

JOINT MARKET SURVEILLANCE ACTION ON TOYS

Supported by Directorate-General for Health & Consumers

Agreement No: 17.020200/08/507574

Results of the Joint Action on TOYS

April 2010



15th April 2010

TABLE OF CONTENTS

	ABBREVIATIONS TABLES	Page
1.0	Introduction	3
1.1	Title of Joint Action	
1.2	General Information	
1.3	The scope of this Report	
2.0	Primary Product Target, Purpose, Objectives & Deliverables	4
2.1	Primary Product Target	
2.2	Primary Purpose	
2.3	Strategic Objectives	
2.4	Main Deliverables of the Project	
3.0	Implementation & Activities Undertaken	6
3.1	Meetings Organised by this Joint Action	
3.2	Basic Underlying Strategy	
3.3	Criteria Adopted for the Classification of Toys	
3.4	Module I	
3.5	Module II	
3.6	Laboratory Testing for EN71-1 and EN71-3	
3.7	Concluding Remark	
4.0	Participating Organisations	13
4.1	Organisations Involved within Financial Scheme	
4.2	Organisations Participating outside the Financial Scheme	
5.0	Results of the Joint Action	16
5.1	Quantitative Results	
5.2	Qualitative Results	
6.0	Concluding Remarks	27

ABBREVIATIONS

EEA	European Economic Area
GPSD	General Product Safety Directive
PROSAFE	Product Safety Enforcement Forum of Europe
TOY-ADCO	The Administrative Cooperation Group made up of various market surveillance authorities responsible for product safety of toys within the respective Member States of the EEA.
XRF	X-ray Fluorescence

1 INTRODUCTION

1.1 Title of Joint Action

Joint Market Surveillance Action on TOYS – Agreement No. 17.020200 / 08 / 507574.

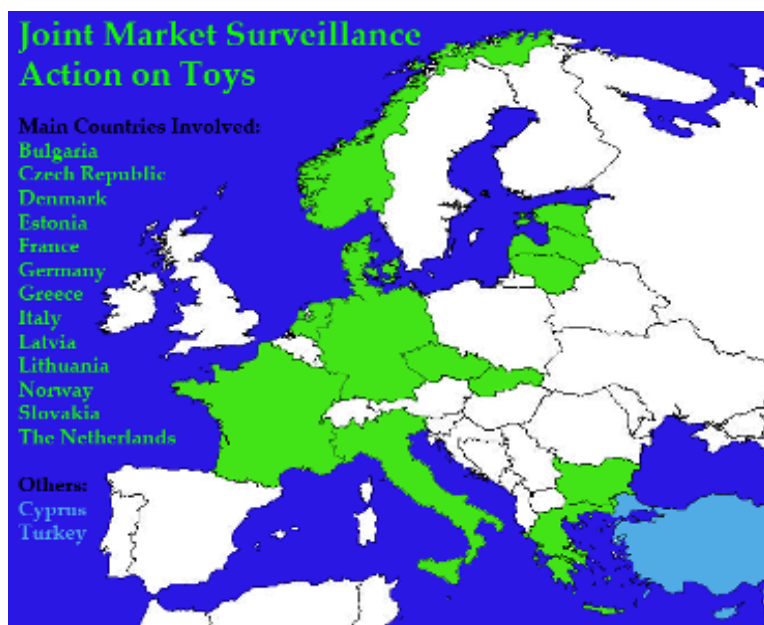
1.2 General Information

PROSAFE has been awarded financial contribution by the Commission to this joint market surveillance action on TOYS as per Action 8 of Decision 1926/2006/EC - establishing for Community action in the field of consumer policy.

15 Market Surveillance Organisations from the following 13 Member States are participating as shown within the map below:

Organisations from Cyprus and Turkey have also been actively involved in this project outside the financial scheme. The TOY-ADCO has also been continually updated.

Market Surveillance authorities from across the world have been updated via the ICPSHO newsletter. The actual outcome of total participation is explained in detail within section 4.0.



The total budget cost for this project is €815,603 out of which the Commission is funding 69.5% of the total cost, equivalent to **€566,980.21**.

The Project Leader of this joint action is Mr. Jan van Leent, Senior Public Health Officer within the Food and Consumer Product Safety Authority (VWA), The Netherlands. The coordination of the project was subcontracted to an independent consultant, Mr. Noel Toledo. Core Groups from amongst the participating members of this joint action were also identified to help to distribute and reduce the overall workload.

