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Client: HAPPY ARTS&CRAFTS(NINGBO)CO., LTD.
HAPE INTERNATIONAL(NINGBO) LTD.
9-27Nanhai Road, Dagang industrial City,Beilun,Ningbo,China

Test item(s): Toy

Identification/ Refer to detail list

Model No(s):

Sample Receiving date: 2018-01-29

Testing Period: 2018-01-29 - 2018-02-06

Test Specification:

Test Specification:	Test result:
1. EN 71 - 1 : 2014 Mechanical and physical properties	PASS
2. 2009/48/EC CE marking	PASS
3. 2009/48/EC Labeling Requirement (Importer/ Manufacturer Mark, Product Identification, Washing/ Cleaning instruction)	Please refer to test page
4. EN 71 - 2 : 2011+A1 :2014 Flammability	PASS
5. EN71-3:2013+A2:2017 Migration of 19 Elements - with reference to 2009/48/EC and its amendments 2012/7/EU	PASS

Other information:

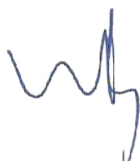
Packaging provided: Yes

The provided age grade of the item: (M001)Over 6 months;(M002)For all ages;(M008)Over 12 months;(M003-M007,M009)Over 24 months.

The appropriate age grade of the item: (M001,M002)For all ages;(M008)Over 10 months;(M003-M007,M009)Over 18 months.

The item was tested: (M001,M002)For all ages;(M008)Over 10 months;(M003-M007,M009)Over 18 months.

For and on behalf of
TÜV Rheinland (Shanghai) Co., Ltd.



2018-02-06 Wice Wang / Department Manager

Date *Name/Position*

*Test result is drawn according to the kind and extent of tests performed.
This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.*

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Item NO.	Item Description EN	Age
E1801,E1801A	Double Bubble	6M+
E1902,E1902A	Wilbur Wall Panel™	all ages
E1811,E1811A	Playground Pizzaz	24M+
E1802,E1802A (E8154,E8154A)	Discovery Box	24M+
E1803,E1803A	Original Supermaze	24M+
E1900,E1900A	Tunnel Mountain™	24M+
E1805,E1805A	Ocean Adventure Knee High Table	24M+
E1810,E1810A	Country Critters Play Cube	12M+
E1907,E1907A	Coral Reef Activity Center	24M+

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Material List:

Item: Refer to detail list

Material No.	Material	Color	Location	Remark
M001	Whole Product	Multi-color	E1801,E1801A	
M002	Whole Product	Multi-color	E1902,E1902A	
M003	Whole Product	Multi-color	E1811,E1811A	
M004	Whole Product	Multi-color	E1802,E1802A(E8154,E8154A)	
M005	Whole Product	Multi-color	E1803,E1803A	
M006	Whole Product	Multi-color	E1900,E1900A	
M007	Whole Product	Multi-color	E1805,E1805A	
M008	Whole Product	Multi-color	E1810,E1810A	
M009	Whole Product	Multi-color	E1907,E1907A	
M010	Coating	Lt.green	On metal	
M011	Plastic	Lt.green	PE hoop, E1802/E1801	
M012	Plastic	Reflected	PC Mirror, E1802/E1907	
M013	Plastic + coating	Transparent + multi-color	PMMA board, E1802	
M014	Plastic	Black	ABS nut	
M015	Coating	Magenta	On wood(<10mg)	
M016	Plastic	Dk.blue	HDPE hoop, E1811	
M017	Plastic	Lt.green	HDPE hoop, E1811	
M018	Plastic	Red	HDPE hoop, E1811	
M019	Plastic	Semi-transparent	TPE suckcup/ring, E1801/E1810	
M020	Coating	Navy	On metal	

