



# Test Report

**APPLICANT** : **TRUDI SPA**  
Via Europa, 28  
22060 Cabiante (CO) – Italia

**CONTACT PERSON** : Ms. Carol Hoefken

**SAMPLE DESCRIPTION** : ASSORT MINIATURE VEHICLES  
ITEM NO: 82164 (82116, 82117, 82118, 82119, 82120, 82121, 82122, 82123, 82124,  
82125, 82126, 82127, 82128, 82129)  
SUPPLIER: SKY-BLUE GIFTS & TOYS CO., LTD



(Sample photos were continued on page 2.)

**DATE OF SUBMISSION** : 2008-11-17

**TESTING PERIOD** : 2008-11-18 To 2008-12-31

**LABELED AGE GRADING** : Ages 3 and up

**AGE GRADING FOR TESTING** : Ages 3 and up as requested per applicant

TEST REQUESTED	PASS	FAIL	REMARK
EN71-1:2005 and amendment A6:2008 “Safety of toys – Part 1: Mechanical and physical properties”	X		
EN71-2:2006 and amendment A1:2007 “Safety of toys – Part 2: Flammability”	X		
EN71-3:1994 and amendments A1:2000 + AC:2002 “Safety of toys – Part 3: Migration of certain elements”	X		



Rapporto revisionato e approvato da  
(Report revised and approved by)  
*Eli Gavazza*  
Dott.ssa Eli Gavazza  
Direttore Tecnico  
Technical Director

Istituto Italiano Sicurezza dei Giocattoli  
Direttiva 88/378 Sicurezza dei Giocattoli  
Directive 88/378 on Toys Safety

Approval Laboratory Signature

Approval Laboratory Signature

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# Test Report

SAMPLE DESCRIPTION :  
(CON'T)



82116

82117

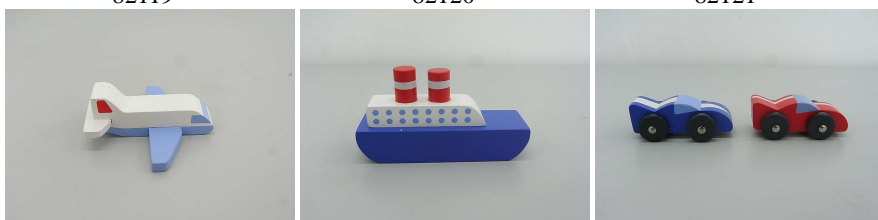
82118



82119

82120

82121



82122

82123

82124



82125

82126

82127



82128

82129



# Test Report

TEST REQUESTED	PASS	FAIL	REMARK
Resistance to Saliva and Perspiration (DIN 53160)	X		
Cadmium on plastic (EN1122) according to Directive 91/338/EEC	X		
Cadmium on Synthetic fibres (EN1122) according to Directive 91/338/EEC	X		
Definition total Lead and cadmium on paint	X		
Tests required to assess the safety of the magnetic part of the toy	X		

## EXPLANATION OF THE ABBREVIATIONS FOR EN71 PART 1 AND 2

<u>SYMBOL</u>	<u>EXPLANATION</u>	<u>SYMBOL</u>	<u>EXPLANATION</u>
F	The samples are NOT IN COMPLIANCE with the requirement of this subclause	NE	Not Evaluated
P	The samples are IN COMPLIANCE with the requirement of this subclause	NPR	Not Present
NA	Not Applicable	PR	Present
NR	Not Requested	R	Refer to the Comment Section



# Test Report

## 1. MECHANICAL & PHYSICAL PROPERTIES (EN71-1:2005 and Amendment A6:2008)

### RESULTS:

SUBCLAUSE	REQUIREMENT	RESULT
4	GENERAL REQUIREMENTS	P
4.1	Material	P
4.2	Assembly	NA
4.3	Flexible plastic sheeting	NA
4.4	Toy Bags	NA
4.5	Glass	NA
4.6	Expanding materials	NA
4.7	Edges	P
4.8	Points and metallic wires	P
4.9	Protruding parts	P
4.10	Parts moving against each other	NA
4.11	Mouth actuated toys	NA
4.12	Balloons	NA
4.13	Cords of toy kites and other flying toys	NA
4.14	Enclosures	NA
4.15	Toys intended to bear the mass of a child	NA
4.16	Heavy immobile toys	NA
4.17	Projectiles	NA
4.18	Aquatic toys	NA
4.19	Percussion caps specifically designed for use in toys and toys using percussion caps	NA
4.20	Acoustics	NA
4.21	Toys containing a non-electrical heat source	NA
4.22	Small balls	NA
5	TOYS INTENDED FOR CHILDREN UNDER 36 MONTHS	NA
6	PACKAGING	NA

