



Report No.: 0164051845c 001

Client:

Test item(s): Toys

Identification/ Model No(s): R/C CARS SERIES

- W3668 W3669 W3671 W3728 W3729 W3731 W3733 W3736
- W3738 W3739 W3741 W3743 W3746 W3748 W3749 W3751
- W3753 W3756 W3758 W3759 W3761 W3763 W3766 W3768
- W3769 W3771 W3773 W3776 W3778 W3779 W3011 W3013
- W3016 W3018 W3021 W3201N W3203N W3206N W3123N2A
- W3128N2B W3661 W3663 W3666 W3673 W3676 W3678
- W3679 W3681 W3683 W3686 W3688 W3689 W3691 W3693
- W3696 W3698 W3699 W3701 W3703 W3706 W3708 W3709
- W3711 W3713 W3716 W3718 W3719 W3721 W3723 W3726
- W3829 W3831 W3808 W3809 W3819 W3820 W3833 W3836
- W3838 W3839 W3841 W3843 W3846 W3848 W3849 W3851
- W3853 W3856 W3858 W3859 W3861 W3863 W3866 W3868
- W3828 W3828S W3808S W3809S W3818S W3819S

Sample Receiving date: 2015-12-14, 2016-01-28, 2016-02-04

Testing Period: 2015-12-17 - 2016-02-16

Test Specification:

Please refer to "Test Result Summary List" on page 2 for details

Other information:

- (1) The provided age grade of the item(s) : For age of over 8 years.  
The appropriate age grade of the item(s) : For age of over 3 years.  
The item(s) was/ were tested for the age of over 3 years.

- (2) Packaging provided: Artwork

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



Candy He/  
Lab. Supervisor

Lucy Wang/  
Senior Technical Executive

2016-02-18

2016-02-18

Date

Name/Position

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.

**Test Report No.: 0164051845c 001**

Page 2 of 38

## Test Result Summary :

### *Test Specification:*

- 1 EN 71 - 1 : 2014 Mechanical and physical properties
- 2 2009/48/EC CE marking
- 3 2009/48/EC Labeling Requirement  
(Importer/ Manufacturer Mark, Product Identification, Washing/ Cleaning instruction)
- 4 EN 71 - 2:2011 + A1:2014 Flammability
- 5 EN71-3:2013+A1:2014 Migration of 19 Elements
- 6 Organic Tin content - EN71-3:2013+A1:2014

### *Test result:*

PASS (Please see remark on page 7)  
PASS  
Pls refer to result table  
  
PASS  
PASS  
PASS



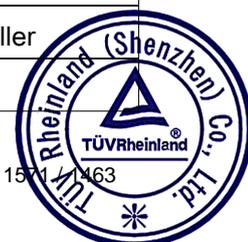
**Test Report No.: 0164051845c 001**

Page 3 of 38

**Material List:**

Item: R/C CARS SERIES  
 W3668 W3669 W3671 W3728 W3729 W3731 W3733 W3736  
 W3738 W3739 W3741 W3743 W3746 W3748 W3749 W3751  
 W3753 W3756 W3758 W3759 W3761 W3763 W3766 W3768  
 W3769 W3771 W3773 W3776 W3778 W3779 W3011 W3013  
 W3016 W3018 W3021 W3201N W3203N W3206N W3123N2A  
 W3128N2B W3661 W3663 W3666 W3673 W3676 W3678 W3679  
 W3681 W3683 W3686 W3688 W3689 W3691 W3693 W3696  
 W3698 W3699 W3701 W3703 W3706 W3708 W3709 W3711  
 W3713 W3716 W3718 W3719 W3721 W3723 W3726 W3829  
 W3831 W3808 W3809 W3819 W3820 W3833 W3836 W3838  
 W3839 W3841 W3843 W3846 W3848 W3849 W3851 W3853  
 W3856 W3858 W3859 W3861 W3863 W3866 W3868 W3828  
 W3828S W3808S W3809S W3818S W3819S