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M021	Plastic	Red	PE hoop, E1902/E1907	
M022	Plastic	White	PA nail, E1902	
M023	Coating	Dk.purple	On wood	
M024	Coating	Dk.purple	On metal	
M025	Coating	Lt.blue	On metal	
M026	Paper + printing + adhesive	White + black	Sticker, E1810	
M027	Textile	White	String, E1810	
M028	Coating	Deep purple	On wood, E1805	
M029	Plastic	Lt.peach	PA round nail, E1907	
M030	Coating	Orange red	On wood	Refer to 0154286280/M017
M031	Coating	Red	On metal	Refer to 0154294899/M005
M032	Plastic	Yellow	ABS bead, E1811/E1900/E1801/E1902	Refer to 0154287741/M015
M033	Coating	Orange	On metal	Refer to 0154288510/M004
M034	Coating	Blue	On metal	Refer to 0154305986/M006
M035	Coating	Yellow	On metal	Refer to 0154294899/M007
M036	Plastic	Lt.green	ABS hoop/bead, E1811/E1902/E1900/E1907	Refer to 0154287741/M013
M037	Plastic	Orange	ABS hoop/bead/nail, E1811/E1902/E1900	Refer to 0154305986/M010
M038	Plastic	Dk.blue	ABS hoop/bead, E1811/E1902/E1900	Refer to 0154288510/M003
M039	Plastic	Red	ABS hoop/bead, E1811/E1902/E1900/E1907	Refer to 0154287741/M014
M040	Coating	Lt.purple	On wood	Refer to 0154289412/M020
M041	Textile	White	Elastic string, E1810	Refer to 0154289412/M006

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M042	Rubber	White	Elastic string(rubber core), E1810	Refer to 0154289412/M007
M043	Wood	Nature	Solid wood	Refer to 0154305986/M004
M044	Wood	Nature	Plywood	Refer to 0154286280/M007
M045	Wood	Nature	MDF	Refer to 0154286277/M024
M046	Coating	Red	On wood	Refer to 0154286277/M004
M047	Coating	Orange	On wood	Refer to 0154286277/M008
M048	Coating	Yellow	On wood	Refer to 0154286277/M007
M049	Coating	Yellow green	On wood	Refer to 0154287741/M005
M050	Coating	Lt.green	On wood	Refer to 0154286277/M009
M051	Coating	Dk.green	On wood	Refer to 0154286280/M015
M052	Coating	Lt.blue	On wood	Refer to 0154286277/M012
M053	Coating	Dk.blue	On wood	Refer to 0154286277/M011
M054	Coating	Brown	On wood	Refer to 0154286280/M018
M055	Coating	Transparent	On wood	Refer to 0154286277/M003
M056	Coating	Grey	On wood	Refer to 0154286280/M020
M057	Coating	White	On wood	Refer to 0154286277/M006
M058	Coating	Black	On wood	Refer to 0154286280/M023
M059	Plastic	Cream	PC nail, E1810/E1802	Refer to 0154306021/M034
M060	Plastic	Red	PA head, E1802	Refer to 0154288509/M012

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M061	Plastic	Transparent	PMMA board, E1907	
M062	Plastic	Black	TPE tyre, E1907	Refer to 0154290313/M040

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1. EN71 - 1:2014 Mechanical and physical properties
Test result:

	Test No :	T001
	Material No:	M001-M009
4. General requirements		
4.1 Material cleanliness		PASS
4.2 Assembly		PASS*1
4.7 Edges		PASS
4.8 Points and metallic wires		PASS
4.16 Heavy immobile toys		PASS*1
4.20 Acoustics		PASS*5
5. Toys intended for children under 36 months		
5.1 General requirements		PASS
5.4 Cords, chains and electrical cables in toys		PASS*2
5.10 Small balls		PASS*2
5.13 Suction cups		PASS*3
6. Packaging		PASS*4

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request.

Remark:

- *1 This clause is only applicable to M002/M007/M008/M009
- *2 This clause is only applicable to M008
- *3 This clause is only applicable to M001
- *4 This clause is only applicable to M009
- *5 This clause is only applicable to M008/M009

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2. 2009/48/EC CE Marking
Test result:

	Test No:	T001
	Material No:	M001-M009
CE-marking		PASS

3. 2009/48/EC Labeling Requirement (Importer/ Manufacturer Mark, Product Identification, Washing/ Cleaning instruction)
Test result:

	Test No:	T001
	Material No:	M001-M009
Importer/ Manufacturer Mark (European Company name and address)+		Present on product and package
Product Identification - type, batch, serial or model number+		Present on product and package

Remark:

+ These labeling shall be indicated on the toy, or where that is not possible, on its packaging or in a documents accompanying the toys.

