

測試報告

報告號碼 : CE/2006/95198A

日期 : 2006/09/26

頁數: 1 of 4

益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA COUNTY 500, TAIWAN (R. O. C.)

以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:


The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : NBR/SPCC 軸承橡膠密封圈
Sample Description : NBR/SPCC BEARING SEAL
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
(4) 參考US EPA 3060A方法, 用UV-VIS (US EPA 7196A)檢測六價鉻含量 / With reference to US EPA Method 3060A & 7196A for Hexavalent Chromium. Analysis was performed by UV/Vis Spectrometry.
(5) 參考US EPA 3550C方法萃取, 以高效液相層析儀/二極體陣列偵測器/質譜儀初篩, 再進一步參考US EPA 3540C方法, 以氣相層析儀/質譜儀檢測多溴聯苯和多溴聯苯醚含量。 / With reference to US EPA 3540C, Analysis was performed by GC/MS and screening via US EPA 3550C with HPLC/DAD/MS.

測試結果 / Test Result(s) : - 請見下一頁 -


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

From NECO - Bearing Supplier



NECO TECHNOLOGY INDUSTRY CO., LTD.

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測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	79.2	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Chromium VI (Cr+6)	(4)	n.d.	2
總多溴聯苯 / Total PBBs	(5)	n.d.	-
一溴聯苯 / Monobromobiphenyl		n.d.	5
二溴聯苯 / Dibromobiphenyl		n.d.	5
三溴聯苯 / Tribromobiphenyl		n.d.	5
四溴聯苯 / Tetrabromobiphenyl		n.d.	5
五溴聯苯 / Pentabromobiphenyl		n.d.	5
六溴聯苯 / Hexabromobiphenyl		n.d.	5
七溴聯苯 / Heptabromobiphenyl		n.d.	5
八溴聯苯 / Octabromobiphenyl		n.d.	5
九溴聯苯 / Nonabromobiphenyl		n.d.	5
十溴聯苯 / Decabromobiphenyl		n.d.	5
總多溴聯苯醚 / Total PBBEs (PBDEs)		n.d.	-
一溴聯苯醚 / Monobromobiphenyl ether		n.d.	5
二溴聯苯醚 / Dibromobiphenyl ether		n.d.	5
三溴聯苯醚 / Tribromobiphenyl ether		n.d.	5
四溴聯苯醚 / Tetrabromobiphenyl ether		n.d.	5
五溴聯苯醚 / Pentabromobiphenyl ether		n.d.	5
六溴聯苯醚 / Hexabromobiphenyl ether		n.d.	5
七溴聯苯醚 / Heptabromobiphenyl ether		n.d.	5
八溴聯苯醚 / Octabromobiphenyl ether		n.d.	5
九溴聯苯醚 / Nonabromobiphenyl ether	n.d.	5	
十溴聯苯醚 / Decabromobiphenyl ether	n.d.	5	
一至九溴聯苯醚 / Total of Mono to Nona (Note 5)	n.d.	-	

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 整體混測 / MIXED ALL PARTS



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彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA
COUNTY 500, TAIWAN (R. O. C.)

- Note:
- (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)
 - (2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)
 - (3) MDL = Method Detection Limit / 方法偵測極限值
 - (4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項，樣品是完全消化
 - (5) Sum of Mono to NonabDE & according to 2005/717/EC DecaBDE is exempt.
根據2005年10月13日歐盟會議公佈2005/717/EC，修訂2002/95/EC內容，通過解除
高分子材質中十溴聯苯醚之使用限制。
 - (6) "-" = Not Regulated / 無規格值

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以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:


The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : SPCC 軸承防塵蓋
Sample Description : SPCC BEARING SHUELD
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

=====
測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
(4) 參考IEC 62321 Ed. 1 (111/54/CDV)方法, 用Spot test / Colorimetric方法檢測六價鉻含量 / With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Hexavalent Chromium by Spot test / Colorimetric Method.

