

TEST REPORT

APPLICANT : Seoul Chemical Research Laboratory CO., LTD.
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Siheung-si, Gyeonggi-do, Korea

PAGE: 1 of 13

REPORT NO. RT21R-S0671-003-E1-R

DATE: Feb. 09, 2021

SAMPLE DESCRIPTION : The following submitted sample(s) said to be:-

NAME/TYPE OF PRODUCT : SCR-505G S54K WITH SH-3

SAMPLE ID NO. : RT21R-S0671-003

ITEM NO. : SCR-505G RED2 WITH SH-3, SCR-505G BLUE2 WITH SH-3,
SCR-505G CLEAR WITH SH-3

MANUFACTURER/VENDOR : Seoul Chemical Research Laboratory CO., LTD.

SAMPLE RECEIVED : Feb. 01, 2021

TESTING DATE : Feb. 01, 2021 ~ Feb. 05, 2021

TEST METHOD(S) : Please see the following page(s).

TEST RESULT(S) : Please see the following page(s).

* Note 1 : The test results presented in this report refer only to the object tested.

* Note 2 : This report shall not be reproduced except in full without the written approval of the testing laboratory.

* Note 3 : The item no. is assigned by client and indicated according to their requirement and guarantee letter.

Approved by,



Jade Jang / Lab. Technical Manager

Authorized by,



Bo Park / Lab. General Manager



Authenticity check

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DATE: Feb. 09, 2021

SAMPLE ID NO. : RT21R-S0671-003

SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

TEST ITEM	UNIT	TEST METHOD	MDL	RESULT
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5 Edition 1.0 : 2013, by acid digestion and determined by ICP-OES	0.5	N.D.
Lead (Pb)	mg/kg		5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4 : 2013/AMD1 : 2017, by acid digestion and determined by ICP-OES	2	N.D.
Hexavalent Chromium (Cr ⁶⁺)	mg/kg	With reference to IEC 62321-7-2 Edition 1.0 : 2017, by alkaline/toluene digestion and determined by UV-VIS Spectrophotometer	8	N.D.
Polybrominated Biphenyl (PBBs)				
Monobromobiphenyl	mg/kg	With reference to IEC 62321-6 Edition 1.0 : 2015, by solvent extraction and determined by GC/MS	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.
Polybrominated Diphenyl Ether (PBDEs)				
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6 Edition 1.0 : 2015, by solvent extraction and determined by GC/MS	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.

Tested by : Jooyeon Lee, Chano Kim, Hayan Park

Notes : mg/kg = ppm = parts per million
< = Less than
N.D. = Not detected (<MDL)
MDL = Method detection limit

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PAGE: 3 of 13
DATE: Feb. 09, 2021

SAMPLE ID NO. : RT21R-S0671-003

SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

TEST ITEM	UNIT	TEST METHOD	MDL	RESULT
Arsenic (As)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Beryllium (Be)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.
Antimony (Sb)	mg/kg	With reference to US EPA 3052, by acid digestion and determined by ICP-OES	2	N.D.

Tested by : Jooyeon Lee

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REPORT NO. RT21R-S0671-003-E1-R

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SAMPLE ID NO. : RT21R-S0671-003

SAMPLE DESCRIPTION : SCR-S05G S54K WITH SH-3

TEST ITEM	UNIT	TEST METHOD	MDL	RESULT
Hexabromocyclododecane (HBCDD)	mg/kg	With reference to IEC 62321-9(111/409/CD), by solvent extraction and determined by LC/MS and GC/MS	10	N.D.
Medium-chain chlorinated paraffin (MCCP)	mg/kg	With reference to US EPA 3540C, by solvent extraction and determined by LC/MS/MS and/or GC/ECD	100	N.D.
Tributyltin (TBT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.
Triphenyltin (TPT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.
Dibutyltin (DBT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.
Dioctyltin (DOT)	mg/kg	With reference to ISO 17353, by solvent extraction and determined by GC/MS	1	N.D.
Perfluorooctanoic acid (PFOA)	mg/kg	With reference to DIN CEN/TS 15968, by ultrasonic extraction and determined by LC/MS or LC/MS/MS	0.025	N.D.
Perfluorooctane sulfonate (PFOS)	mg/kg	With reference to DIN CEN/TS 15968, by ultrasonic extraction and determined by LC/MS or LC/MS/MS	0.01	N.D.

