

## TEST REPORT: 7191200374-CHM19/02-CSY

Date: 09 JAN 2019

Tel: +65 68851312 Fax: +65 67784301

Client's Ref:

Email: zhou.xiao@tuv-sud-psb.sg

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### SUBJECT

Evaluation of "Silk Breathe Easy Luxury Emulsion" comply with Singapore Green Labelling Scheme (SGLS), Category 032.

### CLIENT

Berger Paints India Ltd.  
14 & 15 Swarnamoyee Road, Shibpur  
Howrah, West Bengal, 711103  
India

Attn : Mr Indrajit Banerjee

### DESCRIPTION OF SAMPLE

One bottle of sample labelled as follows was received on 06 Dec 2018.

Product name	Date	Quantity
Silk Breathe Easy Luxury Emulsion	28/8/2018	1 x 1L

### DATE OF TEST

08 Dec 2018 – 08 Jan 2019



TÜV SÜD PSB

Laboratory:  
TÜV SÜD PSB Pte. Ltd.  
No.1 Science Park Drive  
Singapore 118221

Phone : +65-6885 1333  
Fax : +65-6776 8670  
E-mail: enquiries@tuv-sud-psb.sg  
www.tuv-sud-psb.sg  
Co. Reg : 199002667R

Regional Head Office:  
TÜV SÜD Asia Pacific Pte. Ltd.  
1 Science Park Drive, #02-01  
Singapore 118221  
TUV®

### METHOD OF TEST

The sample was tested in the “as-received” condition.

- |    |  |  |
|----|--|--|
| 1) | Formaldehyde   | The sample was analysed by UV-Vis Spectrophotometer using Acetylacetone as reagent.  |
| 2) | Mercury, Lead, Cadmium and Chromium                          | The sample was digested in inorganic acid, followed by analysis using Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES).                 |
| 3) | Flash point @ 61°C   | By Seta Flash.   |
| 4) | Volatile organic compound content                            | By BS EN ISO 11890-2:2006, Paints and varnishes – <i>Determination of volatile organic compound (VOC) content – Part 2 : Gas-chromatographic method.</i> |
| 5) | Halogenated solvents<br>Aromatic solvents<br>Epichlorohydrin | By Gas Chromatograph –Mass Spectrometry (GC-MS).   |
| 6) | N-methyl pyrrolidone   | By Gas Chromatography with Flame Ionization Detector (GC-FID)  |
| 7) | Alkyl Phenol Ethoxylates                                     | BS3762 : 1990 Analysis of formulated Detergent   |

### SUMMARY OF TEST RESULTS

The summary of test results for “Silk Breathe Easy Luxury Emulsion”.

Item No.	Test	Result	Method Detection Limit	GLS032 Criteria	Inferred Remark
1	Formaldehyde Content	Not Detected	0.01%	Not Detected	Pass
2	Heavy Metals: Mercury, Lead, Cadmium, Chromium	Not Detected	0.01%	Not Detected	Pass
3	Flash point @ 61°C	No Flash	-	> 61°C	Pass
4	VOC Content	5.1 g/L	2 g/L	< 25 g/L*	Pass
5	Halogenated solvents	Not Detected	0.01%	Not Detected	Pass
6	Epichlorohydrin	Not Detected	0.01%	Not Detected	Pass
7	Aromatic solvents	Not Detected	0.01%	Not Detected	Pass
8	N-methyl pyrrolidone	Not Detected	0.01%	Not Detected	Pass
9	Alkyl Phenol Ethoxylates	Not Detected	0.01%	Not Detected	Pass

\* For Water Based Coatings / Paints (Interior: Matt ≤ 25 g/L; Low Sheen ≤ 30 g/L; Semi Gloss ≤ 40 g/L; Gloss ≤ 70 g/L. Exterior: Matt and Low Sheen ≤ 50 g/L; Semi Gloss ≤ 65 g/L; Gloss ≤ 70 g/L )

For Water Based Varnishes ≤ 50 g/L

For Solvent Based Coatings / Paints (Solvent Paints and stains ≤ 200 g/L; Solvent Varnishes ≤ 250 g/L)

**RESULTS** (Cont'd)

**Table 1 : The Formaldehyde results for "Silk Breathe Easy Luxury Emulsion".**

Test	Result	Method Detection Limit
Formaldehyde Content	Not Detected	0.01%

**Table 2 : The Elemental results for "Silk Breathe Easy Luxury Emulsion".**

Test	Result	Method Detection Limit
Mercury	Not Detected	0.01%
Lead	Not Detected	0.01%
Cadmium	Not Detected	0.01%
Chromium	Not Detected	0.01%

**Table 3 : The Flash Point results for "Silk Breathe Easy Luxury Emulsion".**

Test	Result
Flash point @ 61°C	No Flash

**Table 4 : The Volatile Organic Compound (VOC) content for "Silk Breathe Easy Luxury Emulsion".**

Test	Result	Method Detection Limit
VOC Content <sup>a</sup>	5.1 g/L <sup>b</sup>	2 g/L

a) Volatile organic compound (VOC) means any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101,3 kPa.

b) The result was calculated based on the specific gravity = 1.30 provided by the client

**Table 5 : The analytical results for "Silk Breathe Easy Luxury Emulsion".**

Test	Result	Method Detection Limit
Halogenated solvents	Not Detected	0.01%
Epichlorohydrin	Not Detected	0.01%
Aromatic solvents	Not Detected	0.01%
N-methyl pyrrolidone	Not Detected	0.01%
Alkyl Phenol Ethoxylates	Not Detected	0.01%



**MS CHOO SEOW YAH**  
TECHNICAL EXECUTIVE



**DR XIAO ZHOU**  
PRODUCT MANAGER  
MICROCONTAMINATION DIAGNOSIS  
CHEMICAL & MATERIALS

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PSB Singapore

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July 2011