測試結果 / Test Result(s) : - 請見下一頁 -


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



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測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	9.3	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	Negative	(Note 6)

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 銀色金屬 / SILVER COLORED METAL

- Note : (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)
 (2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)
 (3) MDL = Method Detection Limit / 方法偵測極限值
 (4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項, 樣品是完全消化
 (5) Negative = Undetectable / 陰性(未偵測到), Positive = Detectable 陽性(已偵測到)
 (6) Detection limit = 1 mg/kg of Hexavalent Chromium content on the tested areas.
 Negative = less than detection limit
 The tested sample should be further verified by boiling water extraction method if the spot test result cannot be confirmed. Boiling-water extraction:
 Detection limit = 0.02 mg/kg of Hexavalent Chromium content on tested areas.
 Negative = less than detection limit. /

六價鉻在測試區域的偵測極限是 1 mg/kg; Negative 表示小於偵測極限
 假使 spot test 無法確認是否含六價鉻時須使用沸水萃取法再進一步確認。
 沸水萃取法: 六價鉻在測試區域的偵測極限是 0.02 mg/kg

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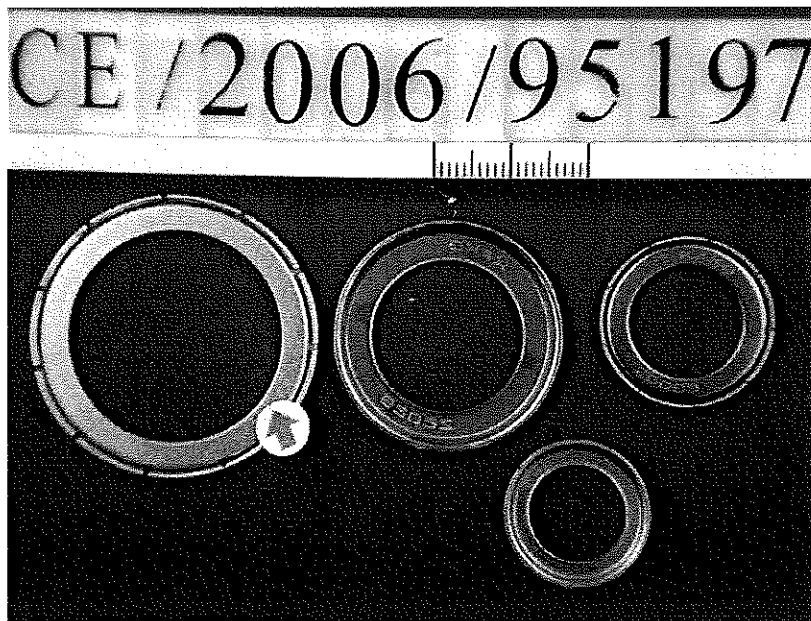
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** 報告結尾 **



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COUNTY 500, TAIWAN (R. O. C.)

以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:


The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : PA66 軸承尼龍保持架
Sample Description : PA66 BEARING NYLON RETAINER
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

=====
測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
(4) 參考US EPA 3060A方法, 用UV-VIS (US EPA 7196A)檢測六價鉻含量 / With reference to US EPA Method 3060A & 7196A for Hexavalent Chromium. Analysis was performed by UV/Vis Spectrometry.
(5) 參考US EPA 3550C方法萃取, 以高效液相層析儀/二極體陣列偵測器/質譜儀初篩, 再進一步參考US EPA 3540C方法, 以氣相層析儀/質譜儀檢測多溴聯苯和多溴聯苯醚含量。 / With reference to US EPA 3540C, Analysis was performed by GC/MS and screening via US EPA 3550C with HPLC/DAD/MS.