The correct adherence to all requirements according to directive 2009/48/EC in regards to the marking (name or trademark and contact address of the manufacturer respectively the marking for identification [type, batch, model or serial no.]) of the toy can only be confirmed by the manufacturer, his delegate or the person who brings it onto the market. The marked article were assessed, however, they can not be evaluated in the frame of this test.

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4. EN 71 - 2: 2011+A1 :2014 Flammability**Test result:**

	Test No:	T001
	Material No:	M001-M009
4.1 General		PASS

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request.

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5. EN71-3:2013+A2:2017 Migration of 19 Elements - with reference to 2009/48/EC and its amendments

Test Method: with reference to EN71-3:2013+A2:2017, for inorganic elements, analyzed by ICP-OES or ICP-MS.

3) For scraped-off toy materials:

				Test No.	T001	T002	T003
				Material No.	M010	M011	M012
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	559	n.d.	14.5	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	494	n.d.	n.d.	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	-	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	11.0(*2)	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	n.d.(*2)	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	7.3	4.8	
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	387	n.d.	n.d.	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	5.0	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	29.4	n.d.	n.d.	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	526	n.d.	n.d.	

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				Test No.	T004	T005	T006
				Material No.	M013	M014	M016
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	n.d.	n.d.	n.d.	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	n.d.	n.d.	n.d.	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	4.7	2.8	n.d.	
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	4.1	n.d.	n.d.	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	4.2	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	n.d.	n.d.	n.d.	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	n.d.	n.d.	n.d.	

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				Test No.	T007	T008	T009
				Material No.	M017	M018	M019
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18,750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	n.d.
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	n.d.
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	-
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	-
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	n.d.
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	n.d.
Lead (Pb) ¢	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15,000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56,000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	-	-	-	-
Zinc (Zn)	mg/kg	10	46,000	n.d.	n.d.	n.d.	n.d.

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				Test No.	T010	T011	T012
				Material No.	M020	M021	M022
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	340	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18,750	290	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	n.d.
Chromium (Cr)	mg/kg	0.15	-	-	n.d.	n.d.	n.d.
Chromium III (CrIII)§	mg/kg	0.15	460	6.6(*2)	-	-	-
Chromium VI (CrVI)§	mg/kg	0.15	0.2	n.d.(*2)	-	-	-
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	n.d.
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	n.d.
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15,000	473	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56,000	29.2	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	-	-	-	-
Zinc (Zn)	mg/kg	10	46,000	544	n.d.	n.d.	n.d.

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				Test No.	T013	T014	T015
				Material No.	M023	M024	M025
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	252	210	110	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	16.7	124	425	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	-	-	
Chromium III (CrIII)§	mg/kg	0.15	460	-	35.7(*2)	10.4(*2)	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	n.d.(2)	n.d.(*2)	
Cobalt (Co)	mg/kg	2.5	130	3.5	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	
Lead (Pb) ¢	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	62.1	197	348	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	6.7	29.4	5.5	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	2.8	17.8	23.6	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	3700	521	885	

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				Test No.	T016	T017	T018
				Material No.	M026(*1)	M027(*1)	M028(*1)
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	28.7	n.d.	72.6	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	n.d.	n.d.	61.2	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	6.2	
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	4.9	n.d.	23.3	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	14.9	n.d.	8.8	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	n.d.	n.d.	289	

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				Test No.	T019	T020	T021
				Material No.	M029	M030	M031
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	n.d.	119	25.6	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	2.6	3.6	123	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	-	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	3.4(*2)	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	n.d.(*2)	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	6.2	
Lead (Pb) ¢	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	n.d.	3.4	34.6	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	4.0	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	n.d.	4.2	14.3	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	11.7	75.5	170	

