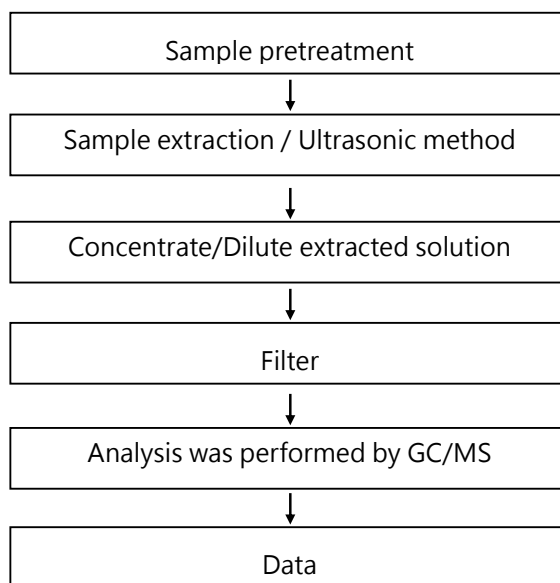
No.: ETR24B02840

Date: 22-Nov-2024

Page: 34 of 36

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## Analytical flow chart - HBCDD



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# Test Report

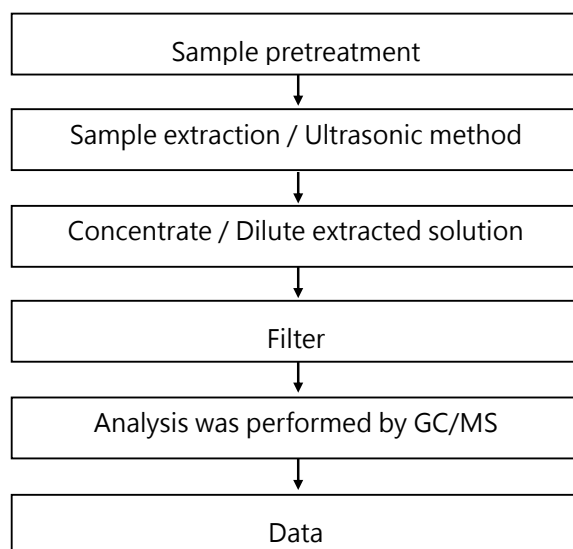
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Date: 22-Nov-2024

Page: 35 of 36

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## Analytical flow chart - Organic phosphorus compounds



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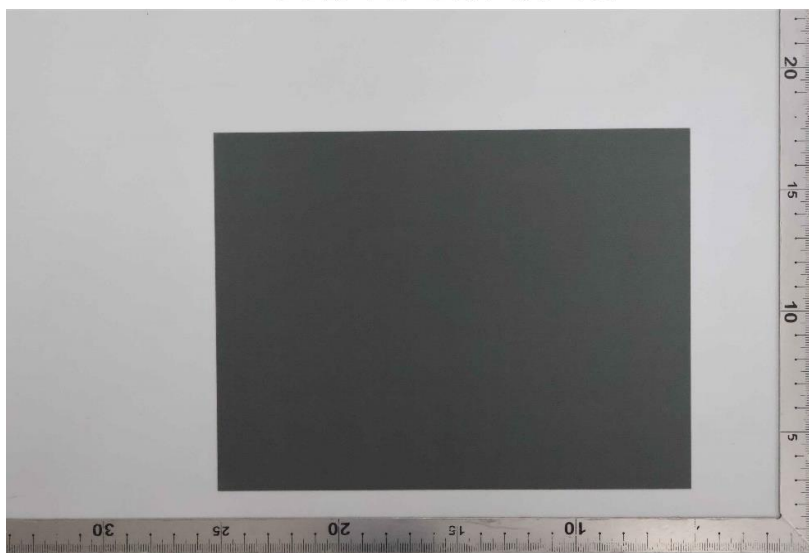
Date: 22-Nov-2024

Page: 36 of 36

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\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

## ETR24B02840



\*\* End of Report \*\*

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