Prüfbericht - Nr.: *Test Report No.:*	**143162388b 001**	**Seite 1 von 9** *Page 1 of 9*

Auftraggeber: *Client:*	**Scapequest Pty Ltd Tradingas Battlefield Sports** Unit 1, 6 Graham Street, Underwood, Brisbane, Queensland
Gegenstand der Prüfung: *Test Item:*	**Toy Gun**

Bezeichnung: *Identification:*	COBRA	**Serien-Nr.:** *Serial No.:*	**Engineering Sample**
Wareneingangs-Nr.: *Receipt No.:*	00110307074	**Eingangsdatum:** *Date of Receipt:*	07.03.2011

Prüfort: *Testing Location:*	**TÜV Rheinland Hong Kong Ltd.** 9-10/Floor, Emperor International Square, 7 Wang Tai Road, Kowloon Bay, Kowloon, Hong Kong
Prüfgrundlage: *Test Specification:*	**WEEE Directive 2002/96/EC** **Article 7-Recovery** **Calculation of Theoretical Recovery and Recycling Rate**
Prüfergebnis: *Test Result:*	**Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).** *The test item passed the test specification(s).*
Prüflaboratorium: *Testing Laboratory:*	**TÜV Rheinland Hong Kong Ltd**

geprüft / *tested by*:

Datum *Date*	Name/Stellung *Name/Position*	Unterschrift *Signature*
16.06.2011	Nicky Leung / Project Engineer	

kontrolliert/ *reviewed by*:

Datum *Date*	Name/Stellung *Name/Position*	Unterschrift *Signature*
16.06.2011	Steve Kwok / Reviewer	

Sonstiges/ Other Aspects:

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Abkürzungen:	*P(ass)*	=	*entspricht Prüfgrundlage*	*Abbreviations:*	*P(ass)*	=	*passed*
	F(ail)	=	*entspricht nicht Prüfgrundlage*		*F(ail)*	=	*failed*
	N/A	=	*nicht anwendbar*		*N/A*	=	*not applicable*
	N/T	=	*nicht getestet*		*N/T*	=	*not tested*

Contents

4.1 General Remarks

1.1 Complementary Materials

No attachments.

4.2 General Product Information

2.1 Product Description

The product is **Toy Gun** it is classified as **Category 7** under Annex IA of Directive 2002/96/EC.

2.2 Submitted Documents

Bill of Material
Exploded Diagram

4.3 Assessment Description

3.1 Disassembly, Recovery and Recycling Flow

The product is disassembled into different parts (clumps) and grouped by the type of material sharing common characteristic or physical relationship (waste fractions) primarily based on the treatment requirements as set out in the WEEE directive annexe II, followed by the current state of the art recycling and recovery technology available in Taiwan. Materials for which currently no recycling technology is available or where the recycling is economically not feasible, or which contain hazardous substances, are assumed to be shredded, incinerated or disposed of to landfill with out further use.

Only bigger clumps that can be easily separated and that share a common characteristics or physical relationships are included in the recycling and reuse calculation. Other parts, respectively materials that cannot be separated by e.g. standard tools are classified as either unspecified materials or distributed to the relative waste fraction with highest content of waste is expected with reduced recovery rate.

3.2 Parameters

The calculation is based on waste fractions consisting of a typical material or substance composition for typical materials. (e.g. a power cord consists of copper wire and PVC, where as the PVC consists of a PVC, polyamide and polyester blend). For every waste fraction a theoretical recovery share for recycling and for incineration respectively waste disposal is assumed based on information provide by recycling companies. The recovery share may change over time as the recycling technology advances. The current recovery shares are available upon request.

3.3 Definition

1. **Regular Reuse/Recycling and Recovery Rate:** Applying commonly used recycling technology.
2. **Ideal Reuse/Recycling and Recovery Rate:** Applying highest recycling technology.
3. **Recycling potential:**

   Class A : Common recycling technology and high market need

   Class B : Recycling technology not popular and high market need

   Class C : Common recycling technology and low market need

   Class D : Recycling technology not popular and low market need

4.4 Assessment Results

4.1 Assessment Summary

Product Name/No.	Toy Gun/ COBRA	
		
Total Weight (g)	1857	
Connection Technique	Screw x 44 Snap x 2 Glued x 3	Cable x 41 Form x 8 Combination x 20
Disassembly Tools	Philip Screwdriver (+) Slotted Screwdriver (-) Scissor	Hand Plier Hex Screwdriver
Recommended Disassembly Sequence	See 4.6 Recommended Disassembly Sequence	
Derivative Summary	See 4.2 Product Derivative Table	
Derivative Rate	See 4.3 Product Derivative Summary	
Reuse/Recycling Rate	See 4.4 Test Result	
Recovery Rate	See 4.4 Test Result	

