

Test Report

No.: 70.452.23.11996.01

Date: 2023-05-12

Applicant: QUANZHOU UNICO BABY PRODUCTS CO.,LTD
Address: NO 8 LIANGXING ROAD XINTANG AREA JINJAING CITY, FUJIAN
Product Name: Baby wrap
Model No.: X-wrap BW001
Claimed suitable children weight: 0~12 months and up to 15kg
Receipt Date of Sample: 2023-05-04
Date of Testing: 2023-05-04 to 2023-05-12
Date of Further Information: 2023-05-11
Sample Submitted: The sample(s) was (were) submitted by applicant and identified.
Test Result: Refer to the data listed in following pages

Test Item

1. CEN/TR 16512:2015 — Child use and care articles — Guidelines for the safety of children's slings— Excluding clause 10.

Conclusion

See result 1

- Remarks
1. MDL = Method Detection Limit
 2. ND = Not Detected (<MDL)
 3. <= Less than
 4. 1 mg/kg = 1 ppm = 0.0001%

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch
Testing Center
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Note:



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Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.


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Description of Tested Subject:

Sample Receiving Info		Sample Description	
Sample received on: 2023-05-04, Complete test sample 1pc.		Overall weight (g):	375
Sample Photos			
			
Front view		Bottom view	

Sample	Description	Photo
001	Black fabric	

Test Result(s):

1. CEN/TR 16512:2015 — Child use and care articles — Guidelines for the safety of children's slings— Excluding clause 10.

Clause	Requirement	Result	Verdict
3	<p>Chemical hazards</p> <p>Harmful toxic chemicals can enter a child’s body by ingestion and inhalation. Information detailing chemical hazards and their risk to young children can be found in CEN/TR 13387:2004, Clause 2.</p> <p>The chemical hazards and risks for a sling are very similar to those of a soft carrier. Subclause A.1.1 states the requirements given in EN 13209–2, which are used to address the hazards related to the ingestion of harmful chemicals by a child. Subclause A.1.2 references the test method which is used to determine the toxic content of these chemicals.</p> <p>EN 13209-2 does not address the hazard of inhalation of formaldehyde. As slings may envelop the child, the level of formaldehyde in the materials used should be controlled. Subclause A.1.3 references the standard which details the requirements and test methods for the assessment of the level of formaldehyde.</p>	See annex A and remark 1	P
4	<p>Thermal hazards</p> <p>Thermal hazards include hazards associated with flammability, the burning characteristics of materials and overheating (hyperthermia) or exposure of a child to very low temperatures (hypothermia).</p> <p>As slings may be used by the carer in and around the home, possibly near a naked flame, the flammability of the materials used in slings and their burning characteristics should be controlled. Subclause A.2.1 gives the requirements for the rate of spread of the flame and references the standard which details the test method.</p> <p>Materials with a surface pile may be subject to surface flash which could occur if cigarette ash or a spark lands on the sling. Subclause A.2.2 references the standard which details the requirements and test methods to assess surface flash.</p> <p>Overheating or hyperthermia, is a rise in the child’s core temperature. This could occur if the child becomes too hot particularly in a sling which encompasses the child’s body. Consideration should be given to the type of material used for the sling and to the product information which should alert the carer to the potential hazard of the child becoming too hot.</p> <p>The lowering of the child’s body temperature, hypothermia, is less likely to be a hazard.</p>	See annex A and remark 2	P
5	<p>Choking and ingestion hazards</p> <p>Both choking and ingestion hazards can occur if a child puts small objects into their mouth and either attempts to swallow them or actually swallows them.</p> <p>Choking occurs when a child’s internal airways become blocked and their breathing is impeded. This is a serious hazard as air cannot pass into a child’s lungs and irreversible brain damage can occur.</p>	Complied	P