Material No.	Material	Color	Location
M001	Coating	Multi-color	Spare cover (Revell control)
M002	Coating	Multi-color	Spare cover (UT TBX)
M003	Coating	Multi-color	Spare cover (Xsprint)
M004	Coating	Multi-color	Spare cover (Hot Storm)
M005	Coating	Multi-color	Spare cover (ANT show)
M006	Coating	Multi-color	Spare cover (Demon)
M007	Coating	Multi-color	Spare cover (DTRX), logo words on stabilizer of spare cover (Storm Vulcan, MAX WM)
M009	Coating	Multi-color	Cover, logo and pattern on stabilizer (MAX Show)
M010	Coating	Multi-color	Cover (Velocity)
M011	Coating	Multi-color	Cover, logo and pattern on stabilizer (energy)
M012	Coating	Multi-color	Cover (D7)
M013	Coating	White	Words on tyre (D7)
M014	Coating	Black	Helmet (W81)
M015	Coating	White	Logo words on controller
M016	Coating	Silvery	Knob of big controller
M017	Coating	Metallic grey	knob of middle controller
M018	Plastic	Transparent	Cover



**Test Report No.: 0164051845c 001**

Page 4 of 38

M019	Plastic	White	Helmet (W81)
M020	Plastic	Black	Frame of cover (W81)
M021	Plastic	Yellowish green	Cover (W81), small and middle controller
M022	Plastic	Metallic grey	Seat (W81)
M023	Plastic	Dull metallic grey	Cover (MAX WM)
M024	Plastic	Orange red	Frame of cover (MAX WM)
M025	Plastic	Transparent grey	Light (MAX WM)
M026	Plastic	Black	Seat (MAX WM)
M027	Plastic	Black	Stabilizer (MAX WM)
M028	Plastic	Black	Stabilizer (Storm)
M029	Plastic	White	Bumper and stabilizer (MAX show)
M030	Plastic	Black	Chassis (all items), wheels (D7)
M031	Plastic	Black	Upper chassis, fixer of cover (all items), bumper (energy, Velocity, D7)
M032	Plastic	Black	Aligner lever (MAX show)
M033	Plastic	Grey	Aligner lever, pin on chassis (MAX show, energy, velocity)
M034	Plastic	Black	Switch on chassis (all items)
M035	Plastic	Black	Antenna of small controller and car (MAX show, energy)
M036	Plastic	Black	Pipe of antenna
M037	Plastic	Green	Tyre (MAX show)
M038	Plastic	Blue	Wheels (MAX show)
M039	Plastic	Yellow	Stabilizer (energy)
M040	Plastic	Black	Tyre (energy, Velocity, D7)
M041	Plastic	Dull grey	Aligner lever, pin on chassis (energy, Velocity)
M042	Plastic	Yellowish green	Wheels (energy)
M043	Plastic	Green	Wheels (Velocity)
M044	Plastic + printing	Black/ white	Heat shrinking tube on chassis (MAX show, Xsprint, Velocity)
M045	Plastic	Orange	Wheels (D7)
M046	Plastic	Red	Joint of chassis (D7)
M047	Plastic	White	Pin and aligner lever (D7)



**Test Report No.: 0164051845c 001**

Page 5 of 38

M048	Foam	Grey	Foam of fixer of battery (D7)
M049	Plastic + printing	Light green/ black	Battery cover
M050	Plastic	White	Plug of big battery
M051	Plastic	Transparent	Antenna of car (MAX show, Velocity, D7)
M052	Plastic	Red	Wire jacket of big motor (D7)
M053	Plastic	Black	Controller (all items)
M054	Plastic	Transparent red	LED light of small and middle controller
M055	Plastic	Black	Short antenna of middle controller (soft)
M056	Plastic	Black	Long antenna of middle controller (soft)
M057	Plastic	Black	Antenna of big controller (soft)
M058	Plastic	Black	Knob of big controller (soft)
M059	Plastic	Transparent black	Cover of big controller
M060	Plastic	Red	Wire jacket of big battery and small battery
M061	Plastic	Black	Wire jacket of big battery and small battery
M097	Whole Product	Multi-color	R/C CARS SERIES
M110	Coating	White	(Dry paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)
M112	Coating	Silvery	(Dry paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)
M114	Coating	Blue	(Dry paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)
M115	Coating	Deep blue	(Dry paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)
M116	Coating	Orange	(Dry paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)
M117	Coating	Red	(Dry paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)
M118	Coating	Black	(Wet paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)