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				Test No.	T022	T023	T024
				Material No.	M032	M033	M034
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	n.d.	n.d.	95.6	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	n.d.	32.8	49.3	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	-	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	2.5(*2)	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	n.d.(*2)	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	
Lead (Pb) ¢	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	n.d.	6.8	201	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	2.6	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	n.d.	6.4	29.1	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	n.d.	n.d.	3040	

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				Test No.	T025	T026	T027
				Material No.	M035	M036	M037
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	34.8	23.3	n.d.	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18,750	208	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	n.d.
Chromium (Cr)	mg/kg	0.15	-	-	n.d.	n.d.	n.d.
Chromium III (CrIII)§	mg/kg	0.15	460	4.7(*2)	-	-	-
Chromium VI (CrVI)§	mg/kg	0.15	0.2	n.d.(*2)	-	-	-
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	n.d.
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	n.d.
Lead (Pb) ‡	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15,000	31.0	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56,000	17.8	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	-	-	-	-
Zinc (Zn)	mg/kg	10	46,000	47.9	10.5	n.d.	n.d.

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				Test No.	T028	T029	T030
				Material No.	M038	M039	M040(*1)
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	n.d.	47.3	71.1	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	n.d.	n.d.	n.d.	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	n.d.	n.d.	5.5	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	n.d.	n.d.	n.d.	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	n.d.	n.d.	n.d.	

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				Test No.	T031	T032	T033
				Material No.	M041(*1)	M042(*1)	M043
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18,750	n.d.	n.d.	n.d.	7.5
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	n.d.
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	n.d.
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	-
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	-
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	n.d.
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	n.d.
Lead (Pb) ¢	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15,000	n.d.	n.d.	n.d.	120
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56,000	n.d.	n.d.	n.d.	3.3
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	-	-	-	-
Zinc (Zn)	mg/kg	10	46,000	51.3	447	75.6	75.6

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				Test No.	T034	T035	T036
				Material No.	M044	M045	M046
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	54.5	n.d.	168	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	17.8	6.7	n.d.	
Boron (B)	mg/kg	10	15,000	n.d.	46.3	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	
Lead (Pb) ‡	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	114	8.9	2.8	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	6.5	19.1	12.7	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	n.d.	20.6	223	

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				Test No.	T037	T038	T039
				Material No.	M047	M048	M049
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70,000	254	260	134	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	n.d.	5.7	3.5	
Boron (B)	mg/kg	10	15,000	14.0	23.6	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	
Lead (Pb) ¢	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	3.9	5.8	6.1	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	22.5	20.0	n.d.	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	239	361	246	

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				Test No.	T040	T041	T042
				Material No.	M050	M051(*1)	M052
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	191	78.1	81.1	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	5.6	3.0	5.0	
Boron (B)	mg/kg	10	15,000	11.2	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	3.3	
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	3.5	n.d.	58.2	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	17.2	n.d.	4.3	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	219	22.9	33.7	

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				Test No.	T043	T044	T045
				Material No.	M053	M054(*1)	M055
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	278	77.9	n.d.	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18,750	2.6	2.7	n.d.	n.d.
Boron (B)	mg/kg	10	15,000	13.5	n.d.	n.d.	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	n.d.
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	n.d.
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	-
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	-
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	n.d.
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	n.d.
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15,000	5.1	n.d.	n.d.	2.7
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56,000	20.4	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	-	-	-	-
Zinc (Zn)	mg/kg	10	46,000	269	56.2	n.d.	n.d.

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				Test No.	T046	T047	T048
				Material No.	M056	M057	M058(*1)
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	279	240	200	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18,750	3.4	2.8	n.d.	
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15,000	5.3	15.2	2.9	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56,000	13.3	36.2	2.8	
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46,000	958	1550	2170	

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				Test No.	T049	T050	T051
				Material No.	M059	M060	M061
Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70,000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18,750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15,000	n.d.	n.d.	n.d.	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.	n.d.
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	n.d.
Chromium III (CrIII)§	mg/kg	0.15	460	-	-	-	-
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-	-	-	-
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	n.d.
Copper (Cu)	mg/kg	2.5	7,700	n.d.	n.d.	n.d.	n.d.
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15,000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56,000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180,000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	-	-	-	-
Zinc (Zn)	mg/kg	10	46,000	25.3	77.4	n.d.	n.d.

