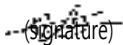



TEST REPORT

1. Certificate No.	: C23N200061-01-01-(00-00)
2. Client	: NAMBANG CNA Co., Ltd. 204, Chupalsandan1-gil, Paengseong-eup, Pyeongtaek-si, Gyeonggi-do, 17988, Republic of Korea
3. Date of Test	: Feb.22.2023 ~ Mar.06.2023
4. Usage	: Quality Control
5. Sample Description	: S-830
* The results shown in this report refer only to the sample(s) tested unless otherwise stated.	
6. Test Method Used	: IEC 62321 : 2008
7. Test Result	: Refer to the test results
8. Test Site	: Research Institute of Convergence Technology-Ansan

Affirmation	Tested by	Technical Manager
	Name : Son SeungHwan  E-mail : maru072@kitech.re.kr	Name : CHO YOUNG-DAL  E-mail : chemism@kitech.re.kr

Mar.06.2023

PRESIDENT of KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY



1. The results recorded in this test report is limited to the test results produced from the sample submitted and the test report does not guarantee the quality of overall samples.
2. This test report shall not be used for PR, advertisement, lawsuit and any other purpose outside the scope of its defined usage.
3. The authenticity of this test report can be checked QR code.
4. The results of the above report are not related to KS Q ISO/IEC 17025 and KOLAS recognition.



Test Report

Test methods

Test items	Test Methods	Procedures
Pb, Cd	IEC 62321-5	Digested, filtered and measured by ICP-OES
Hg	IEC 62321-4	Digested, filtered and measured by ICP-OES
Cr (VI)	IEC 62321-7-1	Extracted, colorized and measured by UV/VIS
Phthalates	IEC 62321-8	Extracted(or dissolved)and measured by GC/MS
Br, Cl	IEC 62321-3-2	Combusted and measured by IC using C-IC
PBBs, PBDEs	IEC 62321-6	Extracted(or dissolved)and measured by GC/MS

Test results

Heavy metals

Test Items	Unit	MDL	S-830	
			C23N200061R1	
Lead	Pb	mg/kg	3	ND
Cadmium	Cd	mg/kg	1	ND
Mercury	Hg	mg/kg	1	ND
Hexavalent Chromium	Cr(VI)	mg/kg	1	ND

MDL : Method Detection Limit

ND : Not Detected (< MDL)



Test Report

Test results

Phthalates

Test Items	Abbreviation	Unit	MDL	S-830
				C23N200061R1
Diisobutyl phthalate	DIBP	mg/kg	30	ND
Dibutyl phthalate	DBP	mg/kg	30	ND
Butyl benzyl phthalate	BBP	mg/kg	30	ND
Bis (2-ethylhexyl) phthalate	DEHP	mg/kg	30	ND
Di-n-octyl phthalate	DnOP	mg/kg	30	ND
Di-n-hexyl phthalate	DnHP	mg/kg	30	ND
Diisononyl phthalate	DINP	mg/kg	30	ND
Diisodecyl phthalate	DIDP	mg/kg	30	ND

Halogen free

Test Items	Abbreviation	Unit	MDL	S-830
				C23N200061R1
Bromine	Br	mg/kg	30	ND
Chlorine	Cl	mg/kg	30	73

MDL : Method Detection Limit

ND : Not Detected (< MDL)



Test Report

○ PBBs (Polybrominated Biphenyls)

Test Items	Abbreviation	Unit	MDL	S-830
				C23N200061R1
Monobromobiphenyl	BB-003	mg/kg	5	ND
Dibromobiphenyl	BB-015	mg/kg	5	ND
Tribromobiphenyl	BB-029	mg/kg	5	ND
Tetrabromobiphenyl	BB-049	mg/kg	5	ND
Pentabromobiphenyl	BB-103	mg/kg	5	ND
Hexabromobiphenyl	BB-153	mg/kg	5	ND
Heptabromobiphenyl	BB-189	mg/kg	10	ND
Octabromobiphenyl	BB-203	mg/kg	10	ND
Nonabromobiphenyl	BB-206	mg/kg	10	ND
Decabromobiphenyl	BB-209	mg/kg	10	ND

○ PBDEs (Polybrominated Diphenyl Ethers)