<b>Test Report No.: 0164051845c 001</b>	Page 6 of 38
---	--------------

M119	Coating	Metallic grey	(Wet paint) said to be used for spare cover (Storm Vulcan), Logo words on stabilizer of spare cover (W81)
------	---------	---------------	---



**Test Report No.: 0164051845c 001**

Page 7 of 38

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

Test No:	T002
Material No:	M097
<b>4. General requirements</b>	
4.1 Material cleanliness	Pass
4.7 Edges	Pass
4.8 Points and metallic wires	Pass
4.10 Parts moving against each other	Pass
<b>7. Warnings, markings and instructions for use</b>	
7.1 General	Pass (*)
7.2 Toys not intended for children under 36 months	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.

**Remark:**

- \* The manufacturer/trader/applicant has confirmed that the above information marked (\*) will be modified onto the product itself and/or packaging of the product.
- \*\* The manufacturer/trader/applicant has provided the artwork for assessment in this test report.



**Test Report No.: 0164051845c 001**

Page 8 of 38

**#2.2009/48/EC CE Marking**
**Test result:**

	Test No:	T001
	Material No:	M097
CE-marking		Pass

**Remark:**

\*\* The manufacturer/trader/applicant has provided the artwork for assessment in this test report.

# The test is not covered by CNAS accreditation.

**#3.2009/48/EC Labeling Requirement (Importer/ Manufacturer Mark, Product Identification, Washing/ Cleaning instruction)**
**Test result:**

	Test No:	T001
	Material No:	M097
Importer/ Manufacturer Mark (European Company name and address)+		Absent
Product Identification - type, batch, serial or model number+		Present (Package)
Washing/ Cleaning instruction ^		N.A

**Remark:**

Abbreviation: N.A = Not applicable

- \* Only the English version of the marking and instructions were assessed. According to the standard, instruction and other texts required by the standard should be written in the official language(s) of the country in which the product is to be sold.
- + These labeling shall be indicated on the toy, or where that is not possible, on its packaging or in 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.

- ^ According to Directive 2009/48/EC, a toy intended for use by children under 36 months must be designed and manufactured in such a way that it can be cleaned. A textile toy shall, to this end, be washable, except if it contains a mechanism that may be damaged if soak washed. The toy shall fulfill the safety requirements also after having been cleaned in accordance with this point and the manufacturer's instructions.

\*\* The manufacturer/trader/applicant has provided the artwork for assessment in this test report.

# The test is not covered by CNAS accreditation.



**Test Report No.: 0164051845c 001** Page 9 of 38

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

**Test result:**

	Test No:	T001
	Material No:	M097
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.



**Test Report No.: 0164051845c 001**

Page 10 of 38

**5. EN71-3:2013+A1:2014 Migration of 19 Elements**

Test Method: with reference to EN71-3:2013+A1:2014, for inorganic elements, analyzed by ICP-OES or ICP-MS.

**3) For scraped-off toy materials:**

				Test No.	T001	T002	T003
				Material No.	M001	M002	M003
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	346	1.2e3	2.98e3	
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18750	169	6.1	2.7	
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	3.1(*4)	--	
Chromium (VI) (Cr (VI))§	mg/kg	0.15	0.2	--	n.d.(*4)	--	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7700	n.d.	n.d.	2.6	
Lead (Pb)	mg/kg	2.5	160	3.0	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.	
Mercury (Hg)	mg/kg	1	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	2.5	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56000	3.3	n.d.	n.d.	
Tin (Sn)	mg/kg	1.0	180000	9.8	11	16	
Organic Tin <sup>^</sup>	mg/kg	1.0	12	7.5(*3)	5.3(*3)	10.8(*3)	
Zinc (Zn)	mg/kg	10	46000	13	30	46	