測試結果 / Test Result(s) : - 請見下一頁 -


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



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測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	n.d.	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Chromium VI (Cr+6)	(4)	n.d.	2
總多溴聯苯 / Total PBBs	(5)	n.d.	-
一溴聯苯 / Monobromobiphenyl		n.d.	5
二溴聯苯 / Dibromobiphenyl		n.d.	5
三溴聯苯 / Tribromobiphenyl		n.d.	5
四溴聯苯 / Tetrabromobiphenyl		n.d.	5
五溴聯苯 / Pentabromobiphenyl		n.d.	5
六溴聯苯 / Hexabromobiphenyl		n.d.	5
七溴聯苯 / Heptabromobiphenyl		n.d.	5
八溴聯苯 / Octabromobiphenyl		n.d.	5
九溴聯苯 / Nonabromobiphenyl		n.d.	5
十溴聯苯 / Decabromobiphenyl		n.d.	5
總多溴聯苯醚 / Total PBBEs(PBDEs)		n.d.	-
一溴聯苯醚 / Monobromobiphenyl ether		n.d.	5
二溴聯苯醚 / Dibromobiphenyl ether		n.d.	5
三溴聯苯醚 / Tribromobiphenyl ether		n.d.	5
四溴聯苯醚 / Tetrabromobiphenyl ether		n.d.	5
五溴聯苯醚 / Pentabromobiphenyl ether		n.d.	5
六溴聯苯醚 / Hexabromobiphenyl ether		n.d.	5
七溴聯苯醚 / Heptabromobiphenyl ether		n.d.	5
八溴聯苯醚 / Octabromobiphenyl ether		n.d.	5
九溴聯苯醚 / Nonabromobiphenyl ether	n.d.	5	
十溴聯苯醚 / Decabromobiphenyl ether	n.d.	5	
一至九溴聯苯醚 / Total of Mono to Nona(Note 5)	n.d.	-	

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 褐色塑膠 / BROWN PLASTIC

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COUNTY 500, TAIWAN (R. O. C.)

- Note:
- (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)
 - (2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)
 - (3) MDL = Method Detection Limit / 方法偵測極限值
 - (4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項，樣品是完全消化
 - (5) Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.
根據2005年10月13日歐盟會議公佈2005/717/EC，修訂2002/95/EC內容，通過解除
高分子材質中十溴聯苯醚之使用限制。
 - (6) "-" = Not Regulated / 無規格值

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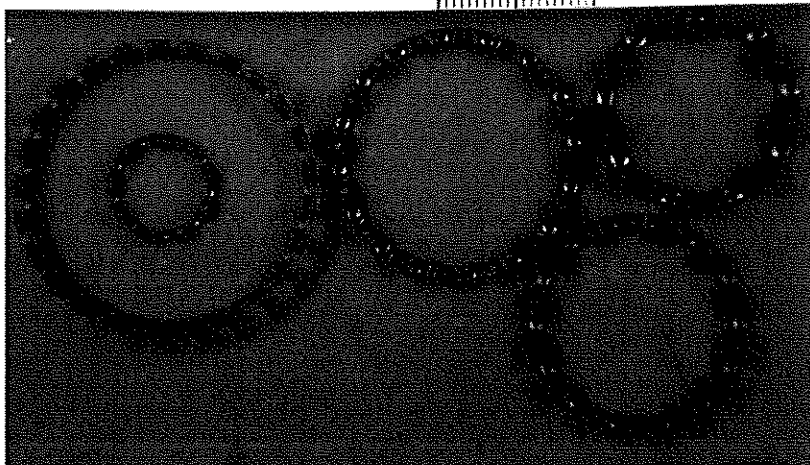


YI CHANG BEARING CO., LTD.

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CE / 2006 / 95196



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以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:

The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : SPCC 軸承保持架
Sample Description : SPCC BEARING RETAINER
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method :

- (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
- (2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
- (3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
- (4) 參考IEC 62321 Ed. 1 (111/54/CDV)方法, 用Spot test / Colorimetric方法檢測六價鉻含量 / With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Hexavalent Chromium by Spot test / Colorimetric Method.