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			Test No.	T052
			Material No.	M062
Parameter	Unit	RL	Regulatory Requirement	Result
Aluminium (Al)	mg/kg	10	70,000	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.
Arsenic (As)	mg/kg	5	47	n.d.
Barium (Ba)	mg/kg	2.5	18,750	n.d.
Boron (B)	mg/kg	10	15,000	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.
Chromium (Cr)	mg/kg	0.15	-	n.d.
Chromium III (CrIII)§	mg/kg	0.15	460	-
Chromium VI (CrVI)§	mg/kg	0.15	0.2	-
Cobalt (Co)	mg/kg	2.5	130	n.d.
Copper (Cu)	mg/kg	2.5	7,700	n.d.
Lead (Pb) ¢	mg/kg	2.5	160	n.d.
Manganese (Mn)	mg/kg	2.5	15,000	n.d.
Mercury (Hg)	mg/kg	2.5	94	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.
Selenium (Se)	mg/kg	10	460	n.d.
Strontium (Sr)	mg/kg	2.5	56,000	n.d.
Tin (Sn)	mg/kg	1.0	180,000	n.d.
Organic Tin^	mg/kg	1.0	12	-
Zinc (Zn)	mg/kg	10	46,000	n.d.

- Abbreviation:**
- n.d. = Not Detected (< RL)
 - RL = Reporting Limit
 - mg/kg denotes milligram per kilogram
 - § denotes Cr(III) and Cr(VI) are not necessary to be determined when the Combined Chromium concentration value is less than the requirement
 - ^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.9 mg/kg) or the components were confirmed to be pure metal

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Remark:

- ⌄ According to Council Directive (EU) 2017/738, the amendment of Directive 2009/48/EC, migration limits for lead in i) dry, brittle, powder-like or pliable toy materials; ii) liquid or sticky toy materials; and iii) scraped-off toy materials will be revised to 2.0 mg/kg, 0.5 mg/kg and 23 mg/kg, respectively. Effective from 28 October 2018.
- *1 According to EN71- 3:2013+A2:2017, the weight of test portion was less than 100mg, but greater than 10mg. The result was calculated as if 100mg of the samples were available.
- *2 Confirmation of Cr(VI) content has been performed with reference to EN71- 3:2013+A2:2017, Annex F (analyzed by LC-ICP-MS or IC-ICP-MS/MS). Cr(III) content was confirmed by calculation.
- *3 According to EN71- 3:2013+A2:2017, the weight of test portion M015 available was less than 10mg, the test for soluble heavy metal content was not performed.

Sample Photos



E1801,E1801A



E1802,E1802A(E8154,E8154A)



E1803,E1803A



E1805,E1805A



E1810,E1810A



E1811,E1811A

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Sample Photos



E1900,E1900A



E1902,E1902A



E1907,E1907A

- END -

General Terms and Conditions of Business of TÜV Rheinland in Greater China

1. Scope

- 1.1 These General Terms and Conditions of Business of TÜV Rheinland in Greater China is made between the client and one or more member entities of TÜV Rheinland in Greater China as applicable as the case may be ("TÜV Rheinland").
- 1.2 The following terms and conditions apply to agreed services including consultancy services, information, deliveries and similar services as well as ancillary services and other secondary obligations provided within the scope of contract performance.
- 1.3 Any standard terms and conditions of the client of any nature shall not apply and shall hereby be expressly excluded. No standard contractual terms and conditions of the client shall form part of the contract even if TÜV Rheinland does not explicitly object to them.

2. Quotations

- Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.