**Test Report No.: 0164051845c 001**

Page 11 of 38

				Test No.	T004	T005	T006
				Material No.	M004	M005	M006
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	352	234	2.10e3	
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18750	n.d.	3.7	n.d.	
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	
Chromium (VI) (Cr (VI))§	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	7700	75	7.8	n.d.	
Lead (Pb)	mg/kg	2.5	160	n.d.	n.d.	n.d.	
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.	
Mercury (Hg)	mg/kg	1	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.	
Selenium (Se)	mg/kg	2.5	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	
Tin (Sn)	mg/kg	1.0	180000	15	11	24	
Organic Tin^	mg/kg	1.0	12	4.3(*3)	4.2(*3)	10.8(*3)	
Zinc (Zn)	mg/kg	10	46000	60	48	40	



**Test Report No.: 0164051845c 001**

Page 12 of 38

				Test No.	T007	T008	T009
				Material No.	M007	M009	M010
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	999	703	728	
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18750	n.d.	2.5	n.d.	
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	
Mercury (Hg)	mg/kg	1	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	3.2	n.d.	n.d.	
Selenium (Se)	mg/kg	2.5	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	
Tin (Sn)	mg/kg	1.0	180000	21	13	8.2	
Organic Tin^	mg/kg	1.0	12	6.9(*3)	5.6(*3)	4.7(*3)	
Zinc (Zn)	mg/kg	10	46000	47	33	27	

**Test Report No.: 0164051845c 001**

Page 13 of 38

				Test No.	T010	T011	T012
				Material No.	M011	M012	M013 (12.0mg (*1))
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70000	874	1.72e3	58	
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18750	2.7	n.d.	8.8	
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	
Chromium (VI) (Cr (VI))§	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	7700	n.d.	n.d.	3.9	
Lead (Pb)	mg/kg	2.5	160	n.d.	4.1	n.d.	
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.	
Mercury (Hg)	mg/kg	1	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	3.4	7.4	
Selenium (Se)	mg/kg	2.5	460	n.d.	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	3.2	
Tin (Sn)	mg/kg	1.0	180000	11	23	7.2	
Organic Tin^	mg/kg	1.0	12	3.6(*3)	9.9(*3)	2.4(*3)	
Zinc (Zn)	mg/kg	10	46000	30	17	199	

**Test Report No.: 0164051845c 001**

Page 14 of 38

				Test No.	T013	T014	T015
				Material No.	M014(*2)	M015(*2)	M016 (12.6mg) (*1)
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70000	--	--	9.91e3	
Antimony (Sb)	mg/kg	1	560	--	--	n.d.	
Arsenic (As)	mg/kg	1	47	--	--	n.d.	
Barium (Ba)	mg/kg	2.5	18750	--	--	n.d.	
Boron (B)	mg/kg	10	15000	--	--	n.d.	
Cadmium (Cd)	mg/kg	1	17	--	--	n.d.	
Chromium (Cr)	mg/kg	0.15	-	--	--	n.d.	
Chromium (III) (Cr (III))§	mg/kg	0.15	460	--	--	--	
Chromium (VI) (Cr (VI))§	mg/kg	0.15	0.2	--	--	--	
Cobalt (Co)	mg/kg	2.5	130	--	--	n.d.	
Copper (Cu)	mg/kg	2.5	7700	--	--	n.d.	
Lead (Pb)	mg/kg	2.5	160	--	--	3.9	
Manganese (Mn)	mg/kg	2.5	15000	--	--	n.d.	
Mercury (Hg)	mg/kg	1	94	--	--	n.d.	
Nickel (Ni)	mg/kg	2.5	930	--	--	n.d.	
Selenium (Se)	mg/kg	2.5	460	--	--	n.d.	
Strontium (Sr)	mg/kg	2.5	56000	--	--	n.d.	
Tin (Sn)	mg/kg	1.0	180000	--	--	11	
Organic Tin^	mg/kg	1.0	12	--	--	2.5(*3)	
Zinc (Zn)	mg/kg	10	46000	--	--	13	