Tested by : Hayan Park

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SAMPLE ID NO. : RT21R-S0671-003

SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

TEST ITEM	CAS NO.	UNIT	TEST METHOD	MDL	RESULT
Dibutyl phthalate (DBP)	84-74-2	mg/kg	With reference to IEC 62321-8 Edition 1.0 : 2017, by solvent extraction and determined by GC/MS	50	N.D.
Di(2-ethylhexyl) phthalate (DEHP)	117-81-7	mg/kg		50	N.D.
Diisobutyl phthalate (DIBP)	84-69-5	mg/kg		50	N.D.
Benzyl butyl phthalate (BBP)	85-68-7	mg/kg		50	N.D.
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	mg/kg		100	N.D.
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	mg/kg		100	N.D.
Di-n-octyl phthalate (DNOP)	117-84-0	mg/kg		50	N.D.
Dimethyl phthalate (DMP)	131-11-3	mg/kg		50	N.D.
Diethyl phthalate (DEP)	84-66-2	mg/kg		50	N.D.
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	mg/kg		50	N.D.
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	mg/kg		50	N.D.
Di(2-methoxyethyl) phthalate (DMEP)	117-82-8	mg/kg		50	N.D.

Tested by : Hayan Park

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SAMPLE ID NO. : RT21R-S0671-003

SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

TEST ITEM	CAS NO.	UNIT	TEST METHOD	MDL	RESULT
Diisopentyl phthalate (DIPP)	605-50-5	mg/kg	With reference to IEC 62321-8 Edition 1.0 : 2017, by solvent extraction and determined by GC/MS	50	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	mg/kg		50	N.D.
Di-n-pentyl phthalate (DPP)	131-18-0	mg/kg		50	N.D.
N-pentyl-isopentylphthalate (NPIP)	776297-69-9	mg/kg		50	N.D.

Tested by : Hayan Park

Notes : mg/kg = ppm = parts per million
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* View of sample as received;-



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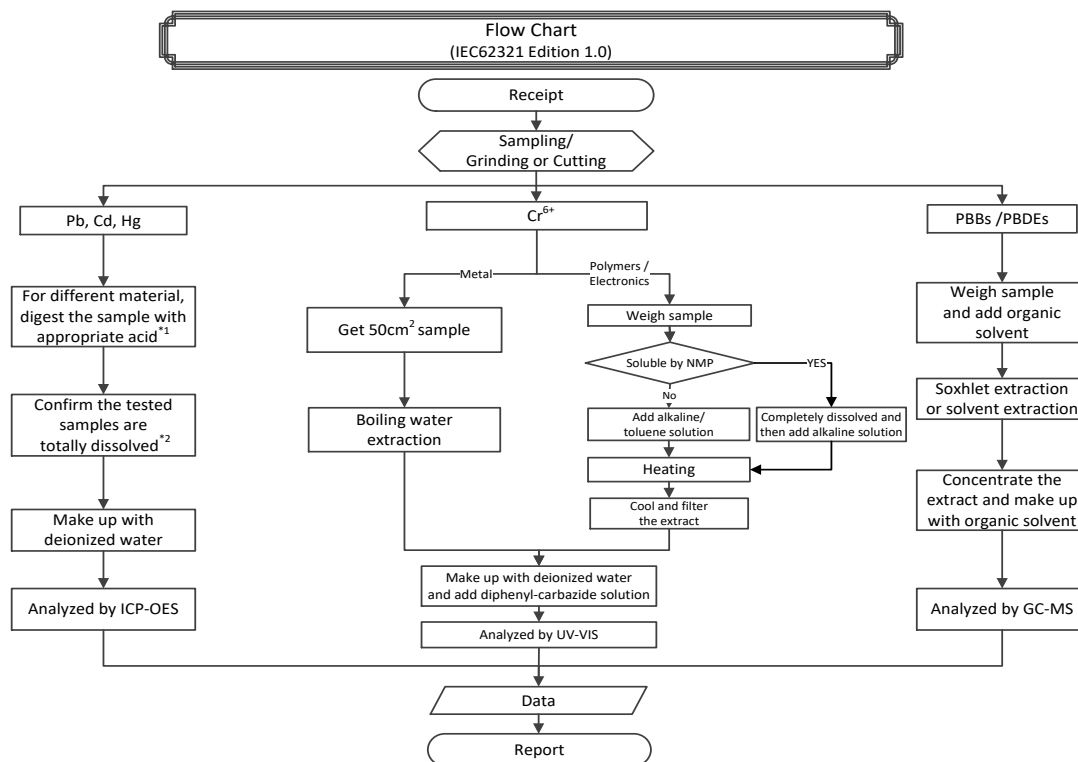
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SAMPLE ID NO. : RT21R-S0671-003

SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3



Remarks :

*1 : List of appropriate acid :

Material	Acid added for digestion
Polymers	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₃ BO ₃
Metals	HNO ₃ , HCl, HF
Electronics	HNO ₃ , HCl, H ₂ O ₂ , HBF ₄

*2 : The samples were dissolved totally by pre-conditioning method according to above flow chart.

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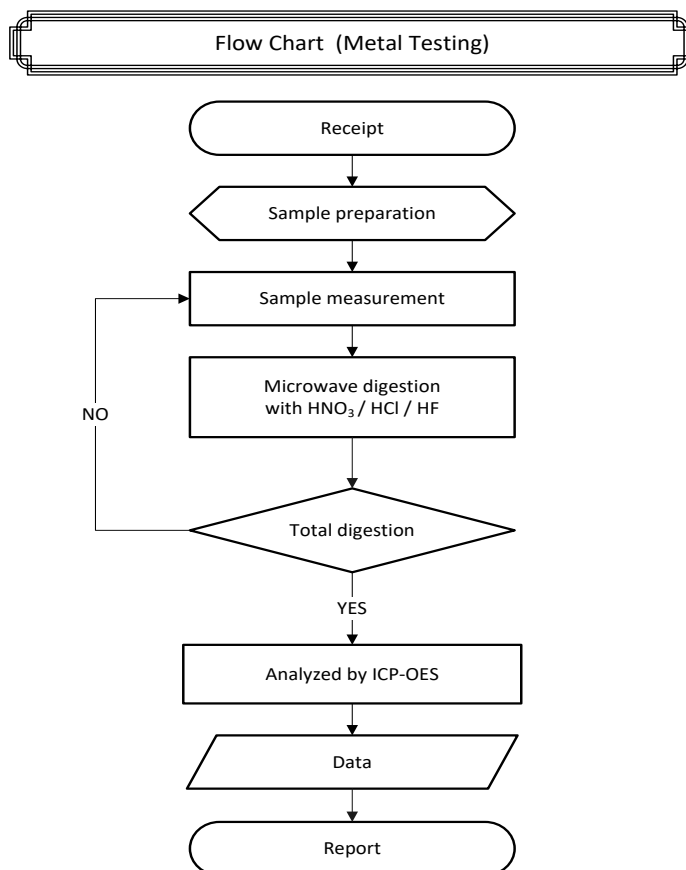
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SAMPLE ID NO. : RT21R-S0671-003

SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3



** Remarks : The samples were dissolved totally by pre-conditioning method according to above flow chart.

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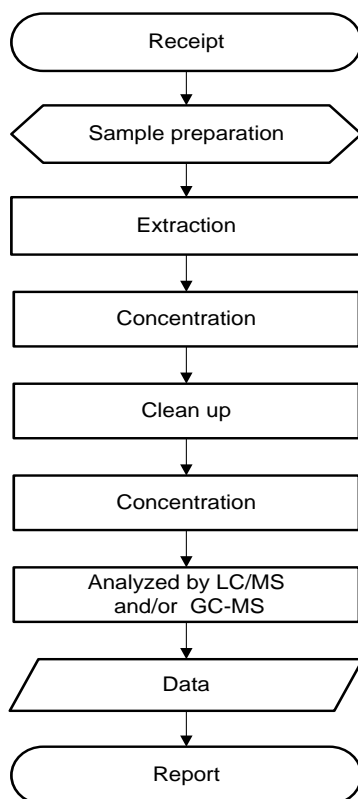
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SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