Clause	Requirement	Result	Verdict
	<p>Ingestion of small objects which pass into the child’s stomach can cause internal blockages.</p> <p>Where possible it is preferable to avoid the use of small objects attached to the sling. If however small objects are used, they should be firmly attached to the product and there should be no possibility of them detaching and/or breaking into small pieces.</p> <p>Choking and ingestion hazards have been addressed for soft carriers. Clause A.3 gives the requirements and test methods detailed in EN 13209–2 which are used to address these hazards.</p>		
6	<p>Entrapment hazards for fingers in mesh</p> <p>If a child’s finger becomes stuck in an opening, the flow of blood to the finger may be reduced. Slings should be designed to eliminate openings in mesh where fingers could be trapped.</p> <p>Clause A.4 gives the requirements and test method to address the hazards associated with the entrapment of a child’s finger in mesh.</p>	Complied	P
7	<p>Entanglement hazards</p> <p>If a child becomes entangled in a product, strangulation can occur.</p> <p>Any cords, ribbons or similar parts should have their length limited so that they cannot encircle a child’s neck. Clause A.5 gives the requirements and test method for the determination of the safety of the length of cords</p> <p>Any loops should be sufficiently small so that they cannot pass over the child’s head. Clause A.5 gives the requirements and a test method to determine the maximum size of a loop.</p> <p>Monofilament threads made of a single thread of man-made fibre are so strong that they cannot be broken in use. If this type of thread becomes wound round a child’s finger the blood supply could be cut off. Monofilament threads should therefore not be used in the manufacture of a sling.</p> <p>Slings should not be fitted with any form of harnessing to restrain the child.</p>	Complied	P
8	<p>Suffocation hazards</p> <p>If air cannot pass into a child’s lungs, irreversible brain damage can occur. Suffocation can occur if a child’s external airways, i.e. the nose and mouth, are blocked simultaneously. This can occur if a child’s face is in contact with a material through which air cannot permeate.</p> <p>The airways can also become obstructed as a result of the position of the baby in the sling or if the child’s chin drops down onto their chest.</p> <p>For a hammock-shaped sling, there could be the potential for the child’s face to be in contact with the material of the sling, which if made of a material through which air cannot permeate could lead to a hazardous situation. It is important therefore that the material used for a hammock-shaped sling will allow air to circulate or the sling should be designed in such a way that the airways of the child can never be obstructed.</p> <p>Consideration should also be given to the permeability of the material after washing, as some materials and some detergents could block the small air</p>	Complied	P

Clause	Requirement	Result	Verdict
	spaces; it is important therefore that adequate instructions are provided to the user for any washing and cleaning so that this does not occur. Any carrying/storage bag supplied with the product with an opening greater than 360 mm should not have a drawstring. As for all child use and care articles, care should be taken in the use of plastic packaging. Clause A.6 gives the requirements for plastic packaging which are common to child use and care articles.		
9	Structural integrity It is important that no part of the sling should be weakened in use and always maintains the child securely. Clause A.7 gives the requirements and test methods for the testing of the structural integrity of slings.	See remark 3	P
10	Product information	-	N/R

Abbreviation: P = Pass; N/R = Not Requested per client.

Remarks:

1. Only partial component was conducted as per client's request; only selected tests were conducted as per client's request.
2. Only partial fabric (main black fabric) was conducted as per client's requirements.
3. Only front carry position was conducted as per client's requirements.