**Test Report No.: 0164051845c 001**

Page 15 of 38

				Test No.	T016	T017	T018
				Material No.	M017(*2)	M018	M019
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70000	--	22	n.d.	
Antimony (Sb)	mg/kg	1	560	--	n.d.	n.d.	
Arsenic (As)	mg/kg	1	47	--	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18750	--	n.d.	n.d.	
Boron (B)	mg/kg	10	15000	--	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	--	n.d.	n.d.	
Chromium (Cr)	mg/kg	0.15	-	--	n.d.	n.d.	
Chromium (III) (Cr (III))§	mg/kg	0.15	460	--	--	--	
Chromium (VI) (Cr (VI))§	mg/kg	0.15	0.2	--	--	--	
Cobalt (Co)	mg/kg	2.5	130	--	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7700	--	n.d.	n.d.	
Lead (Pb)	mg/kg	2.5	160	--	5.8	n.d.	
Manganese (Mn)	mg/kg	2.5	15000	--	n.d.	n.d.	
Mercury (Hg)	mg/kg	1	94	--	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	--	n.d.	n.d.	
Selenium (Se)	mg/kg	2.5	460	--	n.d.	n.d.	
Strontium (Sr)	mg/kg	2.5	56000	--	n.d.	n.d.	
Tin (Sn)	mg/kg	1.0	180000	--	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	--	--	--	
Zinc (Zn)	mg/kg	10	46000	--	n.d.	n.d.	



**Test Report No.: 0164051845c 001**

Page 16 of 38

				Test No.	T019	T020	T021
				Material No.	M020	M021	M022
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 17 of 38

				Test No.	T022	T023	T024
				Material No.	M023	M024	M025
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 18 of 38

				Test No.	T025	T026	T027
				Material No.	M026	M027	M028
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.

**Test Report No.: 0164051845c 001**

Page 19 of 38

				Test No.	T028	T029	T030
				Material No.	M029	M030	M031
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 20 of 38

				Test No.	T031	T032	T033
				Material No.	M032	M033	M034
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	n.d.
Organic Tin <sup>^</sup>	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 21 of 38

				Test No.	T034	T035	T036
				Material No.	M035	M036	M037
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	31	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	9.9	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	1.0	n.d.	n.d.	55
Organic Tin^	mg/kg	1.0	12	--	--	--	1.9(*3)
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 22 of 38

				Test No.	T037	T038	T039
				Material No.	M038	M039	M040
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	1.0	n.d.	5.8	5.8
Organic Tin^	mg/kg	1.0	12	--	--	1.0(*3)	1.0(*3)
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 23 of 38

				Test No.	T040	T041	T042
				Material No.	M041	M042	M043
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 24 of 38

				Test No.	T043	T044	T045
				Material No.	M044	M045	M046
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	2.3	n.d.	n.d.	n.d.
Organic Tin <sup>^</sup>	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	18	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 25 of 38

				Test No.	T046	T047	T048
				Material No.	M047	M048	M049
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	18	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	1.2	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	6.5	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	n.d.	7.8	n.d.	n.d.
Lead (Pb)	mg/kg	2.5	160	n.d.	3.4	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	4.3	n.d.	n.d.
Selenium (Se)	mg/kg	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	6.5	1.7	n.d.
Organic Tin^	mg/kg	1.0	12	--	1.2(*3)	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	37	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 26 of 38

				Test No.	T049	T050	T051
				Material No.	M050	M051 (69.3mg) (*1)	M052
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	n.d.	2.8	3.6	n.d.
Lead (Pb)	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	4.2	8.4	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	n.d.(*3)	n.d.(*3)	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 27 of 38

				Test No.	T052	T053	T054
				Material No.	M053	M054 (38.2mg (*1))	M055
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	9.2
Organic Tin^	mg/kg	1.0	12	--	--	--	n.d.(*3)
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 28 of 38

				Test No.	T055	T056	T057
				Material No.	M056	M057	M058
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	94	n.d.	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	6.2	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	1.6	24	44	44
Organic Tin <sup>^</sup>	mg/kg	1.0	12	--	3.5(*3)	5.4(*3)	5.4(*3)
Zinc (Zn)	mg/kg	10	46000	13	n.d.	n.d.	n.d.