測試結果 / Test Result(s) : - 請見下一頁 -


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



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測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	9.4	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	Negative	(Note 6)

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 銀灰色金屬 / SILVER-GRAY METAL

- Note : (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)
 (2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)
 (3) MDL = Method Detection Limit / 方法偵測極限值
 (4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項, 樣品是完全消化
 (5) Negative = Undetectable / 陰性(未偵測到), Positive = Detectable 陽性(已偵測到)
 (6) Detection limit = 1 mg/kg of Hexavalent Chromium content on the tested areas.
 Negative = less than detection limit
 The tested sample should be further verified by boiling water extraction method if the spot test result cannot be confirmed. Boiling-water extraction:
 Detection limit = 0.02 mg/kg of Hexavalent Chromium content on tested areas.
 Negative = less than detection limit. /
- 六價鉻在測試區域的偵測極限是 1 mg/kg; Negative 表示小於偵測極限
 假使spot test無法確認是否含六價鉻時須使用沸水萃取法再進一步確認。
 沸水萃取法: 六價鉻在測試區域的偵測極限是 0.02 mg/kg

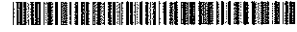
測試報告

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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA
COUNTY 500, TAIWAN (R. O. C.)



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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA COUNTY 500, TAIWAN (R. O. C.)

以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:


The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : SUS440 軸承內外圈
Sample Description : SUS440 BEARING INNER & OUTER RING
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

=====
測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
(4) 參考IEC 62321 Ed. 1 (111/54/CDV)方法, 用Spot test / Colorimetric方法檢測六價鉻含量 / With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Hexavalent Chromium by Spot test / Colorimetric Method.

測試結果 / Test Result(s) : - 請見下一頁 -


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



測試報告

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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA COUNTY 500, TAIWAN (R. O. C.)

測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	5.9	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	Negative	(Note 6)

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 銀灰色金屬 / SILVER-GRAY METAL

- Note : (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)
 (2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)
 (3) MDL = Method Detection Limit / 方法偵測極限值
 (4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項, 樣品是完全消化
 (5) Negative = Undetectable / 陰性(未偵測到), Positive = Detectable 陽性(已偵測到)
 (6) Detection limit = 1 mg/kg of Hexavalent Chromium content on the tested areas.
 Negative = less than detection limit
 The tested sample should be further verified by boiling water extraction method if the spot test result cannot be confirmed. Boiling-water extraction:
 Detection limit = 0.02 mg/kg of Hexavalent Chromium content on tested areas.
 Negative = less than detection limit. /
- 六價鉻在測試區域的偵測極限是 1 mg/kg; Negative 表示小於偵測極限
 假使 spot test 無法確認是否含六價鉻時須使用沸水萃取法再進一步確認。
 沸水萃取法: 六價鉻在測試區域的偵測極限是 0.02 mg/kg

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益昌軸承有限公司

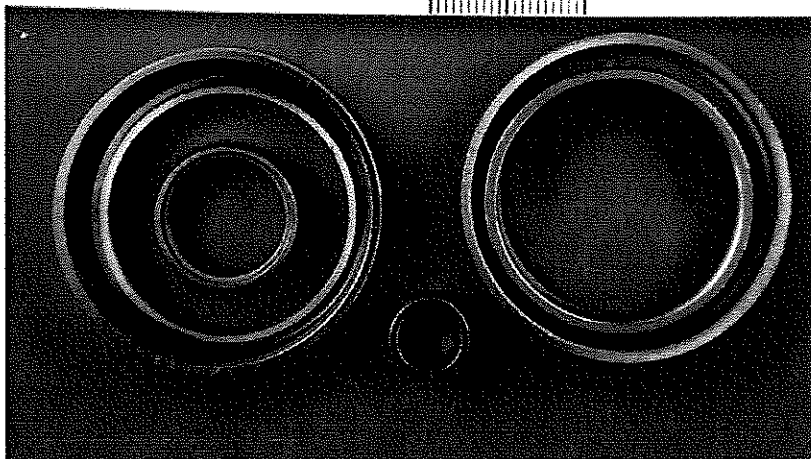


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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA

COUNTY 500, TAIWAN (R. O. C.)

以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:


The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : SUJ2 軸承內外圈
Sample Description : SUJ2 BEARING INNER & OUTER RING
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

=====
測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
(4) 參考IEC 62321 Ed. 1 (111/54/CDV)方法, 用Spot test / Colorimetric方法檢測六價鉻含量 / With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Hexavalent Chromium by Spot test / Colorimetric Method.