Flow Chart (HBCDD)



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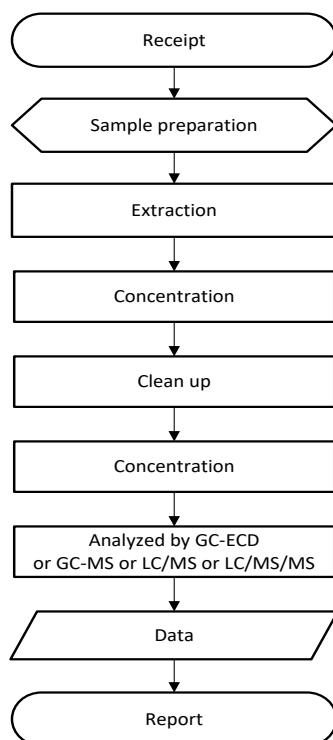
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Flow Chart (EPA 3540C)



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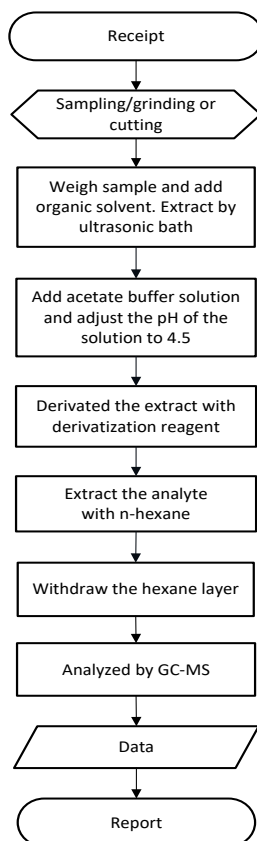
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SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

Flow Chart (Organotin Compounds)



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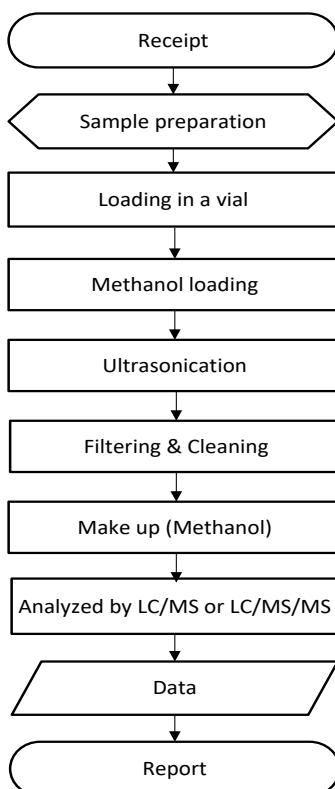
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SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

Flow Chart (PFOS, PFOA)



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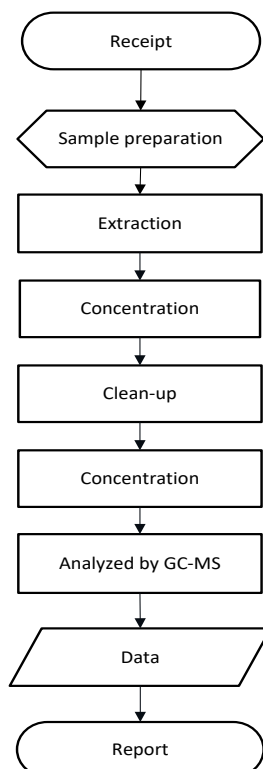
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SAMPLE DESCRIPTION : SCR-505G S54K WITH SH-3

Flow Chart (Phthalates)



***** End of Report *****

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