**Test Report No.: 0164051845c 001**

Page 29 of 38

				Test No.	T058	T059	T060
				Material No.	M059	M060	M061
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	--	--	--	--
Chromium (VI) (Cr (VI))§	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	7700	n.d.	3.8	6.8	6.8
Lead (Pb)	mg/kg	2.5	160	n.d.	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	1.4	n.d.	1.7	1.7
Organic Tin <sup>^</sup>	mg/kg	1.0	12	--	--	--	--
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 30 of 38

				Test No.	T061	T062	T063
				Material No.	M110	M112	M114
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	21	843	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	70	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	-	-	-	-
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	4.6	5.7	3.3	n.d.
Organic Tin <sup>^</sup>	mg/kg	1.0	12	1.6(*3)	1.9(*3)	-	-
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 31 of 38

				Test No.	T064	T065	T066
				Material No.	M115	M116	M117
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	1	560	n.d.	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	1	47	n.d.	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.	n.d.	n.d.	n.d.
Boron (B)	mg/kg	10	15000	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) (Cr (III))§	mg/kg	0.15	460	-	-	-	-
Chromium (VI) (Cr (VI))§	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	7700	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	15000	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	1	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	2.5	460	n.d.	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.	n.d.	n.d.	n.d.
Tin (Sn)	mg/kg	1.0	180000	2.8	1.2	1.6	1.6
Organic Tin^	mg/kg	1.0	12	-	-	-	-
Zinc (Zn)	mg/kg	10	46000	n.d.	n.d.	n.d.	n.d.



**Test Report No.: 0164051845c 001**

Page 32 of 38

				Test No.	T067	T068
				Material No.	M118	M119
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.		140
Antimony (Sb)	mg/kg	1	560	n.d.		n.d.
Arsenic (As)	mg/kg	1	47	n.d.		n.d.
Barium (Ba)	mg/kg	2.5	18750	n.d.		n.d.
Boron (B)	mg/kg	10	15000	n.d.		n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.		n.d.
Chromium (Cr)	mg/kg	0.15	-	n.d.		n.d.
Chromium (III) (Cr (III))§	mg/kg	0.15	460	-		-
Chromium (VI) (Cr (VI))§	mg/kg	0.15	0.2	-		-
Cobalt (Co)	mg/kg	2.5	130	n.d.		n.d.
Copper (Cu)	mg/kg	2.5	7700	n.d.		n.d.
Lead (Pb)	mg/kg	2.5	160	n.d.		n.d.
Manganese (Mn)	mg/kg	2.5	15000	n.d.		n.d.
Mercury (Hg)	mg/kg	1	94	n.d.		n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.		n.d.
Selenium (Se)	mg/kg	2.5	460	n.d.		n.d.
Strontium (Sr)	mg/kg	2.5	56000	n.d.		n.d.
Tin (Sn)	mg/kg	1.0	180000	n.d.		n.d.
Organic Tin <sup>^</sup>	mg/kg	1.0	12	-		-
Zinc (Zn)	mg/kg	10	46000	n.d.		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

**Remark:**

- \*1 According to EN71- 3:2013+A1:2014, 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 According to EN71-3:2013+A1:2014, the weight of test portion available was less than 10mg, the test for soluble heavy metal content was not performed.
- \*3 Confirmation of Organic tin content has been performed. Result can refer to subsequent page(s) for details.
- \*4 Confirmation of Cr(VI) content has been performed with reference to EN71-3:2013+A1:2014, Annex F (analyzed by LC-ICP-MS or IC-ICP-MS/MS). Cr(III) content was confirmed by calculation.



