

## Test Report

KE/2019/11922

Date : Jan 25, 2019

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Formosa Plastics Corporation  
No. 100, Shui-Guan Rd., Jen-Wu Dist., Kaohsiung City, Taiwan (R.O.C.)

The following sample(s) was / were submitted and identified on behalf of the client as :

Material Name : Impact Modifier Additive  
Color : White  
Style / Item No. : M-31  
Material Composition : Impact Modifier Additive  
Sample Submitted By : Formosa Plastics Corporation  
Sample Receiving Date : Jan 21, 2019  
Testing Period : Jan 21, 2019 ~ Jan 25, 2019

Test Method & Results : Please refer to next page(s).

  
**Ray Chang Ph.D. / Manager - Tech**  
Signed for and on behalf of  
**SGS Taiwan Limited**  
**Chemical Laboratory-Kaohsiung**



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Test Results :

## EN71-3:2013+A3:2018 – Migration of certain elements

Category I: Dry, brittle, powder-like or pliable toy material

Method : With reference to EN 71-3:2013+A3:2018. Analysis of general elements was performed by ICP-MS. Chromium III & Chromium VI were analyzed by LC-ICP-MS. Organic Tin was analyzed by GC-MS.

Test Item		Result (mg/kg)	Reporting Limit (mg/kg)	Reference Limit** (mg/kg)
		1		
Soluble Aluminium	(Al)	n.d.	50	5,625
Soluble Antimony	(Sb)	n.d.	1	45
Soluble Arsenic	(As)	n.d.	0.5	3.8
Soluble Barium	(Ba)	n.d.	50	1,500
Soluble Boron	(B)	n.d.	50	1,200
Soluble Cadmium	(Cd)	n.d.	0.1	1.3
Soluble Chromium (III)	(Cr (III))	n.d.	5	37.5
Soluble Chromium (VI)	(Cr (VI))	n.d.	0.018	0.02
Soluble Cobalt	(Co)	n.d.	0.5	10.5
Soluble Copper	(Cu)	n.d.	50	622.5
Soluble Lead	(Pb)	n.d.	0.5	2.0
Soluble Manganese	(Mn)	n.d.	50	1,200
Soluble Mercury	(Hg)	n.d.	0.5	7.5
Soluble Nickel	(Ni)	n.d.	10	75
Soluble Selenium	(Se)	n.d.	5	37.5
Soluble Strontium	(Sr)	n.d.	50	4,500
Soluble Zinc	(Zn)	n.d.	50	3,750
Soluble Tin	(Sn)	n.d.	0.36	15,000
Soluble Organic Tin	--	n.d.	--	0.9

Test Item(s)		Soluble Organic Tin Result(s)	MDL (mg/kg)
		(mg/kg)	
		1	
Methyl tin	(MeT)	n.d.	0.14
Di-n-propyl tin	(DProT)	n.d.	0.14
Butyl tin	(BuT)	n.d.	0.14
Dibutyl tin	(DBT)	n.d.	0.14
Tributyl tin	(TBT)	n.d.	0.14
n-Octyl tin	(MOT)	n.d.	0.14
Tetrabutyl tin	(TeBT)	n.d.	0.14
Diphenyl tin	(DPhT)	n.d.	0.14
Di-n-octyl tin	(DOT)	n.d.	0.14
Triphenyl tin	(TPhT)	n.d.	0.14

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### Sample Description :

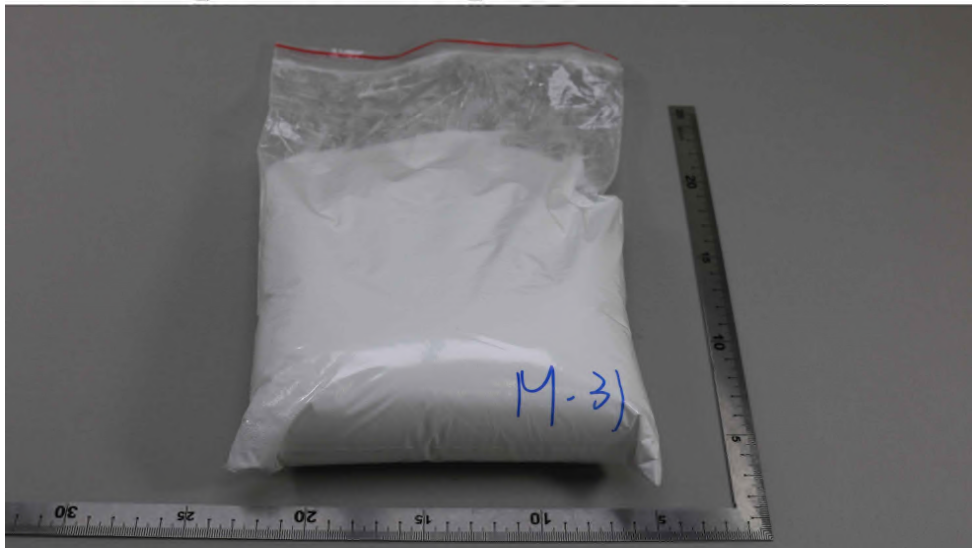
1. White Impact Modifier Additive

Note : - mg/kg = milligram per kilogram  
- n.d. = Not Detected  
- 1% = 10000 mg/kg = 10000 ppm

Remark : \*\* = Test requirement in the submitted sample is not applicable. The product scope that mentioned by European Directive 2009/48/EC and its amendment Council Directive (EU) 2017/738 is for toy material.

### Sample Photo

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SGS authenticate the photo on original report only

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

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