4.2 Product Derivative Table

Product Name/ Type		Toy Gun/ COBRA						
Derivative		Weight (g)	Weight (%)		Re-use (%)	Recycling (%)	Incineration (%)	Disposal (%)
Toy Gun/ COBRA	Plastic, PC	964	51.91%			^		
	Plastic, TPR	5	0.27%					^
	Stainless Steel	24	1.29%			^		
	Non-ferrous metal (alloy)	19	1.02%			^		
	Glass	18	0.97%			^		
	Aluminium	52	2.80%			^		
	Battery (Lithium)	350	18.85%			^ (13.19%)		^ (5.65%)
	Speaker	131	7.05%			^		
	Miscellaneous	163	8.78%					^
	Printed Circuit Board (PCB)	90	4.85%	Ideal		^		
				Regular				^
	Thin Cables	41	2.21%	Ideal		^		
				Regular		^ (0.77%)		^ (1.44%)
Total		**1857**	**100%**	**Ideal**	**0.00%**	**85.30%**	**0.00%**	**14.70%**
				Regular	**0.00%**	**79.02%**	**0.00%**	**20.98%**

4.3 Product Derivative Summary

	Toy Gun/ COBRA	
	Percentage of Weight (%)	
	Ideal	Regular
Reuse Weight	0.00%	0.00%
Recycling Weight	85.30%	79.02%
Incineration Weight	0.00%	0.00%
Disposal Weight	14.70%	20.98%
Product Sample Weight	100 %	

4.4 Test Result

PASS

	Toy Gun/ COBRA	
Required Reuse/Recycling Rate	**Testing Reuse/Recycling Rate**	
	Ideal	**Regular**
50%	85.30%	79.02%
Required Recovery Rate	**Testing Recovery Rate**	
	Ideal	**Regular**
70%	85.30%	79.02%

4.5 Product Component Disassembly Assessment Summary

Component Name		Toy Gun/ COBRA	
			
Weight, g		1857	
Disassembly Tools		Philip Screwdriver (+), Slotted Screwdriver (-), Scissor, Hand, Plier, Hex Screwdriver	
Connection Technique		Screw x 44, Cable x 41, Snap x 2, Form x 8, Glued x 3, Combination x 20	
Material		Plastic, PC: 964 g Plastic, TPR: 5 g Stainless Steel: 24 g Non-ferrous metal (alloy): 19 g Glass: 18 g Aluminium: 52 g Battery (Lithium): 350 g Speaker: 131 g Miscellaneous: 163 g Printed Circuit Board (PCB): 90 g Thin Cables: 41 g	
Recycling Evaluation	**Reuse Weight, g**	0	
	Recycling Weight, g	1584	
	Incineration Weight, g	0	
	Disposal Weight, g	273	
Recycling Potential		Plastic, PC	Class A
		Plastic, TPR	-
		Stainless Steel	Class A
		Non-ferrous metal (alloy)	Class B
		Glass	Class A
		Aluminium	Class A
		Battery (Lithium)	-
		Speaker	Class A
		Miscellaneous	-
		Printed Circuit Board (PCB)	-
		Thin Cables	-

4.6 Recommended Disassembly Sequence

Toy Gun/ COBRA

(a)	No.
Head infrared Sensor including cable and 2 boards but not polycarbonate dome	9
REFLEX SIGHT LENS	28
REAR HEAD SENSOR DOME	29
REAR HEAD SENSOR BASE	30
FRONT HEAD SENSOR DOME	31
FRONT HEAD SENSOR BASE	32
SOCKET HEAD CAP SCREW M3 x 20mm	39
PAN HEAD SELF-TAPPING SCREW 9.5mm	45
Key	47
(b)	
Liquid Crystal Display 4x16	3
Predator Muzzle Flash Board	6
Optical Lens	7
Infrared sensor that mounts inside main enclosure	10
NiMH Battery	13
ENCLOSURE LEFT	19
MUZZLE	21
REFLEX SIGHT LED/CABLE SUPPORT	25
GROUNDING PLATE	33
MUZZLE LENS GASKET	35
LCD LENS GASKET	36
PAN HEAD SELF-TAPPING SCREW 16mm	40
(c)	
SATR Main Board	1
Internal Antenna	5
Speaker	8
Direct Charge plug	11
Left red button	15
ENCLOSURE RIGHT	20
RECHARGE DUST CAP	24
GRILL COVER LABEL SET	46