**Test Report No.: 0164051845c 001**

Page 33 of 38

**6.Organic Tin content**

Test Method: EN71-3: 2013 + A1:2014, analyzed by GC-MS

**Test Result:**

Test No.			T001	T002	T003
Material No.			M001	M002	M003
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	7.3	5.1	10.5
BuT (Butyltin cation)	mg/kg	0.2	0.2	0.2	0.3
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DOT (Diocyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	7.5	5.3	10.8
Category*	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12

Test No.			T004	T005	T006
Material No.			M004	M005	M006
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	4.3	4.2	10.8
BuT (Butyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DOT (Diocyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	4.3	4.2	10.8
Category*	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12



**Test Report No.: 0164051845c 001**

Page 34 of 38

Test No.			T007	T008	T009
Material No.			M007	M009	M010
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	6.9	5.4	4.7
BuT (Butyltin cation)	mg/kg	0.2	n.d.	0.2	n.d.
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DOT (Diocetyl tin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	6.9	5.6	4.7
Category*	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12

Test No.			T010	T011	T012
Material No.			M011	M012	M013
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	3.6	9.9	0.9
BuT (Butyltin cation)	mg/kg	0.2	n.d.	n.d.	0.5
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.	1.0
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DOT (Diocetyl tin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	3.6	9.9	2.4
Category*	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12



**Test Report No.: 0164051845c 001**

Page 35 of 38

Test No.			T013	T014	T015
Material No.			M016	M037	M040
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	2.2	1.9	0.7
BuT (Butyltin cation)	mg/kg	0.2	0.3	n.d.	n.d.
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.	0.3
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DOT (Diocetyl tin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	2.5	1.9	1.0
Category*	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12

Test No.			T016	T017	T018
Material No.			M048	M050	M051
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	1.2	n.d.	0.4
BuT (Butyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DOT (Diocetyl tin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	1.2	n.d.	0.4
Category*	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12



**Test Report No.: 0164051845c 001**

Page 36 of 38

Test No.			T019	T020	T021
Material No.			M055	M057	M058
Test Parameter	Unit	RL	Result	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	0.5	3.5	5.4
BuT (Butyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DOT (Diocetyl tin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	0.5	3.5	5.4
Category*	NA	NA	3	3	3
Limit	mg/kg	NA	12	12	12

Test No.			T022	T023
Material No.			M110	M112
Test Parameter	Unit	RL	Result	Result
MeT (Methyltin cation)	mg/kg	0.2	1.6	1.9
BuT (Butyltin cation)	mg/kg	0.2	n.d.	n.d.
DBT (Dibutyltin cation)	mg/kg	0.2	n.d.	n.d.
TBT (Tributyltin cation)	mg/kg	0.2	n.d.	n.d.
TeBT (Tetrabutyltin cation)	mg/kg	0.2	n.d.	n.d.
MOT (Monooctyltin cation)	mg/kg	0.2	n.d.	n.d.
DOT (Diocetyl tin cation)	mg/kg	0.2	n.d.	n.d.
DProT (Dipropyltin cation)	mg/kg	0.2	n.d.	n.d.
DPhT (Diphenyltin cation)	mg/kg	0.2	n.d.	n.d.
TPhT (Triphenyltin cation)	mg/kg	0.2	n.d.	n.d.
Sum of Organic tin cations	mg/kg	--	1.6	1.9
Category*	NA	NA	3	3
Limit	mg/kg	NA	12	12

Note: The weight of the organotin cations were expressed in terms of Tributyltin (TBT) cation



**Test Report No.: 0164051845c 001**

Page 37 of 38

**Abbreviation:** n.d. = not detected (< Reporting Limit)  
 RL = Reporting Limit  
 NA = Not Applicable  
 mg/kg = milligram per kilogram

**Remark:**

\* According to EN71-3:2013+A1:2014 , section 4.2, the sum of migration of organic tin shall not exceed the migration limits as below:

Category	Category I	Category II	Category III
Scope	Dry, brittle, powder-like or pliable toy materials	Liquid or sticky toy materials	Scraped-off toy materials
Limit	0.9mg/kg	0.2mg/kg	12mg/kg

Testing Laboratory accredited by CNAS according to ISO/IEC 17025. The accreditation is valid for the test methods stated in the certificate.



**Test Report No.: 0164051845c 001** Page 38 of 38

Sample Photos



- 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.