WEEE Report

Report No.:	BSTDG190111152202CR
Sample Name:	FLASHLIGHT
Trade:	THRUNITE
Sample Model:	TN50
Test Item:	WEEE
Date:	2018-01-14

Prepared for

THRUNITE CO., LIMITED

Room A640, Tower A, NO.168 Baoyuan Road, Xixiang, Baoan District, Shenzhen 518102.China

Prepared by

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1. General Information

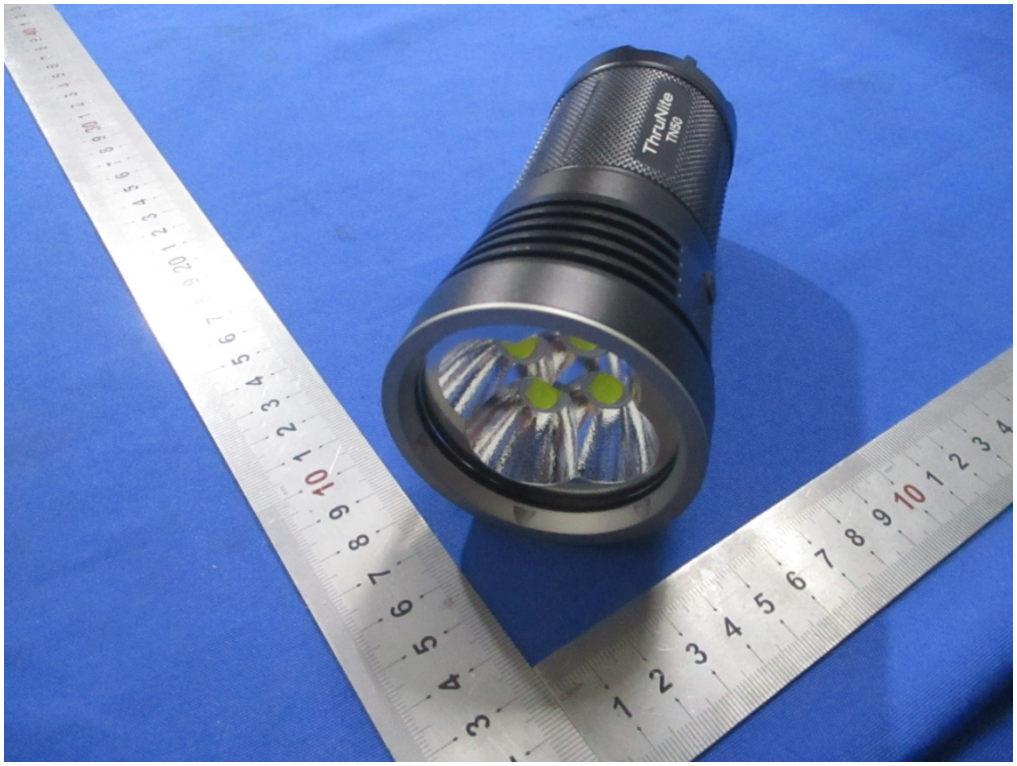
Applicant	THRUNITE CO., LIMITED
Address	Room A640, Tower A, NO.168 Baoyuan Road, Xixiang, Baoan District, Shenzhen 518102.China
Manufacturer	THRUNITE CO., LIMITED
Address	Room A640, Tower A, NO.168 Baoyuan Road, Xixiang, Baoan District, Shenzhen 518102.China
Product Name	Flashlight
Trade	THRUNITE
Product Model	TN50, T1, T2, TT10, TT20, TC15, TH30, TH01, TW10, TW20
Product Weight	662.4 g
Category under the WEEE Directive	2012/19/EU

2. Result of Reuse/Recycling/Recovery Assessment

Reuse/Recycling/Recovery	**Reuse/Recycling (%)**	**Recovery (%)**
Reuse/Recycling/Recovery Targets under the 2012/19/EU WEEE Directive	50	70
Result of Assessment	65.8	79.4
WEEE requirement compliance	OK	OK

Approved by:

3. Appearance of the Product

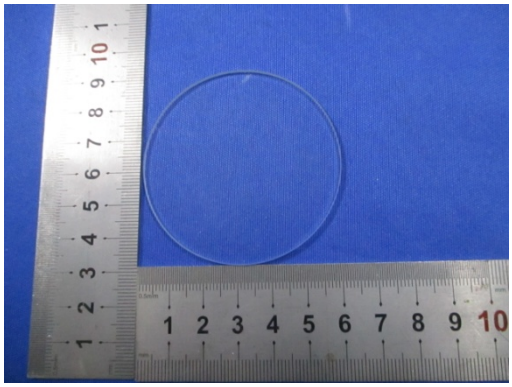
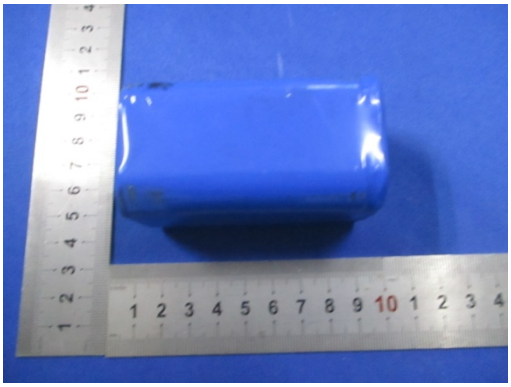
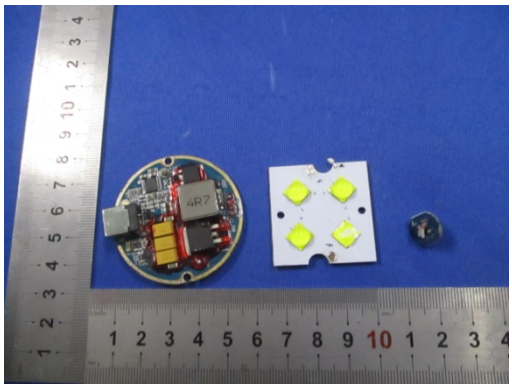
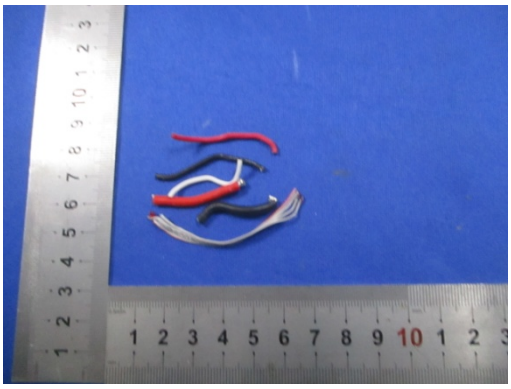


4. Selective Treatment for Materials and Components

According to Articles 8(5) and the Annex VII of the WEEE Directive, this product contains components and material items are described in the following table.

Component/material	Photo No.	Size & Quantity	Weight (g)
Printed circuit boards of PIE BOX generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres	E	d=4.4cm×1	41.6
Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps	--	--	--
External electric cables	--	--	--
Batteries	D	3.5cm×3.5cm×1	294.9

5. Disassembly Tree

A		**B**	
C		**D**	
E		**F**	

6. Disassembly Procedure

The disassembly procedure taken here is in accordance with the treatment requirements under the Annex II of the WEEE Directive. In addition, to consider economic and efficiency factors, manual operation and disassembly tools have been applied to separate the components and materials from this product in order to simulate the scenario at the treatment facility, and to achieve the objective that the separated components and materials can be reused, recycled and recovered.

6.1 Connection technique:

For this product, the connection technology including as following:

Screw: 4 Adhere: 0 Insert: 0

Pressing Fits: 0 Spline: 0

6.2 Disassembly tool:

The disassembly tools used for this product show as following:

Disassembly Tool	Pictures	Disassembly Tool	Pictures
Flat headed screwdriver		Cross screwdriver	

6.3 Disassembly time:

11 Minutes 37 Seconds

6.4 Loss during disassembly

Product weight before disassembly: 662.4g

Product weight after disassembly: 662.2g

Lost rate: 0.03%

7. Material and Recycling Information

According to the information declared by the applicant company, the material and recycling information for this product is described in the following table.

