

Laboratory Test Report

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Prepared for: Hemway

Unit N1, Gildersome Spur Industrial Estate

Leeds LS27 7JZ

Sample described as: Chalk Based Furniture Paint Colours

No. of samples: 1 Reference number(s): HEMCHF

Date received: 15/09/2021 **Date(s) tested:** 24-27/09/2021

Packaging: None

Description of sample: Chalk Based Furniture Paint Colours

I certify that the above mentioned sample has been tested in accordance with the standard / regulation(s) specified below and that it complies or otherwise as follows:

BS EN 71-3:2019 / EN 71-3:2019 Migration of Certain Elements**	Complies
BS EN 71 – 3: 2019 + A1: 2021 / EN 71 – 3: 2019 + A1: 2021 Migration of Certain Elements**	Complies
Migration of Certain Elements Test in accordance with ASTM F963-17 Standard Consumer Safety Specification for Toy Safety**	Complies
Canada Consumer Product Safety Act S.C.2010, c. 21 Schedule 2 & Toys Regulations SOR/2011-17 and Amendments: Section 23: Specific substances in surface coatings**	Complies

Joanne Maggs

Senior Analytical Services Manager

Date: 30/09/2021

Amended: 01/10/2021 to change the address

**Subcontracted to an ILAC accredited laboratory within Eurofins / The reported results relate exclusively to the tested sample

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Material list

Testing material No.	Component	Material	Colour
1	Chalk based furniture paint colours	Coating	Transparent

BS EN 71 - 3: 2019 - Migration of Certain Elements

Test method : With reference to BS EN 71 – 3: 2019: Migration of certain elements.

General Elements analysis was performed by ICP-MS. Soluble Chromium(VI) analysis was performed by IC-UV-Vis. Soluble Organic Tin analysis was performed by GC-MS.

Element	Limit(mg/kg)	MDL	Material Test Result (mg/kg)
Element	Category III	(mg/kg)	1
Soluble Aluminium (Al)	28130	10	N.D.
Soluble Antimony (Sb)	560	10	N.D.
Soluble Arsenic (As)	47	10	N.D.
Soluble Barium (Ba)	18750	10	N.D.
Soluble Boron (B)	15000	10	N.D.
Soluble Cadmium (Cd)	17	8	N.D.
Soluble Chromium III (Cr III)	460	5	N.D.∆
Soluble Chromium VI (Cr VI)	0.053	0.025	N.D.∆
Soluble Cobalt (Co)	130	10	N.D.
Soluble Copper(Cu)	7700	10	N.D.
Soluble Lead (Pb)	23	10	N.D.
Soluble Manganese (Mn)	15000	10	N.D.
Soluble Mercury (Hg)	94	10	N.D.
Soluble Nickel (Ni)	930	10	N.D.
Soluble Selenium (Se)	460	10	N.D.
Soluble Strontium (Sr)	56000	10	N.D.
Soluble Tin (Sn)	180000	4.9	N.D.
Soluble Organic Tin	12	0.1	^
Soluble Zinc (Zn)	46000	10	N.D.

Element	Limit(mg/kg)		Material Test Result (mg/kg)		
Element	Category III	(mg/kg)	1		
Soluble Total Chromium	-	0.05	0.17		

- N.D. = Not Detected
- MDL = Method Detection Limit
- Unless specified, determination of Chromium (III) and Chromium (VI) was based on elemental analysis.
- The reported soluble organic tin value was calculated by summation of the migration values of Methyltin, Butyltin, Dibutyltin, Tributyltin, Tetrabutyltin, Monooctyltin, Dioctyltin, Dipropyltin, Diphenyltin, Triphenyltin and Dimethyltin.
- $\mbox{-}^{\!\scriptscriptstyle \Delta}\!$ Chromium (III) and Chromium (VI) confirmation test were performed on the tested component.



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-^ Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in BS EN 71 – 3: 2019.

- Proposal of stricter migration limit for Aluminium (Al) according to the Commission Directive (EU) 2019/1922, which is enter into force from 20 May 2021.

BS EN 71 - 3: 2019 + A1: 2021 - Migration of Certain Elements

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EN 71 - 3: 2019 - Migration of Certain Elements

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ASTM F963-17 4.3.5.1(2), Migration of Certain Elements in Paint and Similar Surfacecoating Materials

Test method : As per ASTM F963-17, soluble toxic element contents are determined by

Inductively Coupled Plasma Mass Spectrometry (ICP-MS).

Detection limit : 2.5 mg/kg for each of the 8 soluble toxic elements

		Testing element							
		As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Test No.	Material No.	lo. Limit (mg/kg)							
		25	1000	75	60	60	90	60	500
		Test result (mg/kg)							
1	1	N.D.	3.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Note: -1 mg/kg = 1 ppm = 0.0001%

- N.D. = Not Detected

Toys Regulations SOR/2011-17 and Amendments

Section 23: Specific substances in surface coatings - Total Lead Content

Test method : Canada Product Safety Laboratory Book 5: Laboratory Policies and

Procedures, Part B: Test Methods Section, Method C-02.

Test Item	Test result (mg/kg)	Detection Limit	Limit	
rest item	1	(mg/kg)	(mg/kg)	
Total Lead (Pb)	N.D.	10	90	

Note: -1 mg/kg = 1 ppm = 0.0001%

- N.D. = Not Detected

Section 23: Specific substances in surface coatings - Total Mercury Content

Test method : Canada Product Safety Laboratory Book 5: Laboratory Policies and

Procedures, Part B: Test Methods Section, Method C-07.

Test Item	Test result (mg/kg)	Detection Limit	Limit (mg/kg)
	1	(mg/kg)	
Total Mecury (Hg)	N.D.	10	N.D.

Note: -1 mg/kg = 1 ppm = 0.0001%

- N.D. = Not Detected



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Section 23: Specific substances in surface coatings - Leachable Heavy Metal contents

Test method : Canada Product Safety Laboratory Book 5: Laboratory Policies and Procedures,

Part B: Test Methods Section, Method C-03.

Leachable heavy metal contents are determined by Inductively Coupled Plasma

Optical Emission Spectrometry (ICP-OES).

Detection limit : 10 mg/kg for each element

Test No.	Material No.	Testing element				
		As	Ba	Cd	Sb	Se
		Limit [mg/kg]				
		1000	1000	1000	1000	1000
1	1	N.D.	N.D.	N.D.	N.D.	N.D.

Note: -1 mg/kg = 1 ppm = 0.0001%

- N.D. = Not Detected

Other Information / Remark:

N/A



END OF THE REPORT