

Test Report

11 May, 2020

Type of Product : Artline PERMANENT MARKERS EK-041T
<Object:Ink> (Black)(Blue)(Red)(Green)(Brown)(Orange)(Purple)(Yellow)

Test Item	Colour	Result (unit mg/kg)	Minimum limit of determination	Testing Date
a) Lead and lead compounds	All colours	Not detected	2	7 April, 2020 - 13 April, 2020
b) Cadmium and cadmium compounds	All colours	Not detected	2	7 April, 2020 - 13 April, 2020
c) Mercury and mercury compounds	All colours	Not detected	2	7 April, 2020 - 13 April, 2020
d) Hexavalent chromium compounds	7 colours (except Black)	Not detected	8	7 April, 2020 - 13 April, 2020
	Black	Not detected	8	17 April, 2020 - 1 May, 2020
e) PBBs/PBDEs	All colours	Not detected	5	7 April, 2020 - 13 April, 2020
f) DBP	All colours	Not detected	50	7 April, 2020 - 13 April, 2020
g) BBP	All colours	Not detected	50	7 April, 2020 - 13 April, 2020
h) DEHP	All colours	Not detected	50	7 April, 2020 - 13 April, 2020
i) DIBP	All colours	Not detected	50	7 April, 2020 - 13 April, 2020

(Unit; mg/kg=ppm)

Analysis company : Pb, Cd, Hg, PBBs/PBDEs, DBP, BBP, DEHP, DIDP - SGS-CSTC [Approved Signatory : Dora Hu]
Cr (VI) <7colours (except Black)> - SGS-CSTC [Approved Signatory : Dora Hu]
Cr (VI) < Black> - SGS Japan [Lab Manager : Fumitaka Maruyama]

		Pretreatment:	Analysis method:
a),b)	<All colours>	IEC 62321-5 : 2013	ICP-OES
c)	<All colours>	IEC 62321-4 : 2013+AMD1:2017	ICP-OES
d)	<7colours (except Black)>	IEC 62321-7-2:2017	UV-Vis
	< Black>	Water extraction (The Analysis of Cr(VI) has been taken removal process of element interference.)	UV/VIS
e)	<All colours>	IEC 62321-6:2015	GC-MS
f),g),h),i)	<All colours>	IEC 62321-8:2017	GC-MS

note) ・A sample completely dissolved in preprocessing operation and performed quantitative analysis. (Lead,Cadmium,Mercury)
“Not detected” means under the minimum limit of determination.
・Black ink contain chromium compounds,dyestuff (Trivalent chromium, not Hexavalent chromium).
Please note that test result by X-ray fluorescence spectrometer shows total chromium value.



Shachihata Inc


Nobuhiro Inukai Quality Assurance Gr.