The reuse, recycling and recovery assessment for this product is based upon economic and efficiency considerations, and the waste treatment technologies and equipment that are most frequently available to the market.

Photo No.	Component/Material Composition	Weight (g)	Percent Weight (%)	Reuse/ Recycling (%)	Energy Recovery (%)	Recovery (%)
A	Metal	294.4	44.5	34.5	2.3	36.8
B	Plastic	12	1.8	0.8	0.2	1
C	Glass	17.1	2.6	0.6	0.3	0.9
D	Battery	294.9	44.5	28.7	9.8	38.5
E	PCB	41.6	6.3	1.1	0.9	2
F	Wire	2.2	0.3	0.1	0.1	0.2

Note:

Due to their insignificant weight and the difficulty of their separation in a manual operation, sticker, solder, paint and printing materials are not included in this assessment.

Plastic containing brominates flame retardant is not assessed in the list.

8. Recycling and Recovery Rate Calculation

Reuse Recycling& Recovery Rate using in the report are calculated as following formulas:

$$\text{Reuse \& Recycling Rate} = \frac{\text{Reuse \& Recycling Weight}}{\text{Product Total Weight}} (\%)$$

$$\text{Recovery Rate} = \frac{\text{Reuse \& Recycling Weight + Energy Recovery Weight}}{\text{Product Total Weight}} (\%)$$

Total weigh of the product is including the main product and accessories.

9. ANNEX VII of WEEE Directive

Selective treatment for materials and components of waste electrical and electronic equipment referred to in Article 8(2)

1. As a minimum the following substances, mixtures and components have to be removed from any separately collected WEEE:

— polychlorinated biphenyls (PCB) containing capacitors in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) ,

— mercury containing components, such as switches or backlighting lamps,

— batteries,

— printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres,

— toner cartridges, liquid and paste, as well as colour toner,

— plastic containing brominated flame retardants,

— asbestos waste and components which contain asbestos,

— cathode ray tubes,

— chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC),

— gas discharge lamps,

— liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps,

— external electric cables,

— components containing refractory ceramic fibres as described in Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress for the 23rd time Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances ,

— components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 of and Annex I to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation ,

— electrolyte capacitors containing substances of concern (height > 25 mm, diameter > 25 mm or proportionately similar volume).

These substances, mixtures and components shall be disposed of or recovered in compliance with Directive 2008/98/EC.

2. The following components of WEEE that is separately collected have to be treated as indicated:

— cathode ray tubes: the fluorescent coating has to be removed,

— equipment containing gases that are ozone depleting or have a global warming potential (GWP) above 15, such as those contained in foams and refrigeration circuits: the gases must be properly extracted and properly treated. Ozone-depleting gases must be treated in accordance with Regulation (EC) No 1005/2009,

— gas discharge lamps: the mercury shall be removed.

3. Taking into account environmental considerations and the desirability of preparation for re-use and recycling, points 1 and 2 shall be applied in such a way that environmentally-sound preparation for re-use and recycling of components or whole appliances is not hindered.

10. Recommendations for WEEE Directive Compliance

— In order to avoid the product not meeting the reuse/recycling/recovery targets regulated under the WEEE Directive and the regulations of EU countries, the applicant company should, when selecting material and components design, consider they can be easy to reuse and recycle. This consideration will lessen the impact of the required international environmental directives and also improve the product's competitiveness.

— It is recommended that the applicant company, when designing new product, especially where components and materials have a large weight ratio, should consider using recyclable materials in order to increase the product's reuse/recycling/recover ratio.

— The product should apply to the RoHS Directive (Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronics equipment). The hazardous substance specification in the Directive should be controlled in the homogenous material of this product.

— If a product has changed its product design, or materials or components employed, then the product should be reassessed and retested in accordance with the WEEE Directive for reuse/recycling/recovery assessment and RoHS for restricted/banned substances requirements.

** The End***