

WALSIN TECHNOLOGY CORPORATION Report No. : CE/2005/B3004

NO. 1, EAST 15TH. STREET, K. E. P. Z., KAOHSIUNG, 806 Date : 2005/11/21

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#### The following merchandise was (were) submitted and identified by the client as:

<u>Type of Product</u>: RESISTOR PRODUCTS

Style/Item No : RESISTOR ARRAY & NETWORK (WA04, WA06, WT04

SERIES)

Sample Received : 2005/11/14

<u>Testing Date</u> : 2005/11/14 TO 2005/11/21

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<u>Test Result</u>: - Please see the next page -

Daniel Yen, M.R. / Operation Mana Signed for and on behalf of SGS TAIWAN LTD.



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#### **Test Result**

PART NAME NO.1 : MIXED ALL PARTS

(Dank Idana (a))	TT 14	No. 41 and	MDI	Result
Test Item (s):	Unit	Method	MDL	No.1
Asbestos				
Anthrophyllite(CAS NO.017068-78-9)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Amosite(CAS NO.012172-73-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Tremolite(CAS NO.014567-73-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Chrysotile(CAS NO.012001- 29-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Crocidolite(CAS NO.012001- 28-4)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Actinolite(CAS NO.013768- 00-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative

Test Item (s):	Unit	Method	MDL	Result
	Onit	Method	MIDL	No.1
AZO		As per LMBG 8202-2		
4-AMINODIPHENYL (CAS NO.92-67-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
BENZIDINE (CAS NO.92- 87-5)	ppm	Analysis was performed by GC/MS.	3	N.D.
4-CHLORO-O-TOLUIDINE (CAS NO.95-69-2)	ppm	Analysis was performed by GC/MS.	3	N.D.
2-NAPHTHYLAMINE (CAS NO.91-59-8)	ppm	Analysis was performed by GC/MS.	3	N.D.



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Took Item (a):			1501	Result
Test Item (s):	Unit	Method	MDL	No.1
O-AMINOAZOTOLUENE (CAS NO.97-56-3)	ppm	Analysis was performed by GC/MS.	3	N.D.
2-AMINO-4-NITROTOLUENE (CAS NO.99-55-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-CHLOROANILINE (CAS NO.106-47-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4-DIAMINOANISOLE (CAS NO.615-05-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4- DIAMINODIPHENYLMETHA NE (CAS NO.101-77-9)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DICHLOROBENZIDINE (CAS NO.91-94-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHOXYBENZIDINE (CAS NO.119-90-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHYLBENZIDINE (CAS NO.119-93-7)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHYL-4,4- DIAMINODIPHENYLMETHA NE (CAS NO.838-88-0)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-CRESIDINE(2-METHOXY- 5-METHYLANILINE) (CAS NO.120-71-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-METHYLENE-BIS-(2- CHLORANILINE) (CAS NO.101-14-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-OXYDIANILINE (CAS NO.101-80-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-THIODIANILINE (CAS NO.139-65-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
O-TOLUIDINE (CAS NO.95- 53-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4-TOLUYLENDIAMINE (CAS NO.95-80-7)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4,5-TRIMETHYLANILINE (CAS NO.137-17-7)	ppm	Analysis was performed by GC/MS.	3	N.D.



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Test Item (s):	TI34	B/CoAlbord	MDI	Result
	Unit	Method	MDL	No.1
O-ANISIDINE (CAS NO.90-04-0)		Analysis was performed by GC/MS.	3	N.D.
P-AMINOAZOBENZENE (CAS NO.60-09-3)	ppm	Analysis was performed by GC/MS.	3	N.D.