3. Coming into effect and duration of contracts

- 3.1 The contract shall come into effect for the agreed terms upon the quotation letter of TÜV Rheinland or a separate contractual document being signed by both contracting parties, or upon the works requested by the client being carried out by TÜV Rheinland. If the client instructs TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland is, in its sole discretion, entitled to accept the order by giving written notice of such acceptance (including notice sent via electronic means) or by performing the requested services.
- 3.2 The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term agreed in the contract.
- 3.3 If the contract provides for an extension of the contract term, the contract term will be extended by the term provided for in the contract unless terminated in writing by either party with a six-week notice prior to the end of the contractual term.

4. Scope of services

- 4.1 The scope of the services shall be decided solely by a unanimous declaration issued by both parties. If no such declaration exists, then the written confirmation of order by TÜV Rheinland shall be decisive.
- 4.2 The agreed services shall be performed in compliance with the regulations in force at the time the contract is entered into.
- 4.3 TÜV Rheinland is entitled to determine, in its sole discretion, the method and nature of the assessment unless otherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.
- 4.4 On execution of the work there shall be no simultaneous assumption of any guarantee of the correctness (proper quality) and working order of either tested or examined parts nor of the installation as a whole and its upstream and/or downstream processes, organisations, use and application in accordance with regulations, nor of the systems on which the installation is based. In particular, TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, nor for their use and application in accordance with regulations unless these questions are expressly covered by the contract.
- 4.5 In the case of inspection work, TÜV Rheinland shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.

5. Performance periods/dates

- 5.1 The contractually agreed periods/dates of performance are based on estimates of the work involved which are prepared in line with the details provided by the client. They shall only be binding if being confirmed as binding by TÜV Rheinland in writing.
- 5.2 If binding periods of performance have been agreed, these periods shall not commence until the client has submitted all required documents to TÜV Rheinland.
- 5.3 Articles 5.1 and 5.2 also apply, even without express approval by the client, to all extensions of agreed periods/dates of performance not caused by TÜV Rheinland.

6. The client's obligation to cooperate

- 6.1 The client shall guarantee that all cooperation required on its part, its agents third parties will be provided in good time and at no cost to TÜV Rheinland.
- 6.2 Design documents, supplies, auxiliary staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions.
- 6.3 The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TÜV Rheinland shall be entitled to charge extra fees for such additional expense.

7. Invoicing of work

- 7.1 If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs actually incurred. If no price is agreed in writing, invoicing shall be made in accordance with the price list of TÜV Rheinland valid at the time of performance.
- 7.2 Unless otherwise agreed, work shall be invoiced according to the progress of the work.
- 7.3 If the execution of an order extends over more than one month and the value of the contract or the agreed fixed price exceeds €2,500.00 or equivalent value in local currency, TÜV Rheinland may demand payments on account or in instalments.

8. Payment terms

- 8.1 All invoice amounts shall be due for payment without deduction on receipt of the invoice. No discounts shall be granted.
- 8.2 Payments shall be made to the bank account of TÜV Rheinland as indicated on the invoice, stating the invoice and customer numbers.
- 8.3 In cases of default of payment, TÜV Rheinland shall be entitled to claim default interest at the applicable short term loan interest rate publicly announced by a reputable commercial

bank in the country where TÜV Rheinland is located. At the same time, TÜV Rheinland reserves the right to claim further damages.

- 8.4 Should the client default in payment of the invoice despite being granted a reasonable grace period, TÜV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the contract.

8.5 The provisions set forth in article 8.4 shall also apply in cases involving returned cheques, cessation of payment, commencement of insolvency proceedings against the client's assets or cases in which the commencement of insolvency proceedings has been dismissed due to lack of assets.

- 8.6 Objections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of receipt of the invoice.

8.7 TÜV Rheinland shall be entitled to demand appropriate advance payments.

8.8 TÜV Rheinland shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have increased. In this case, TÜV Rheinland shall notify the client in writing of the rise in fees. This notification shall be issued one month prior to the date on which the rise in fees shall come into effect (period of notice of changes in fees). If the rise in fees remains under 5% per contractual year, the client shall not have the right to terminate the contract. If the rise in fees exceeds 5% per contractual year, the client shall be entitled to terminate the contract by the end of the period of notice of changes in fees. If the contract is not terminated, the changed fees shall be deemed to have been agreed upon by the time of the expiry of the notice period.