1.1 Annexes of CEN/TR 16512:2015.

Clause	Requirement	Result	Verdict																						
Annex A	Requirements and test methods which can be used to assess the safety of children's slings																								
A.1	Chemical hazards																								
A.1.1	General The migration of elements from materials shall not exceed the limits listed below when tested in accordance with EN 71-3. <table border="0"> <tr> <td>Element</td> <td>mg/kg</td> </tr> <tr> <td>Aluminium</td> <td>70 000</td> </tr> <tr> <td>Antimony</td> <td>560</td> </tr> <tr> <td>Arsenic</td> <td>47</td> </tr> <tr> <td>Barium</td> <td>18 750</td> </tr> <tr> <td>Boron</td> <td>15 000</td> </tr> <tr> <td>Cadmium</td> <td>17</td> </tr> <tr> <td>Chromium (III)</td> <td>460</td> </tr> <tr> <td>Chromium (VI)</td> <td>0,2</td> </tr> <tr> <td>Cobalt</td> <td>130</td> </tr> <tr> <td>Copper</td> <td>7 700</td> </tr> </table>	Element	mg/kg	Aluminium	70 000	Antimony	560	Arsenic	47	Barium	18 750	Boron	15 000	Cadmium	17	Chromium (III)	460	Chromium (VI)	0,2	Cobalt	130	Copper	7 700	See result 1.2 and remark 1	P
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Clause	Requirement	Result	Verdict
	Lead 160 Manganese 15 000 Mercury 94 Nickel 930 Selenium 460 Strontium 56 000 Tin 180 000 Organic Tin 12 Zinc 46 000		
A.1.2	Test methods for determining levels of chemicals in coatings and finishes The above limits should be checked according to the test method described in EN 71-3.		
A.1.3	Requirements and test methods for formaldehyde When tested in accordance with EN ISO 14184-1, textile components of the product shall not contain free or hydrolysed formaldehyde in excess of 30 mg/kg.	-	N/R
A.2	Thermal hazards		
A.2.1	Requirements and test method for flammability When tested in accordance with EN 71-2:2011+A1:2014, 5.4, the maximum rate of the spread of flame should not exceed 50 mm/s.	See remark 2	P
A.2.2	Requirements and test method for surface flash When tested in accordance with EN 1103, there should be no surface flash.	See result 1.3 and remark 2	P
A.3	Choking and ingestion hazards		
A.3.1	Requirements for small components Any component intended to be removable without the use of a tool should not fit wholly within the small parts cylinder. Any components not intended to be detachable but which become detached when tested in accordance with A.3.2 should not fit wholly within the small parts cylinder.	Complied	P
A.4	Entrapment hazards for fingers in mesh		
A.4.1	General There should be no openings in mesh that allow the finger probe in Figure A.3 to penetrate to the 7 mm diameter section.	Complied	P
A.5	Entanglement hazards		
A.5.1	Requirements for entanglement hazards Cords, ribbons and similar parts should have a maximum free length of 220 mm when tested in accordance with A.5.2. Where cords, ribbons and similar	Complied	P

Clause	Requirement	Result	Verdict
	<p>parts are attached to the sling either together or within 80 mm of each other any single cord should have a maximum free length of 220 mm and the combined length from one loose end to the end of another should be a maximum of 360 mm.</p> <p>Loops should have a maximum peripheral dimension of 360 mm when tested in accordance with A.5.2.</p> <p>Cords, ribbons and similar parts that are used to secure the sling on to the carer's torso are excluded from these requirements.</p>		
A.6	<p>Suffocation hazards — Requirements for packaging</p> <p>Any plastic covering used as packaging that does not fulfil the requirements of EN 71-1 shall be conspicuously marked in the official language(s) of the country where the sling is sold with the following statement:</p> <p>'TO AVOID DANGER OF SUFFOCATION, REMOVE PLASTIC COVER BEFORE USING THIS ARTICLE. THIS COVER SHALL BE DESTROYED OR KEPT AWAY FROM CHILDREN'</p> <p><i>NOTE The statement can be expressed in different words provided that they clearly convey the same information.</i></p>	-	N/A
A.7	Structural integrity		
A.7.1	Static strength		
A.7.1.1	<p>Requirements</p> <p>There should be no visible signs of damage and the sling should continue to function as intended when tested in accordance with A.7.2.</p>	See remark 3	P
A.7.2	Durability		
A.7.2.1	<p>Requirements</p> <p>When tested in accordance with A.7.2.3, the maximum slippage of any of the carer's attachment straps and any adjuster straps used to secure the child within the sling shall be 20 mm after 90 cycles.</p> <p>The fasteners of the carer's attachment system and any fastener or adjuster used to secure the child within the product shall not be released when tested in accordance with A.7.2.3.</p>	See remark 3	P

Abbreviation: P = Pass; N/A = Not Applicable; N/R = Not Requested per client.