<b>75</b> - 4 <b>7</b> 4 - 11 4 3 3	TT 14	W. 45 . 5	MDI	Result
Test Item (s):	Unit	Method	MDL	No.1
CFC's(Chlorofluorocarbons)		With reference to US EPA 8260.		
Group I				
Chlorofluorocarbon-11(CAS No:000075-69-4)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-12(CAS No:000075-71-8)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-113(CAS No:000076-13-1)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-114(CAS No:000076-14-2)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-115(CAS No:000076-15-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Group III				
Chlorofluorocarbon-13(CAS No:000075-72-9)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-111(CAS No:000354-56-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-112(CAS No:000076-12-0)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.



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Toot Itom (a):	Unit	Method	MDI	Result
Test Item (s):	OIIIC	Method	MDL	No.1
Chlorofluorocarbon-211(CAS No:135401-87-5)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-212(CAS No:076564-99-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-213(CAS No:060285-54-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-214(CAS No:002268-46-4)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-215(CAS No:000076-17-5)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-216(CAS No:001652-80-8)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-217(CAS No:000422-86-6)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.

Test Item (s):	TI34	Broth od	MDI	Result
	Unit	Method	MDL	No.1
Chlorinated Paraffin (C10~C13) (CAS NO:010871- 26-2)	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by GC/MS or GC/ECD.	0.01	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
Formaldehyde(CAS No:000050-00-0)	ppm	With reference to DIN 53315 & USEPA 8315A. Analysis was performed by HPLC/DAD/MS	0.2	N.D.



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Test Item (s):	TT \$4	Method	MDL	Result
	Unit	Method		No.1
Halon		With reference to US EPA 8260.		
Halon-1211(CAS No:000353-59-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Halon-1301(CAS No:000075-63-8)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Halon-2402(CAS No:000124-73-1)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.

Took Itom (a)	Unit	Method	MDI	Result
Test Item (s):	Ollic	Method	MDL	No.1
HCFC's(Hydrogenated chlorofluorocarbons)		With reference to US EPA 8260.		
Hydrochlorofluorocarbon- 21(CAS No.:000075-43-4)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 22(CAS No.:000075-45-6)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 31(CAS No.:000593-70-4)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 121(CAS No.:000354-14-3)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 122(CAS No.:000354-21-2)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.



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Took Itom (a):	TT34	Method	MDL	Result
Test Item (s):	Unit	Method	MDL	No.1
Hydrochlorofluorocarbon- 123(CAS No.:000306-83-1)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 124(CAS No.:002837-89-0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 131(CAS No.:000359-28-4)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 131b(CAS No.:000471-43-2)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 133a(CAS No.:000075-88-7)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 141b(CAS No.:001717-00-6)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 221	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 222(CAS No.:000422-30-0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 223	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.



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Test Item (s):	TT\$4	Method	MDL	Result
	Unit	Method	MDL	No.1
Hydrochlorofluorocarbon- 224	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 225ca(CAS No.:000422-56- 0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 225cb(CAS No.:000507-55- 1)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 226(CAS No.:000431-87-8)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 231	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 232	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 233	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 234	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 235(CAS No.:013838-16-9)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.



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Took Itam (a)	Unit Method	MDL	Result	
Test Item (s):	Unit	Method	MDL	No.1
Hydrochlorofluorocarbon- 241	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 242	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 243(CAS No.:000338-75-0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 244	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 251	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 252	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 253(CAS No.:000354-06-1)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 261(CAS No.:000420-97-3)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon- 262(CAS No.:000420-97-3)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.



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Test Item (s):	Unit	TImit Worth of	i MDL	Result
	Unit	Method		No.1
Hydrochlorofluorocarbon- 271		Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.

Took Itom (a)	Unit Method	TImit	TTmi4	Their Broth of	MDL	Result
Test Item (s):		Method	MIDL	No.1		
Mirex(CAS NO:002385-85-5)		Analysis was performed by GC/MS.	4	N.D.		