Test Items	Abbreviation	Unit	MDL	S-830
				C23N200061R1
Monobromodiphenylether	BDE-003	mg/kg	5	ND
Dibromodiphenylether	BDE-015	mg/kg	5	ND
Tribromodiphenylether	BDE-028	mg/kg	5	ND
Tetrabromodiphenylether	BDE-047	mg/kg	5	ND
Pentabromodiphenylether	BDE-099	mg/kg	5	ND
Hexabromodiphenylether	BDE-153	mg/kg	5	ND
Heptabromodiphenylether	BDE-183	mg/kg	5	ND
Octabromodiphenylether	BDE-203	mg/kg	5	ND
Nonabromodiphenylether	BDE-206	mg/kg	5	ND
Decabromodiphenylether	BDE-209	mg/kg	10	ND

MDL : Method Detection Limit

ND : Not Detected (< MDL)



Test Report

Sample image

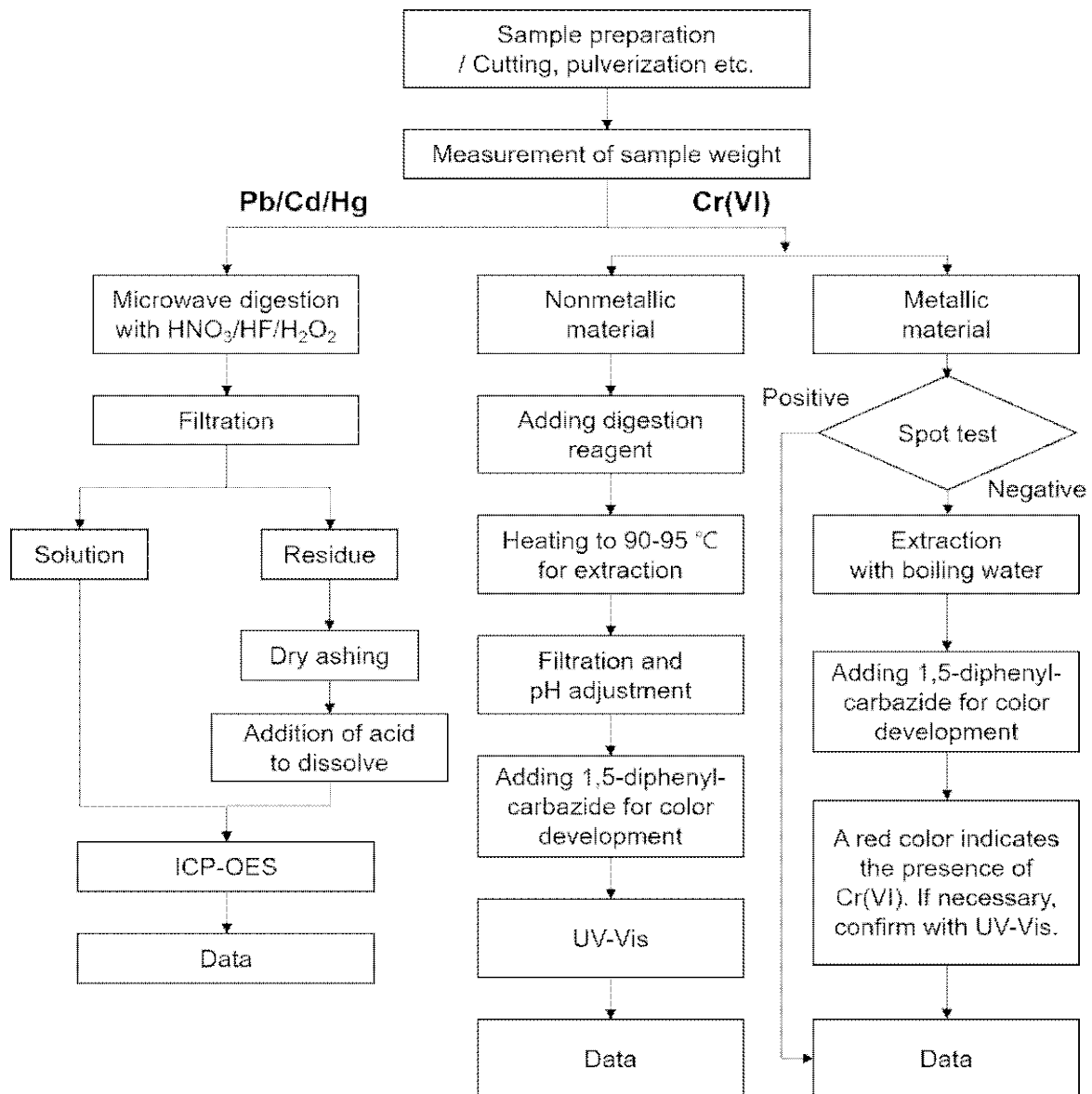


Sample name : S-830
Lab code : C23N200061R1



Test Report

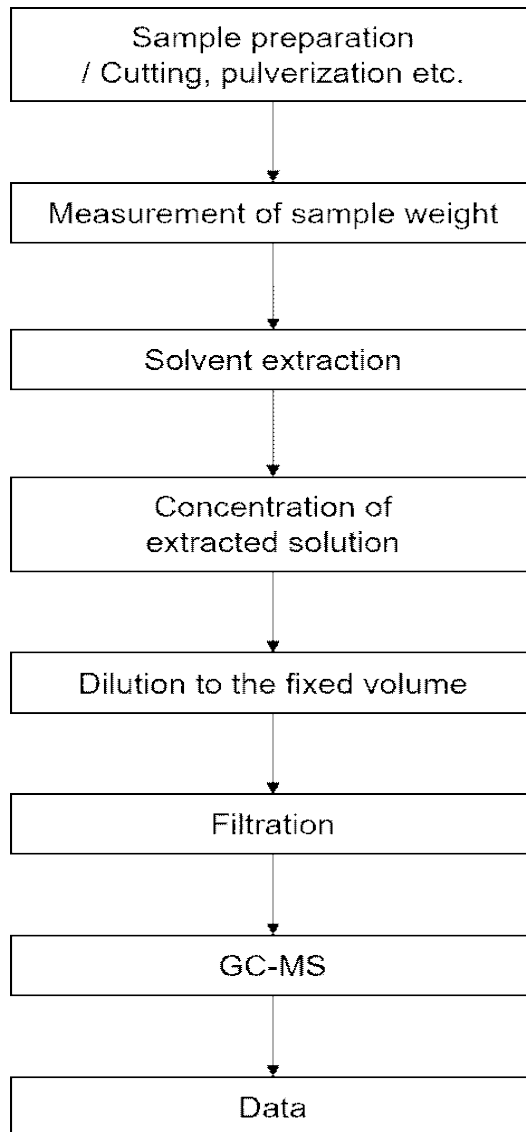
□ Flow chart for testing heavy metals (Pb / Cd / Hg / Cr(VI))



Test Report

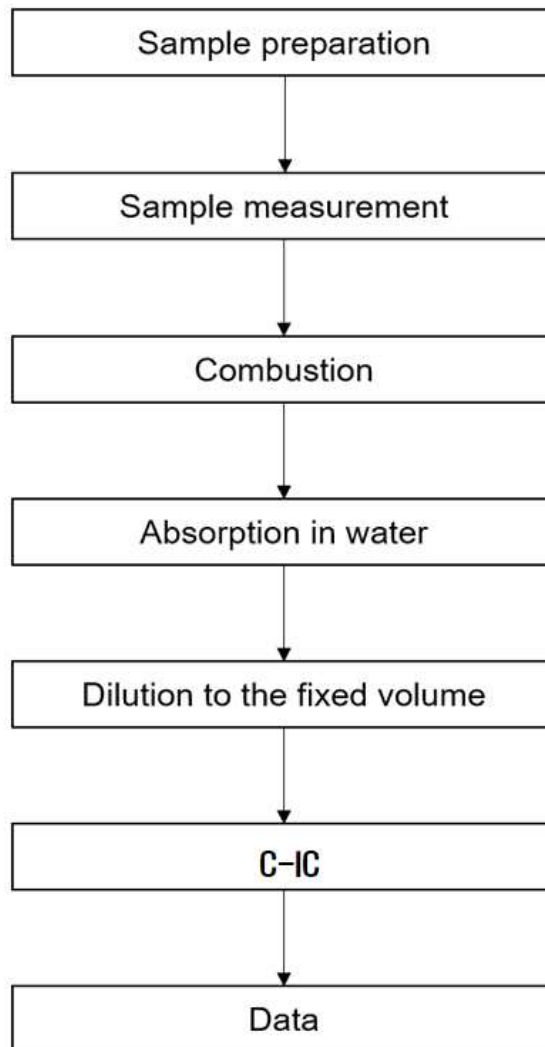
Flow chart for testing phthalates

(DIBP, DBP, BBP, DEHP, DnOP, DnHP, DINP, DIDP)



Test Report

□ Flow chart for testing halogens (Br, Cl)



Test Report

□ Flow chart for testing brominated flame retardants (PBBs / PBDEs)