Remarks:

1. Only partial component was conducted as per client's request.
2. Only partial fabric (main black fabric) was conducted as per client's requirements.
3. Only front carry position was conducted as per client's requirements.

1.2 Migration of certain elements

Test with reference to EN 71-3:2019+A1:2021,determination by ICP-MS.

Test Item	Limit in scraped-off toy materials [mg/kg]	MDL [mg/kg]	Result(s) [mg/kg]
			001
Soluble Aluminum	28130	5.00	22.2
Soluble Antimony	560	5.00	<5.00
Soluble Arsenic	47	5.00	<5.00
Soluble Barium	18750	5.00	<5.00
Soluble Boron	15000	5.00	<5.00
Soluble Cadmium	17	5.00	<5.00
Soluble Chromium III	460	0.04	1.06
Soluble Chromium VI	0.053	0.04	<0.04
Soluble Cobalt	130	5.00	<5.00
Soluble Copper	7700	5.00	<5.00
Soluble Lead	23	5.00	<5.00
Soluble Manganese	15000	5.00	<5.00
Soluble Mercury	94	5.00	<5.00
Soluble Nickel	930	5.00	<5.00
Soluble Selenium	460	5.00	<5.00
Soluble Strontium	56000	5.00	<5.00
Soluble Tin	180000	2.50	<2.50
Organic Tin	12	7.50	<7.50
Soluble Zinc	46000	5.00	<5.00
Conclusion			Pass

1.3 Textiles-fabrics for apparel-Detailed procedure to determine the burning behavior

Test surface: Face

EN 1103: 2005

Orientation of burner: Surface ignition

Flame application time: 10 second

Gas used: Propane

Condition: The specimens and the filter paper shall be conditioned for at least 24h in a standard atmosphere of 23±2°C and 50±5% relative humidity.

Washing procedure:

EN ISO 6330:2000;

Washing program No:3M; Using front load, horizontal drum type machine: Machine wash at 30°C with 2 kg total dry mass (knitted polyester + ballast + specimen) and 77%ECE(A) + 20%sodium perborate + 3%TAED, flat dry.

As received						
Sample (001)	Lengthwise			Widthwise		
Specimen	1	2	3	1	2	3
Surface flash	N	N	N	N	N	N
Flaming debris	Y	Y	Y	Y	Y	Y
Filter paper ignition	Y	Y	Y	Y	Y	Y
T1 (s)	NS	NS	NS	NS	NS	NS
T3 (s)	NS	NS	NS	NS	NS	NS
T3-T1 (s)	/	/	/	/	/	/
Mean flame spread time (T3-T1) (s)	/			/		
Flame spread rate (T3-T1) (mm/s)	/	/	/	/	/	/
Afterflame time (s)	10.1	10.5	10.8	10.0	10.5	10.2
Afterglow time (s)	/	/	/	/	/	/

After 1 Wash						
Sample (001)	Lengthwise			Widthwise		
Specimen	1	2	3	1	2	3
Surface flash	N	N	N	N	N	N
Flaming debris	Y	Y	Y	Y	Y	Y
Filter paper ignition	Y	Y	Y	Y	Y	Y
T1 (s)	NS	NS	NS	NS	NS	NS
T3 (s)	NS	NS	NS	NS	NS	NS
T3-T1 (s)	/	/	/	/	/	/
Mean flame spread time (T3-T1) (s)	/			/		
Flame spread rate (T3-T1) (mm/s)	/	/	/	/	/	/
Afterflame time (s)	10.9	10.5	10.3	10.0	10.4	10.0
Afterglow time (s)	/	/	/	/	/	/

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Remark: T1: From the start of the application of the igniting flame to the severance of the first marker thread (220mm).
T3: From the start of the application of the igniting flame to the severance of the third marker thread (520mm).
T3-T1: From the first marker thread to the third marker thread (300mm)
NS: Trip thread not severed
Y: Yes
N: No
N/A: Not applicable

-End of Test Report-