測試結果 / Test Result(s) : - 請見下一頁 -


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

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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA COUNTY 500, TAIWAN (R. O. C.)

測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	7.1	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	Negative	(Note 6)

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 銀灰色金屬 / SILVER-GRAY METAL

- Note : (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)
 (2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)
 (3) MDL = Method Detection Limit / 方法偵測極限值
 (4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項, 樣品是完全消化
 (5) Negative = Undetectable / 陰性(未偵測到), Positive = Detectable 陽性(已偵測到)
 (6) Detection limit = 1 mg/kg of Hexavalent Chromium content on the tested areas.
 Negative = less than detection limit
 The tested sample should be further verified by boiling water extraction method if the spot test result cannot be confirmed. Boiling-water extraction:
 Detection limit = 0.02 mg/kg of Hexavalent Chromium content on tested areas.
 Negative = less than detection limit. /

六價鉻在測試區域的偵測極限是 1 mg/kg; Negative 表示小於偵測極限
 假使spot test無法確認是否含六價鉻時須使用沸水萃取法再進一步確認。
 沸水萃取法: 六價鉻在測試區域的偵測極限是 0.02 mg/kg

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益昌軸承有限公司

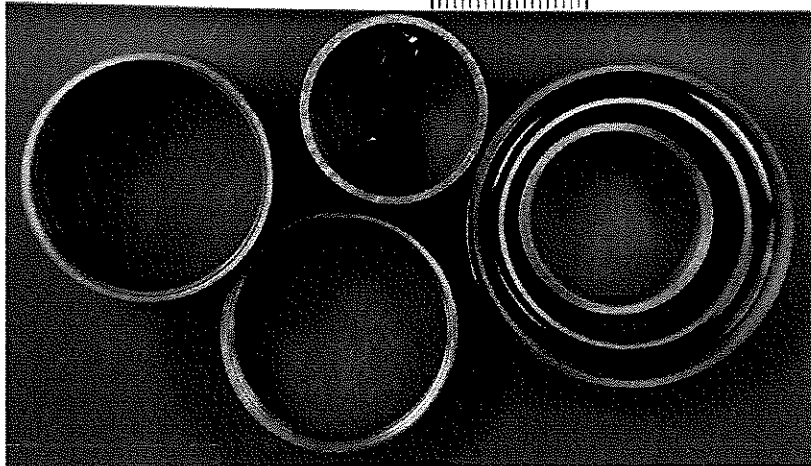


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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA

COUNTY 500, TAIWAN (R. O. C.)

以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:


The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : SUJ2 鋼珠
Sample Description : SUJ2 BALL
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

=====
測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the
RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘
含量 / With reference to BS EN 1122:2001, Method B for
Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量
/ With reference to US EPA Method 3050B for Lead Content.
Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量
/ With reference to US EPA Method 3052 for Mercury Content.
Analysis was performed by ICP-AES.
(4) 參考IEC 62321 Ed. 1 (111/54/CDV)方法, 用Spot test /
Colorimetric方法檢測六價鉻含量 / With reference to IEC
62321, ED.1 (111/54/CDV). Determination of Hexavalent
Chromium by Spot test / Colorimetric Method.

測試結果 / Test Result(s) : - 請見下一頁 -


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

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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA

COUNTY 500, TAIWAN (R. O. C.)

測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	n.d.	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	Negative	(Note 6)

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 銀色金屬 / SILVER COLORED METAL

Note : (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)

(2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)

(3) MDL = Method Detection Limit / 方法偵測極限值

(4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項, 樣品是完全消化

(5) Negative = Undetectable / 陰性(未偵測到), Positive = Detectable 陽性(已偵測到)

(6) Detection limit = 1 mg/kg of Hexavalent Chromium content on the tested areas.

Negative = less than detection limit

The tested sample should be further verified by boiling water extraction

method if the spot test result cannot be confirmed. Boiling-water extraction:

Detection limit = 0.02 mg/kg of Hexavalent Chromium content on tested areas.

