

**Test Report** 

No. 2045481/EC

Date: Jan 19 2006

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MULTICOMP PRODUCTS MANUFACTURED BY SWANN INDUSTRIES PTE LTD Blk 4008, Ang Mo Kio Avenue 10, #03-06 /10, Techplace 1. Singapore 569625

Report on the submitted sample said to be Non-Illuminated DPST & DPDT type Rocker switches.

SGS Job No. Part Description 1931705 33A Series

Buyer

PREMIER FARNELL ASIA PTE. LTD.

Supplier

SWANN INDUSTRIES PTE LTD

Sample Receiving Date

DEC 02 2005

Testing Period

DEC 03 - 08 2005

Test Requested: With reference to RoHS Directive 2002/95/EC

- To determine the Cadmium Content in the submitted sample.
- To determine the Lead Content in the submitted sample. 2)
- 3) To determine the Mercury Content in the submitted sample.
- To determine the Cadmium, Lead and Mercury content in the submitted metal sample. 4)
- To determine the Hexavalent Chromium Content on the submitted sample. 5)
- Determination of PBBs (polybrominated biphenyls), PBDEs (Polybrominated
  - diphenylethers) of the submitted sample.

Test Method

- : 1) With reference to BS EN 1122:2001, Method B, analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES).
  - With reference to EPA Method 3050B/ 3051/ 3052. 2) Analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES).
  - With reference to EPA Method 3051/3052. Analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES).
  - With reference to in-house method. The sample was digested by acid. Analysis 4) was performed by Atomic Absorption or Inductively Coupled Argon Plasma -Atomic Emission Spectrometry (ICP-AES).
  - With reference to EPA Method 3060A & 7196A. 5) The sample was alkaline digested by using EPA Method 3060A, and then analyzed by using Colorimetric method 7196A (by UV-Vis Spectrophotometer).
  - With reference to EPA Method 3540C/ 3550C. Analysis was performed by 6) GC/MS or LC/ MS.

Test Results

: 1-6) Please refer to next page.

Conclusion

: When tested as specified, the submitted sample complies with the requirements of Commission Decision of 18 Aug 2005 amending Directive 2002/95/EC notified under document 2005/618/EC.

Signed for and on behalf of SGS Horig Kong Ltd

Wan Chi Wai, Leo Technical Manager

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**Test Results** 

1-5)							
Test Item	1 :	2	<u>3</u>	<u>4</u>	<u>5</u>	Detection Limit	<u>Limit</u>
Cadmium (Cd)	ND	$\overline{ND}$	ND	ND	ND	2 ppm	100 ppm
Lead (Pb)	ND	ND	ND	ND	19ppm	2 ppm	1000 ppm
Mercury (Hg)	ND	ND	ND	ND	ND	2 ppm	1000 ppm
Hexavalent Chromium (Cr 6+)	ND	ND	ND	ND	ND	2 ppm	1000 ppm

(Results shown are of the total weight of samples)

Note: ppm = mg/kg

ND = Not Detected

Not detected is reported when the reading is less than detection limit value

6)		·····	,		***		
Flame Retardants	1	2	3	4	5	Detection Limit	Limit
Polybrominated Biphenyls (Mono – Deca)	ND	ND	ND	ND	ND	50 ppm	1000 ppm
Monobromobiphenyl	ND	ND	ND	ND	ND	5 ppm	
Dibromobiphenyl	ND	ND	ND	ND	ND	5 ppm	÷+
Tribromobiphenyl	ND	ND	ND	ND	ND	5 ppm	PM 444
Tetrabromobiphenyl	ND	ND	ND	ND	ND	5 ppm	
Pentabromobiphenyl	ND	ND	ND	ND	ND	5 ppm	
Hexabromobiphenyl	ND	ND	ND	ND	ND	5 ppm	m
Heptabromobiphenyl	ND	ND	ND	ND	ND	5 ppm	****
Octabromobiphenyl	ND	ND	ND	ND	ND	5 ppm	
Nonabromobiphenyl	ND	ND	ND	ND	ND	5 ppm	
Decabromobiphenyl	ND	ND	ND	ND	ND	5 ppm	
Polybrominated Diphenylethers (Mono – Nona)	ND	ND	ND	ND	ND	45 ppm	1000 ppm
Monobromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	en
Dibromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	
Tribromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	
Tetrabromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	
Pentabromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	***
Hexabromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	
Heptabromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	vice shift
Octabromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	
Nonabromodiphenyl ether	ND	ND	ND	ND	ND	5 ppm	AL 14
Decabromodiphenyl ether*	ND	ND	ND	ND	ND	5 ppm	See remark

Note ppm = mg/kg

ND = Not Detected

Not detected is reported when the reading is less than detection limit value.

Remark: \* Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified under document 2005/717/EC.

Sample Description:

- 1. Black Plastic w/ White Printing (Switch Case)
- 2. Pale Yellow Plastic (Spring Holder)

- Silvery Metal (Spring)
  Bronze Metal w/ Silvery Plating (Terminal)
  Silvery Metal w/ Bronze Metal (Contact Plate)

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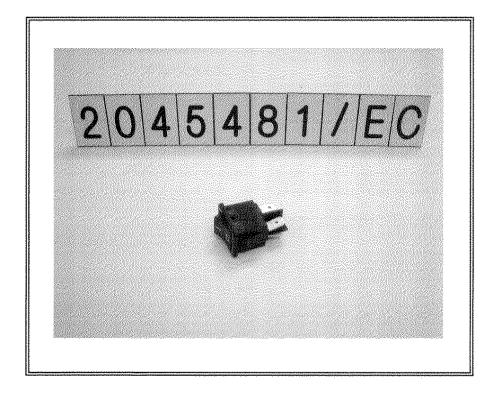


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## PHOTO APPENDIX



SGS authenticate the photo on original report only

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

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