

No. HKHC1501000353HC

Date: Mar 10, 2015

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KPI CO., LTD

KANGNAM B/D 7F, 1355-21, SEOCHO-DONG, SEOCHO-GU, SEOUL, KOREA

The following sample was submitted and identified by the client as PAINT MARKER INK – XYLENE FREE (1 formulation and 9 additional colors).

Net Weight : 9 g per color

SGS Report No. : HKHC1501000353HC SGS Case No. : HKHC150100000170

Sample Receiving Information : Formulation with chemical name, CAS no. and percentage

Region of Origin : Korea
Region of Destination : USA

Sample Receiving Date : Jan 16 – Mar 02, 2015 Test Period : Jan 16 – Mar 10, 2015

## **Test Requested**

For compliance with Labeling of Hazardous Art Materials Act (LHAMA) and the criteria outlined in ASTM D-4236.

## **Test Results**

Please refer to the following pages.

#### Conclusion

The submitted samples comply with *Labeling of Hazardous Art Materials Act (LHAMA)* provided that the following labeling practice (*see page 2*) has been indicated on the product label.

Signed for and on behalf of SGS Hong Kong Ltd.

Mei-Yin CHIU, Sondy

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BSc, MSc, MSB, CBiol, ERT, DABT Diplomate American Board of Toxicology EUROTOX Registered Toxicologist

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#### **TEST RESULTS:**

The formulations of PAINT MARKER INK – XYLENE FREE – Xylene-free marker pen ink in black, blue, gold, green, orange, red, silver, violet, white and yellow are reviewed according to the US Consumer Product Safety Commission's guideline at 16 CFR 1500.135 and the criteria outlined in ASTM D-4236.

In this review the available data, including the relevant data from the National Toxicology Program (NTP), International Agencies for Research on Cancer (IARC) and other sources in the National Library of Medicine Data Bank were considered to assess the need for chronic health hazard warning. The carcinogenicity, reproductive hazard, neurotoxicity, bioavailability and potential exposures were also considered and in the absence of specific data, a reasonable judgment was made to assure a realistic assessment of the hazard on the ultimate art material package.

The review is based only on the submitted formula (*Appendix-1*). Material Safety Data Sheet (MSDS) of the ingredients have been submitted and evaluated. The ingredients used shall fulfill corresponding purity requirements. The polymer (if present) is assumed to be well-cured and the ingredients in this product are assumed to contain no contaminants or residues at level that would cause chronic toxicity among users when used for its intended purpose. If there is any alteration to this formula or if heavy metal contamination such as lead is detected in this product, it will void this certification.

The product is intended for adults for art creation. The marker is a porous-tip ink-marking device so that the marker ink is expected to be released at a sustained and slow rate through the porous writing nib. One of the colorant mixtures, AL-Paste (0200M) which is used in the silver marker ink, consists of Aluminum flake and mineral oil (Naphtha (petroleum), hydrodesulfurized heavy & Solvent naphtha (petroleum), heavy arom.). MSDS of AL-Paste (0200M) does not indicate that the colorant mixture is carcinogenic, suggesting that the mineral oil is of acceptable purity and contains less than 0.1% w/w benzene. If it is not the case, it will void this assessment. None of the ingredients at a level found in this product is expected to pose any significant chronic adverse health effects in consumers with customary use. Taking into account this information it is considered that, in the present state of knowledge, the submitted formulations put on the market are unlikely to cause chronic toxicity among users, when used as intended or reasonable foreseeable misuse. However, it is required that WARNING statement should be indicated on the labeling.

### **Labeling Practice:**

The following parameter should be indicated on the product label conspicuously and legibly.

#### **CONFORMS TO ASTM D-4236**

WARNING: Flammable. Keep away from heat, sparks and naked flames. Use with adequate ventilation. Avoid inhalation. Rinse eyes immediately should the product come to contact with them. Keep out of reach of children.

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The validity of this review depends on the validity of disclosure by both the manufacturer of the components and that of the finished products. In addition, best professional capabilities are used in performing this review and if the client wishes to use this opinion with any alterations to the submitted formula, SGS (HK) Ltd. or any of its employees will not be held reliable for any injury or damage resulting from this product. This review will need to be updated **every five years** or upon reformulation or upon change of new significant safety information. In addition, the submitted sample should also be in compliance with US CPSC additional guidelines in all respects.

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## **DETAILS OF THE PRODUCT FORMULATION**

APPENDIX-1: Formulation/Ingredients

Ingredient Name	CAS RN	% By Weight (Max)
Alcohol	64-17-5	31
1-Methoxy-2-hydroxypropane	107-98-2	29
Butylated hydroxytoluene	128-37-0	26
Formaldehyde, polymer with 1-phenylethanone, hydrogenated	68441-83-8	22
2-Propanol, 1-methoxy-, 2-acetate	108-65-6	7
Isopropyl alcohol	67-63-0	5
Mineral oil (Naphtha (petroleum), hydrodesulfurized heavy &	64742-82-1 &	4
Solvent naphtha (petroleum), heavy arom.)	64742-94-5	
7-diethylamino-4-methylcoumarin	91-44-1	0.2
Titanium dioxide (CI 77891)	13463-67-7	24
Copper powder (CI 77400)	7440-50-8	15
Aluminum flake (CI 77000)	7429-90-5	10
Black 2 (CI 77266)	1333-86-4	6
Pigment Blue 15 (CI 74160)	147-14-8	6
Pigment Green 7 (CI 74260)	1328-53-6	6
Pigment Yellow 138 (CI 56300)	30125-47-4	6
Pigment Red 254 (CI 56110)	84632-65-5	5
Zinc	7440-66-6	4
Pigment red 122 (CI 73915)	980-26-7	3

\*\*\*\*\*\* End of Appendix \*\*\*\*\*\*\*

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