8.9 Only legally established and undisputed claims may be offset against claims by TÜV Rheinland.

9. Acceptance

- 9.1 Any part of the work ordered which is complete in itself may be presented by TÜV Rheinland for acceptance as an instalment. The client shall be obliged to accept it immediately.
- 9.2 If the client fails to fulfil its acceptance obligation immediately, acceptance shall be deemed to have taken place 4 calendar weeks after completion of the work provided that TÜV Rheinland has specifically made the client aware of the aforementioned deadline upon completion of the work.

10. Confidentiality

10.1 For the purpose of these terms and conditions, "confidential information" means all information, documents, images, drawings, know-how, data, samples and project documentation which one party (the "disclosing party") hands over, transfers or otherwise discloses to the other party (the "receiving party"). Confidential information also includes paper copies and electronic copies of such information.

10.2 The disclosing party shall mark all confidential information disclosed in written form as confidential before passing it onto the receiving party. The same applies to confidential information transmitted by e-mail. If confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidentiality nature of the information within five working days of oral disclosure. Where the disclosing party fails to do so within the stipulated period, the receiving party shall not take any confidentiality obligations hereunder towards such information.

10.3 All confidential information which the disclosing party transmits or otherwise discloses to the receiving party during performance of work by TÜV Rheinland:

- a) may only be used by the receiving party for the purposes of performing the contract, unless expressly otherwise agreed in writing by the disclosing party;
- b) may not be copied, distributed, published or otherwise disclosed by the receiving party, unless this is necessary for fulfilling the purpose of the contract or TÜV Rheinland is required to pass on confidential information, inspection reports or documentation to the government authorities, judicial court, accreditation bodies or third parties that are involved in the performance of the contract;

c) must be treated by the receiving party with the same level of confidentiality as the receiving party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which is reasonably required.

10.4 The receiving party may disclose any confidential information received from the disclosing party only to those of its employees who need this information to perform the services required for the contract. The receiving party undertakes to oblige these employees to observe the same level of secrecy as set forth in this confidentiality clause.

10.5 Information for which the receiving party can furnish proof that:

- a) it was generally known at the time of disclosure or has become general knowledge without violation of this confidentiality clause by the receiving party; or
- b) it was disclosed to the receiving party by a third party entitled to disclose this information; or
- c) the receiving party already possessed this information prior to disclosure by the disclosing party; or
- d) the receiving party developed it itself, irrespective of disclosure by the disclosing party, shall not be deemed to constitute "confidential information" as defined in this confidentiality clause.

10.6 All confidential information shall remain the property of the disclosing party. The receiving party hereby agrees to immediately (i) return all confidential information, including all copies, to the disclosing party, and/or (ii) on request by the disclosing party, to destroy all confidential information, including all copies, and confirm the destruction of this confidential information to the disclosing party in writing, at any time if so requested by the disclosing party but at the latest and without special request after termination or expiry of the contract. This does not extend to include reports and certificates prepared for the client solely for the purpose of fulfilling the obligations under the contract, which shall remain with the client. However, TÜV Rheinland is entitled to make file copies of such reports, certificates and confidential information that forms the basis for preparing these reports and certificates in order to evidence the correctness of its results and for general documentation purposes required by laws, regulations and the requirements of working procedures of TÜV Rheinland.

10.7 From the start of the contract and for a period of three years after termination or expiry of the contract, the receiving party shall maintain strict secrecy of all confidential information and

shall not disclose this information to any third parties or use it for itself.

11. Copyrights

11.1 TÜV Rheinland shall retain all exclusive copyrights in the expert reports, test results, calculations, presentations etc. prepared by TÜV Rheinland.

11.2 The client may only use such expert reports, test results, calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose.

11.3 The client may use test reports, test results, expert reports, etc. only complete and unshortened. Any publication or duplication for advertising purposes needs the prior written approval of TÜV Rheinland.