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# Test Report

<u>SUBCLAUSE</u>	<u>REQUIREMENT</u>	<u>RESULT</u>
7	<b>WARNING AND INSTRUCTION FOR USE</b>	<b>P</b>
7.1	General.	P
7.2	Toys not intended for children under 36 months	P
7.3	Latex balloons	NA
7.4	Aquatic toys	NA
7.5	Functional toys	NA
7.6	Hazardous sharp functional edges and points	NA
7.7	Projectiles	NA
7.8	Imitation protective masks and helmets	NA
7.9	Toy kites	NA
7.10	Roller skates and skateboards warning on toys or packaging	NA
7.11	Toys intended to be strung across a cradle, cot, or perambulator	NA
7.12	Liquid-filled teethingers	NA
7.13	Percussion caps specifically designed for use in toys	NA
7.14	Acoustics	NA
7.15	Toy bicycles	NA
7.16	Toys intended to bear the mass of a child	NA
7.17	Toys comprising monofilament fibers	NA
7.18	Toys Scooters	NA



# Test Report

## 2. FLAMMABILITY PROPERTIES (EN71-2:2006 and Amendment A1:2007)

### RESULTS:

<u>SUBCLAUSE</u>	<u>REQUIREMENT</u>	<u>RESULT</u>
4	REQUIREMENTS	P
4.1	General	P
4.2	Toys to be worn on the head	NA
4.3	Toy disguise costumes and toys intended to be worn by child in play	NA
4.4	Toys intended to be entered by a child	NA
4.5	Soft-filled toys with a piled or textile surface	NA



# Test Report

## Parts Description:

No.	Raw Material	Position	Color
1	Coating material	Shuttle with Refueling Truck (82125)/ Machine(82129)/ School bus (82120)/ Crane with Truck (82126)	1505 orange (Transfer result from 08-3540 # 46)
2	Coating material	Shuttle with Refueling Truck (82125)/ Machine (82129)/ Crane with Truck (82126) / Machine (82129)	172 dk. orange (Transfer result from 08-3540 # 30)
3	Coating material (see note 1)	Cars (Assort 3 pcs.) (82128)	361 green
4	Coating material	Fire Engine (82119)/ F1 Cars (Ass. 2pcs.) (82124)/ Ambulance (82118)/ Machine (82129)/ Cars (Assort 3 pcs.) (82128)/ Crane with Truck (82126)/ Airplane (82122)/ Police Car (82117)/ Cruisiner (82123)	485 red (Transfer result from 07-1097 # k)
5	Coating material	Fire Engine (82119)/ F1 Cars (Ass. 2pcs.) (82124)/ Shuttle with Refueling Truck (82125)/ Ambulance (82118)/ Machine (82129)/ Helicopter yellow (82121)/ Cars (Assort 3 pcs.) (82128)/ Crane with Truck (82126)/ Airplane (82122)/ Police Car (82117)/ Cruisiner (82123)/ Cars (Assort 3 pcs.) (82128)	7451 It. blue (Transfer result from 07-1097 # g)
6	Coating material (see note 1)	Fire Engine (82119)/ Police Car (82117)/ Cruisiner (82123)	7455 blue
7	Coating material	Shuttle with Refueling Truck (82125)	Cool grey 11 7451 It. blue (Transfer result from 07-1097 # f)
8	Coating material	Shuttle with Refueling Truck (82125)/ Machine (82129)/ Helicopter yellow (82121)/ Cars (Assort 3 pcs.) (82128)	1235 orange (Transfer result from 07-2933 # 7)
9	Coating material	School bus (82120)/ Helicopter yellow (82121)/ Police Car (82117)	116 yellow (Transfer result from 08-3540 # 23)
10	Coating material	Towing Truck with cars (82127)/ Machine (82129)	1375 orange (Transfer result from 08-3540 # 34)
11	Coating material	Fire Engine (82119)	7510 beige (Transfer result from 08-3540 # 45)
12	Coating material	Fire Engine (82119)/ F1 Cars (Ass. 2pcs.) (82124)/ Cruisiner (82123)	White (Transfer result from 08-3540 # 26)
13	Coating material (see note 1)	Shuttle with Refueling Truck (82125)	420 It. grey
14	Textile material	Cord (Shuttle with Refueling Truck (82125)/ Crane with Truck (82126)	White
15	Other material	Wood (All styles)	Brown
16	Polymeric material/ Textile material	Elastic band (Fire Engine)	White
17	Polymeric material	Elastic band (Fire Engine)	White
18	Textile material	Elastic band (Fire Engine)	White



