TEST REPORT

KOTITI No.	**8223-1401-100740**		
Applicant	DUKSAN Hi-Metal		
Address	66, Muryong 1-ro, Buk-gu, Ulsan, Korea		
Date In	Jan 26, 2023	**Date Out**	Feb 03, 2023

Issue No	0731701350
Sample Description	Sn3.0Ag0.5Cu
Sample Quantity	One (1) Sample(s)
Buyer	N/S
Item Number	N/S
Material	Metal
Testing Period	Jan 26, 2023 ~ Feb 03, 2023
Test Result	**For further details, please refer to the following page(s).**

*** N/S : Not Submitted, N.A. : Not Applicable, N.D. : Not Detected [< MDL(Method Detection Limit)]**

*** Negative : Not Detected, Positive : Detected**

Affirmation	Prepared by	Technical Manager
	Name : Seung yoon Choi	Name : Gun young Ryu

KOTITI Testing & Research Institute

Contact Information for technical questions and general inquiries.

·Primary Contact: Yun jae Lee **T** (822)3451-7116 **E** yjlee@kr.kotiti-global.com ·Back-up : Jung hyun Lee **T** (822)3451-7113 **E** jhlee@kr.kotiti-global.com

111, Sagimakgol-ro, Jungwon-gu, Seongnam-si, Kyeonggi-do, Korea **T** (822)6191-6182 **F** (822)3451-7179 **W** www.kotiti-global.com

Tested Sample List			
Sample No.	**Sample Description**	**Item No.**	**Material**
1	Sn3.0Ag0.5Cu	N/S	Metal

RoHS, Unit: mg/kg
(EU Directive 2011/65/EU, 2015/863/EU)

Test Conducted	Test Method	MDL	Test Results
			1
Lead (Pb)	IEC 62321-5:2013 (Acid digestion and determined by ICP-OES)	2	16.5
Cadmium(Cd)		2	N.D.
Mercury(Hg)	IEC 62321-4:2013+AMD1:2017 CSV (Acid digestion and determined by ICP-OES)	2	N.D.
*** Polybrominated Biphenyls(PBBs)**			
Bromobiphenyl	IEC 62321-6:2015 (Solvent extraction and determined by GC-MS)	5	N.D.
Dibromobiphenyl		5	N.D.
Tribromobiphenyl		5	N.D.
Tetrabromobiphenyl		5	N.D.
Pentabromobiphenyl		5	N.D.
Hexabromobiphenyl		5	N.D.
Heptabromobiphenyl		5	N.D.
Octabromobiphenyl		5	N.D.
Nonabromobiphenyl		5	N.D.
Decabromobiphenyl		5	N.D.
Sum of PBBs		-	N.D.
*** Polybrominated Diphenyl Ethers(PBDEs)**			
Bromodiphenyl ethers		5	N.D.
Dibromodiphenyl ethers		5	N.D.
Tribromodiphenyl ethers		5	N.D.
Tetrabromodiphenyl ethers		5	N.D.
Pentabromodiphenyl ethers		5	N.D.
Hexabromodiphenyl ethers		5	N.D.
Heptabromodiphenyl ethers		5	N.D.
Octabromodiphenyl ethers		5	N.D.
Nonabromodiphenyl ethers		5	N.D.
Decabromodiphenyl ether		5	N.D.
Sum of PBDEs		-	N.D.

* Tested by : Yeon ji Park, Seung yoon Choi

RoHS, Unit: μg/cm^2
(EU Directive 2011/65/EU, 2015/863/EU)

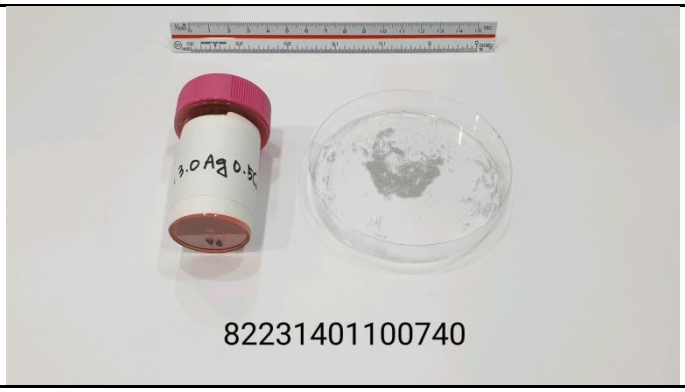
Test Conducted	Test Method	MDL	Test Results
			1
Hexavalent Chromium(Cr^{6+})	IEC 62321-7-1:2015 (Boiling water extraction and determined by UV-VIS)	-	Negative