12. Liability of TÜV Rheinland

12.1 Irrespective of the legal basis, in the event of a breach of contractual obligations or tort, the liability of TÜV Rheinland for all damages, losses and reimbursement of expenses caused by TÜV Rheinland, its legal representatives and/or employees shall be limited to: (i) in the case of a contract with a fixed overall fee, three times the overall fee for the entire contract; (ii) in the case of a contract for annually recurring services, the agreed annual fee; (iii) in the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euro or equivalent amount in local currency; and (iv) in the case of a framework agreement that provides for the possibility of placing individual orders, three times of the fee for the individual order under which the damages or losses have occurred. Notwithstanding the above, in the event that the total and accumulated liability calculated according to the foregoing provisions exceeds 2.5 Million Euro or equivalent amount in local currency, the total and accumulated liability of TÜV Rheinland shall be only limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.

12.2 The limitation of liability according to article 12.1 above shall not apply to damages and/or losses caused by malice, intent or gross negligence on the part of TÜV Rheinland or its vicarious agents. Such limitation shall not apply to damages for a person's death, physical injury or illness.

12.3 In cases involving a fundamental breach of contract, TÜV Rheinland will be liable even where minor negligence is involved. For this purpose, a "fundamental breach" is breach of a material contractual obligation, the performance of which permits the due performance of the contract. Any claim for damages for a fundamental breach of contract shall be limited to the amount of damages reasonably foreseen as a possible consequence of such breach of contract at the time of the breach (reasonably foreseeable damages), unless any of the circumstances described in article 12.2 applies.

12.4 TÜV Rheinland shall not be liable for the acts of the personnel made available by the client to support TÜV Rheinland in the performance of its services under the contract, unless such personnel made available is regarded as vicarious agent of TÜV Rheinland. If TÜV Rheinland is not liable for the acts of the personnel made available by the client under the foregoing provision, the client shall indemnify TÜV Rheinland against any claims made by third parties arising from or in connection with such personnel's acts.

12.5 The limitation periods for claims for damages shall be based on statutory provisions.

12.6 None of the provisions of this article 12 changes the burden of proof to the disadvantage of the client.

13. Partial invalidity, written form, place of jurisdiction and dispute resolution

13.1 All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 13.1.

13.2 Should one or several of the provisions under the contract and/or these terms and conditions be or become ineffective, the contracting parties shall replace the invalid provision with a legally valid provision that comes closest to the content of the invalid provision in legal and commercial terms.

13.3 Unless otherwise stipulated in the contract, the governing law of the contract and these terms and conditions shall be chosen following the rules as below:

a) if TÜV Rheinland in question is legally registered and existing in the People's Republic of China, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China.

b) if TÜV Rheinland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Taiwan.

c) if TÜV Rheinland in question is legally registered and existing in Hong Kong, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Hong Kong.

13.4 Any dispute in connection with the contract and these terms and conditions or the execution thereof shall be settled friendly through negotiations.

Unless otherwise stipulated in the contract, if no settlement or no agreement in respect of the extension of the negotiation period can be reached within two months of the arising of the dispute, the dispute shall be submitted:

a) in the case of TÜV Rheinland in question being legally registered and existing in the People's Republic of China, to China International Economic and Trade Arbitration Commission (CIETAC) to be settled by arbitration under the Arbitration Rules of CIETAC in force when the arbitration is submitted. The arbitration shall take place in Beijing, Shanghai, Shenzhen or Chongqing as appropriately chosen by the claiming party.

b) in the case of TÜV Rheinland in question being legally registered and existing in Taiwan, to Chinese Arbitration Association Taipei Branch to be arbitrated in accordance with its then current Rules of Arbitration. The arbitration shall take place in Taipei.

c) in the case of TÜV Rheinland being legally registered and existing in Hong Kong, to Hong Kong International Arbitration Centre (HKIAC) to be settled by arbitration under the HKIAC Administered Arbitration Rules in force when the Notice of Arbitration is submitted in accordance with these rules. The arbitration shall take place in Hong Kong.

The decision of the relevant arbitration tribunal shall be final and binding on both parties. The arbitration fee shall be borne by the losing party.