Negative = less than detection limit. /

六價鉻在測試區域的偵測極限是 1 mg/kg; Negative 表示小於偵測極限

假使spot test無法確認是否含六價鉻時須使用沸水萃取法再進一步確認。

沸水萃取法: 六價鉻在測試區域的偵測極限是 0.02 mg/kg

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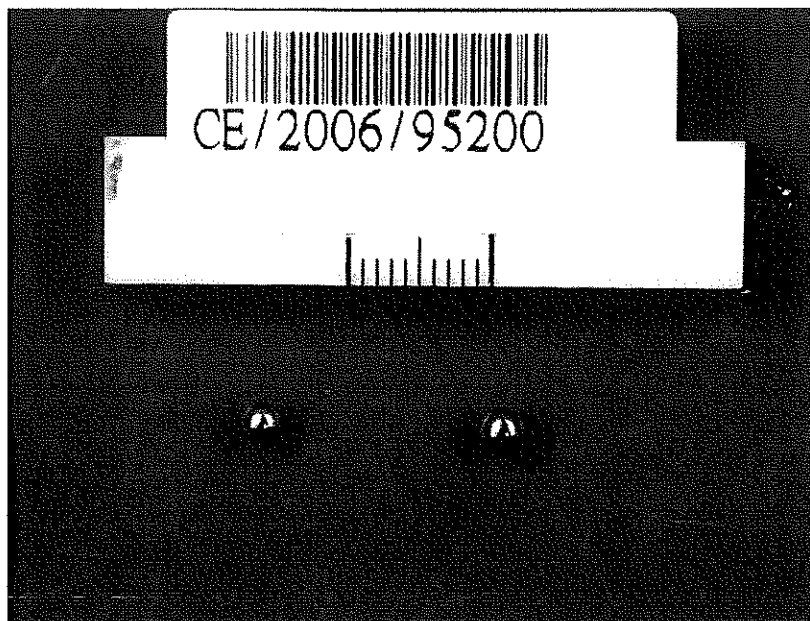
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** 報告結尾 **

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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA

COUNTY 500, TAIWAN (R. O. C.)

以下測試樣品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:

The following sample(s) was/were submitted and identified by/on behalf of the client as :

樣品名稱 : Si3N4 陶瓷球
Sample Description : Si3N4 CERAMIC BALL
收件日期(Sample Received) : 2006/9/19
測試期間(Testing Period) : 2006/9/19 TO 2006/09/26

=====
測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求 / With reference to the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
(4) 參考US EPA 3060A方法, 用UV-VIS (US EPA 7196A)檢測六價鉻含量 / With reference to US EPA Method 3060A & 7196A for Hexavalent Chromium. Analysis was performed by UV/Vis Spectrometry.
(5) 參考US EPA 3550C方法萃取, 以高效液相層析儀/二極體陣列偵測器/質譜儀初篩, 再進一步參考US EPA 3540C方法, 以氣相層析儀/質譜儀檢測多溴聯苯和多溴聯苯醚含量。 / With reference to US EPA 3540C, Analysis was performed by GC/MS and screening via US EPA 3550C with HPLC/DAD/MS.

測試結果 / Test Result(s) : - 請見下一頁 -


Daniel Yen, M.F., Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.