※ Remark

1. < 0.10 μg/cm^2 : Negative
2. 0.1 μg/cm^2 ~ 0.13 μg/cm^2 : Inconclusive
3. > 0.13 μg/cm^2 : Positive

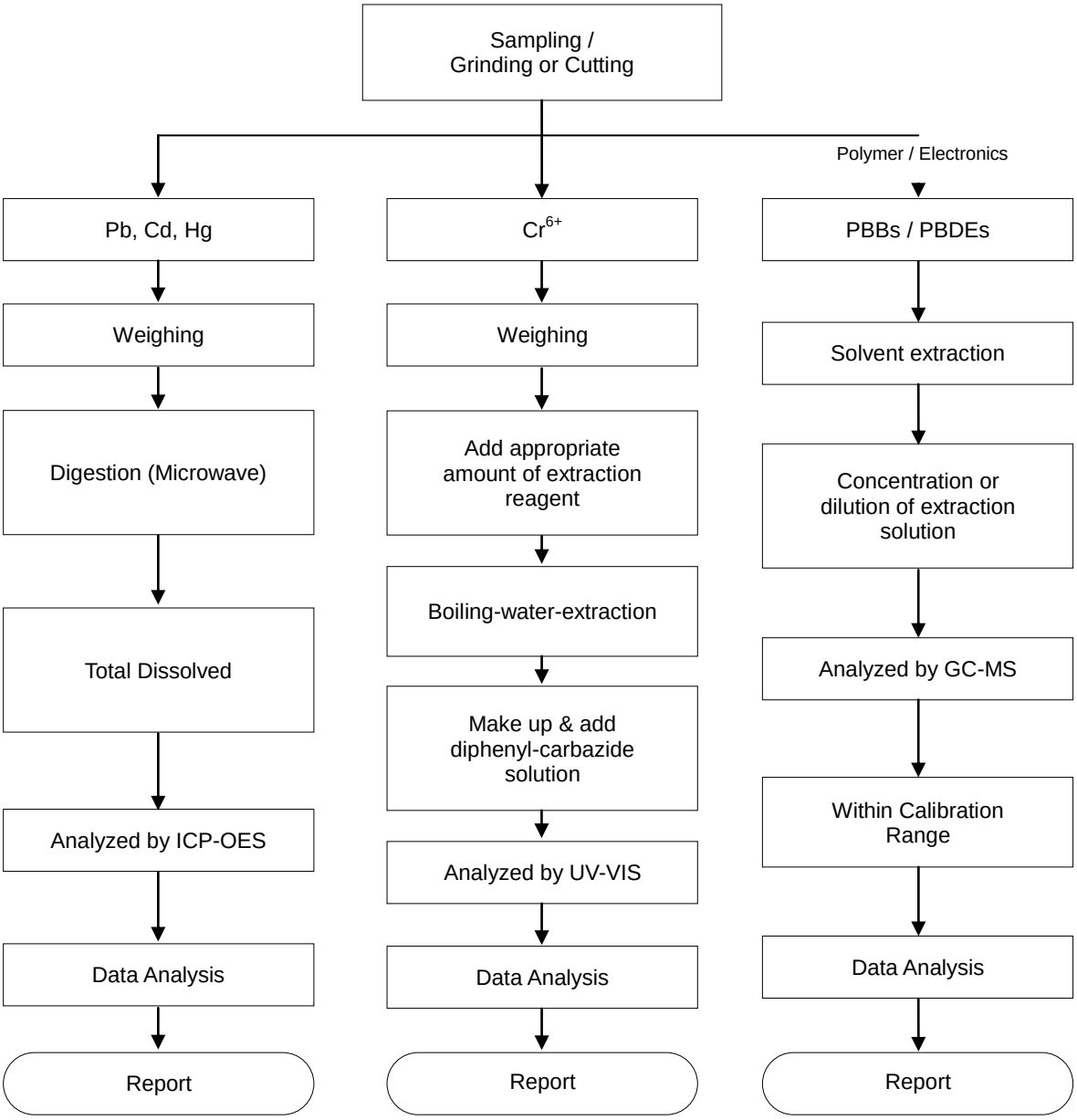
* Tested by : Ji eun Jeong

Photo of the submitted sample(s)

Sample No.1	

Flow Chart

RoHS



Material	Digestion Acid
Polymers	HNO_3, HCl, HF, H_2O_2, H_2SO_4, etc.
Metals	HNO_3, HCl
Electronics	HNO_3, HCl, HF, H_2O_2, H_2SO_4, etc.

* The sample is totally digested.