# Test Report

Note 1: There were insufficient coating materials to produce the test portion of 100 mg. According to the Standard, the quantities of the elements were calculated as if 100 mg of test portion had been used. The actual weights of the specified coating material used for analysis are shown below:

3	Cars (Assort 3 pcs.) (82128) .....	31.4mg
6	Fire Engine (82119)/ Police Car (82117)/ Cruiseliners (82123) .....	33.9mg
13	Shuttle with Refueling Truck (82125) .....	35.0mg

### 3. EN71-3:1994, amendment A1:2000 +AC:2002 - Part 3: Migration of certain elements

Test equipment: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

#### RESULTS:

Parts	lead	cadmium	chromium	barium	antimony	arsenic	selenium	Mercury
1	<8	<1	<2	56	<2	<1	<3	<1
2	<8	<1	<2	32	<2	<1	<3	<1
3	<8	<1	<2	216	<2	<1	<3	<1
4	<8	<1	<2	45	<2	<1	<3	<1
5	<8	<1	<2	<10	<2	<1	<3	<1
6	<8	<1	<2	62	<2	<1	<3	<1
7	<8	<1	<2	<10	<2	<1	<3	<1
8	<8	<1	<2	408	<2	<1	<3	<1
9	<8	<1	<2	<10	<2	<1	<3	<1
10	<8	<1	<2	172	<2	<1	<3	<1
11	<8	<1	<2	179	<2	<1	<3	<1
12	<8	<1	<2	<10	<2	<1	<3	<1
13	<8	<1	<2	<10	<2	<1	<3	<1
14	<8	<1	<2	<10	<2	<1	<3	<1
15	<8	<1	<2	<10	<2	<1	<3	<1
16	<8	<1	<2	24	<2	<1	<3	<1
<b>Limit</b>	<b>90</b>	<b>75</b>	<b>60</b>	<b>1000</b>	<b>60</b>	<b>25</b>	<b>500</b>	<b>60</b>

Note:

The results expressed are in mg/kg  
 The symbol < followed by a number indicates that the concentration of the element is less than the detection limit expressed by that number.  
 The value in mg following a part indicates the part quantity used for the test. It is indicated only if the part present in the sample is less than 100 mg (See EN 71/3 - Par. 10)





## Test Report

### 4. Cadmium on plastic according to Directive 91/338/EEC

Test equipment: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

parts	single measurement 1
17	<20mg/kg
<b>Limit</b>	<b>100mg/kg</b>

### 5. Cadmium on synthetic fibre according to Directive 91/338/EEC

Test equipment: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

parts	single measurement 1
14	<20mg/kg
18	<20mg/kg
<b>Limit</b>	<b>100mg/kg</b>



# Test Report

## 6. Definition of total Content of Lead and Cadmium on paint

Method used: Inductively Coupled Argon Plasma Atomic Emission Spectrophotometer

parts	lead	cadmium
1	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
2	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
3	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
4	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
5	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
6	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
7	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
8	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
9	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
10	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
11	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
12	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
13	Not Detectable (< 20 mg/kg)	Not Detectable (< 20 mg/kg)
<b>Limit</b>	<b>Not Detectable</b>	<b>100mg/kg</b>

Note:  
The results expressed are in mg/kg  
The symbol < followed by a number indicates that the concentration of the element is less than the detection limit expressed by that number.