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測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result	方法偵測 極限值 (MDL)
		No.1	
鎘 / Cadmium (Cd)	(1)	n.d.	2
鉛 / Lead (Pb)	(2)	n.d.	2
汞 / Mercury (Hg)	(3)	n.d.	2
六價鉻 / Chromium VI (Cr+6)	(4)	n.d.	2
總多溴聯苯 / Total PBBs	(5)	n.d.	-
一溴聯苯 / Monobromobiphenyl		n.d.	5
二溴聯苯 / Dibromobiphenyl		n.d.	5
三溴聯苯 / Tribromobiphenyl		n.d.	5
四溴聯苯 / Tetrabromobiphenyl		n.d.	5
五溴聯苯 / Pentabromobiphenyl		n.d.	5
六溴聯苯 / Hexabromobiphenyl		n.d.	5
七溴聯苯 / Heptabromobiphenyl		n.d.	5
八溴聯苯 / Octabromobiphenyl		n.d.	5
九溴聯苯 / Nonabromobiphenyl		n.d.	5
十溴聯苯 / Decabromobiphenyl		n.d.	5
總多溴聯苯醚 / Total PBBEs (PBDEs)		n.d.	-
一溴聯苯醚 / Monobromobiphenyl ether		n.d.	5
二溴聯苯醚 / Dibromobiphenyl ether		n.d.	5
三溴聯苯醚 / Tribromobiphenyl ether		n.d.	5
四溴聯苯醚 / Tetrabromobiphenyl ether		n.d.	5
五溴聯苯醚 / Pentabromobiphenyl ether		n.d.	5
六溴聯苯醚 / Hexabromobiphenyl ether		n.d.	5
七溴聯苯醚 / Heptabromobiphenyl ether		n.d.	5
八溴聯苯醚 / Octabromobiphenyl ether		n.d.	5
九溴聯苯醚 / Nonabromobiphenyl ether	n.d.	5	
十溴聯苯醚 / Decabromobiphenyl ether	n.d.	5	
一至九溴聯苯醚 / Total of Mono to Nona(Note 5)	n.d.	-	

測試部位描述 / Test Part Description

測試部位 / PART NAME NO.1 : 鐵灰色陶瓷 / IRON-GRAY CERAMIC

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益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA
COUNTY 500, TAIWAN (R. O. C.)

- Note : (1) mg/kg = ppm, 0.1% = 1000 ppm(mg/kg), 0.0005% = 5 ppm(mg/kg)
(2) n.d. = N.D. = ND = Not Detected / 未檢出(低於方法偵測極限值)
(3) MDL = Method Detection Limit / 方法偵測極限值
(4) Sample was totally digested for Pb, Cd, Hg / 對於鉛鎘汞測項，樣品是完全消化
(5) Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.
根據2005年10月13日歐盟會議公佈2005/717/EC，修訂2002/95/EC內容，通過解除
高分子材質中十溴聯苯醚之使用限制。
(6) "-" = Not Regulated / 無規格值

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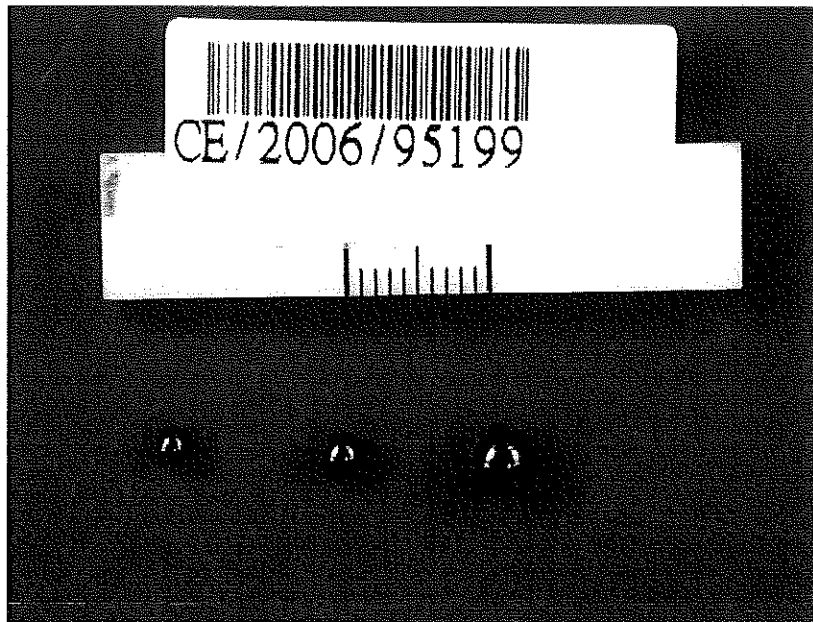
益昌軸承有限公司



YI CHANG BEARING CO., LTD.

彰化市縣東路一段137-1號

NO. 137-1, SEC. 1, SIANDONG RD., CHANGHUA CITY, CHANGHUA COUNTY 500, TAIWAN (R. O. C.)



** 報告結尾 **