Test Item (s):	Unit Method	MDL	Result	
		Method	MDL	No.1
Organic-tin coumpounds				
Triphenyl Tin(TPT)(CAS NO:000668-34-8)	ppm	With reference to 89/677/EEC & DIN 38407. Analysis was performed by GC/FPD.	0.03	N.D.
Tributyl Tin(TBT)	ppm	With reference to 89/677/EEC & DIN 38407. Analysis was performed by GC/FPD.	0.03	N.D.

Test Item (s):	TIm:4	TT	MDI	Result
	Unit Method	MDL	No.1	
PCBs(Polychlorinated Biphenyls)(CAS NO:001336- 36-3)	ppm	With reference to USEPA 8082A. Analysis was performed by GC/MS or GC/ECD.	0.5	N.D.

Mant Ham (a)	TTm#4	TT	MDL	Result
Test Item (s):	Unit	Method		No.1
Polychlorinated Naphthalene	ppm	With reference to 83/264/EEC & EPA 8270D. Analysis was performed by GC/MS.	5	N.D.



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Took Home (a).	Unit Method	MDL	Result	
Test Item (s):	Onit	Wethou	MIDL	No.1
PCTs(Polychlorinated Terphenyls)		Analysis was performed by GC/MS or GC/ECD.	0.5	N.D.

Took Itom (a).	TT 14	Nr. 11 1	MDI	Result
Test Item (s):	Unit	Method	MDL	No.1
Monobromobiphenyl	%		0.0005	N.D.
Dibromobiphenyl	%		0.0005	N.D.
Tribromobiphenyl	%		0.0005	N.D.
Tetrabromobiphenyl	%	With reference to	0.0005	N.D.
Pentabromobiphenyl	%	USEPA3540C or	0.0005	N.D.
Hexabromobiphenyl	%	USEPA3550C. Analysis was	0.0005	N.D.
Heptabromobiphenyl	%	performed by HPLC/DAD, LC/MS or GC/MS.	0.0005	N.D.
Octabromobiphenyl	%	(prohibited by 2002/95/EC	0.0005	N.D.
Nonabromobiphenyl	%	(RoHS), 83/264/EEC, and	0.0005	N.D.
Decabromobiphenyl	%	76/769/EEC)	0.0005	N.D.
Total PBBs (Polybrominated	%		-	N.D.
biphenyls)/Sum of above				
Monobromobiphenyl ether	%		0.0005	N.D.
Dibromobiphenyl ether	%		0.0005	N.D.
Tribromobiphenyl ether	%		0.0005	N.D.
Tetrabromobiphenyl ether	%	With reference to	0.0005	N.D.
Pentabromobiphenyl ether	%	USEPA3540C or	0.0005	N.D.
Hexabromobiphenyl ether	%	USEPA3550C. Analysis was performed by HPLC/DAD,	0.0005	N.D.
Heptabromobiphenyl ether	%	LC/MS or GC/MS.	0.0005	N.D.
Octabromobiphenyl ether	%	(prohibited by 2002/95/EC	0.0005	N.D.
Nonabromobiphenyl ether	%	(RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.
Decabromobiphenyl ether	%		0.0005	N.D.
Total PBBEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above	%		-	N.D.



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Test Item (s):	Unit Method	MDL	Result	
		Method	MIDL	No.1
PVC (CAS No:9002-86-2)		Analysis was performed by FTIR/ATR and Pyrolyzer-GC/MS.	1	Negative

Toot Itom (a)	Unit	Method	MDL	Result
Test Item (s):	Onit	Method		No.1
Chromium VI (Cr+6)	ppm	UV-VIS after reference to US EPA 3060A.	2	N.D.
Cadmium (Cd)	ppm	ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.	2	N.D.
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.

NOTE: (1) N.D. = Not detected (<MDL)

- (2) ppm = mg/kg
- (3) MDL = Method Detection Limit
- (4) " " = Not Regulation
- (5) Negative = < 1.0 %, Positive = > 1.0 %
- (6) The MDL is 5ppm for the single compound of CP



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