# Test Report

## 7. Resistance to Saliva and Sweat

Standards / Norms: DIN 53160 (German Test Method, Section 35 LMBG 82.10-1 June 1985)

parts	resistant to saliva	resistant to perspiration
1	Grade 5	Grade 5
2	Grade 5	Grade 5
3	Grade 5	Grade 5
4	Grade 5	Grade 5
5	Grade 5	Grade 5
6	Grade 5	Grade 5
7	Grade 5	Grade 5
8	Grade 5	Grade 5
9	Grade 5	Grade 5
10	Grade 5	Grade 5
11	Grade 5	Grade 5
12	Grade 5	Grade 5
13	Grade 5	Grade 5
14	Grade 5	Grade 5
18	Grade 5	Grade 5
<b>Limit</b>	<b>Resistent</b> <b>[Not less 4-5 (grey scale)]</b>	

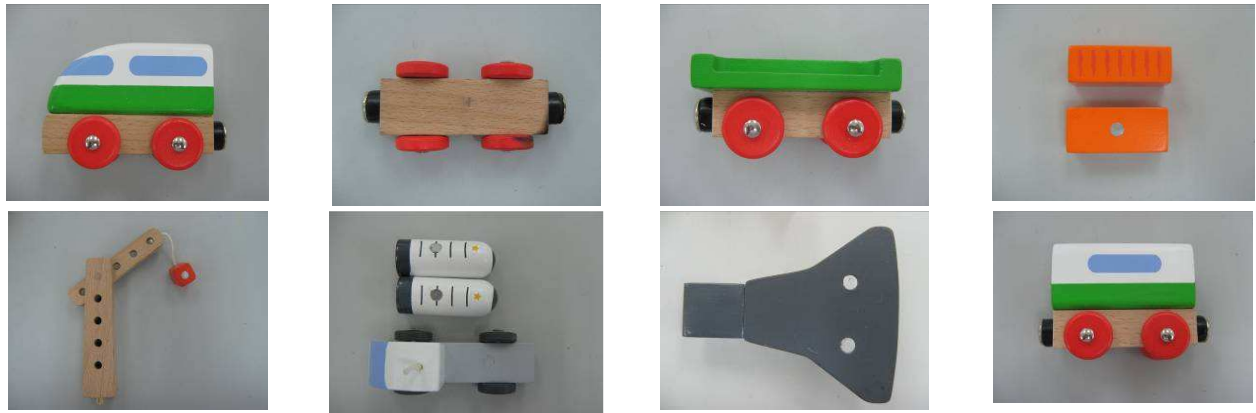


# Test Report

## 8. TESTS REQUIRED TO ASSESS THE SAFETY OF THE MAGNETIC PART OF THE TOY

### 1. Magnetic parts:

We have tested the following parts:



### 2. Toy classification:

Toy which consists of or contains embedded magnets or magnetic components (cl.3)

### 3. Abuse tests:

If the toy consists of or contains one or more embedded magnets or magnetic components which are not small parts (cl.4) it shall be tested to verify the accessibility of magnets under normal or reasonably foreseeable conditions of use by children, submitting the samples to the following tests in the listed sequence:



## Test Report

Sequence	Test	Description	Magnet detachment [yes/no/NA]
0	SOAKING TEST ( <i>only for Wooden toys, toys intended to be used in water, mouth actuated toys</i> ) (EN71-1)	According to § 8.9	NO
1	TORQUE TEST (EN71-1)	According to § 8.3	NO
2	TENSION TEST, GENERAL (EN71-1)	According to § 8.4.2.1	NO
3	TENSION TEST, SEAMS AND MATERIALS (EN71-1)	According to § 8.4.2.2	NA
4	DROP TEST (EN71-1)	According to § 8.5	NO
5	IMPACT TEST (EN71-1)	According to § 8.7	NO
6	COMPRESSION TEST (EN71-1)	According to § 8.8	NO
7	NON GRIPPABLE BUT ACCESSIBLE MAGNETS TEST	Try to detach the magnet with a 30mm nickel disk (single magnet toys) or with the most onerous magnet in the toy (multiple magnet toys) for 10 times	NO

#### 4. Measurement of the size of the loose as received magnets/magnetic components and of the detached magnets/magnetic components during the tests of cl. 3 (if any):

No magnets detach from the toy

#### 5. Warning for magnetic toys

The warning is not required (no small part magnets/magnetic components)

#### 6. Final evaluation

The toy complies with Commission decision 2008/329/EC:

toy which consists of or contains embedded magnets or magnetic components which do not detach during the abuse tests.

\*\*\*\*\*END OF TEST REPORT\*\*\*\*\*

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