1.3 The Scope of this Report

The scope of this report is to show the main results and analysis of this joint action up till April 2010. Discussions have been held during the Final Workshop, that was held on the 15th April 2010, to decide on possible additional activities that will be focused upon during the coming months.

2 PRIMARY PRODUCT TARGET, PURPOSE, OBJECTIVES & DELIVERABLES

2.1 Primary Product Target

The primary product target of this project is:

- the investigation of small parts & magnets in toys and
 - the investigation of traces of heavy metals in toys
- for children under 3 years of age.*

2.2 Primary Purpose

The primary purpose is to ensure that toys for children under 3 years old with respect to the investigated aspects (small parts and magnets in toys; heavy metals) placed within the Single Market are safe. This is to be done by:

- Identifying the present level of conformance of the types of toys that are placed within the Single Market through the actual implementation of the joint market surveillance action and testing.
- Achieving a higher level of conformance / safety of these toys by the end of the project by ensuring that the respective manufacturers, importers and distributors are fully aware of what level of conformance are needed within such toys and through the removal of any unsafe products found within the market.

Secondly, the purpose of this project is also to gather experience related to best practice techniques whilst running a joint market surveillance action that involves many Member States, that is:

- Acquiring experience from the execution of a joint market surveillance and enforcement action with participation of many Member States.
- Promotion of a harmonised approach to the market surveillance and enforcement of the safety requirements of toys.
- Promotion of the cooperation between market surveillance authorities and Customs Authorities.

Thirdly, another purpose of this project is related to the gaining and sharing of experiences related to:

- The coordinated tendering of rather expensive screening apparatus
- The use of screening equipment in practice and
- Round robin test on the use of screening apparatus and test method EN 71-3 between authorities.

2.3 Strategic Objectives

The strategic objectives of this project are described within two main modules of this project.

MODULE I - To gather experience and best practice techniques through the respective joint market surveillance actions mainly related to:

- Investigations directed on small parts and *magnets** in toys in relation to the relevant requirements of the standard: EN71-1:2005 Safety of Toys – Part 1: Mechanical & Physical properties

** In the case of magnets, it was agreed that no direct surveillance and enforcement activities will take place since the standard has just been updated in June 2009, during the implementation phase of this joint action. Instead, information campaigns were organised by most of the participating organisations.*

MODULE II – To further gain experience and best practices through the utilisation of XRF screening apparatus mainly related to:

- Investigations directed on **heavy metals in toys** in relation to the relevant requirements of the standard: EN71-3:1994 Safety of Toys – Part 3: Migration of certain elements

2.4 Main Deliverables of the Project

The main deliverable of the project should eventually result in a reduction of unsafe toys for children (under 3 years old) on the European market.

Furthermore deliverables from the project will be:

Module I: Joint Market Surveillance

- Biannual progress reports.
- Description of used test methods
- Project meetings
- Report on the results of the market surveillance actions
- A final report.
- A workshop to present the main findings and results.

Module II: Tendering and use of XRF screening apparatus for heavy metals in toys

- Biannual progress reports.
- Description of used test methods
- Report on the round robin test
- Report on confirmation of screening by lab-tests
- Project meetings
- Report on the results of the use of XRF apparatus during the market surveillance actions
- A final report.
- Main findings and results presented at the workshop in the framework of Module I.

3 ACTIVITIES UNDERTAKEN IN THE JOINT ACTION

3.1 Meetings Organised by this Joint Action

KICK-OFF JOINT ACTION MEETING – September 2008

A kick-off meeting was held on 16th September 2008 to discuss and further explain to all participants the objectives and deliverables of the project according to details highlighted within the agreement itself.

Jan van Leent was identified from amongst the group to take the lead in this Joint Action and act as Project Leader in view of his experience as PROSAFE Secretary. Noel Toledo was appointed by PROSAFE as the Task Coordinator for this Joint Action after a call for consultancy services was issued by PROSAFE earlier on.

PRESENTATION GIVEN DURING AUTUMN 2008 TOY-ADCO MEETING

A special presentation was also given to the TOY-ADCO meeting to get the market surveillance authorities fully aware of this project.

JOINT ACTION MEETING – November 2008

Meetings were also held with the participants on the 24th and 25th November to further discuss details of how to best proceed with this Joint Action.

These two meetings were utilised to develop, discuss and finalise the detailed work plan for the project after taking into consideration the views of the participants and the best practical way how to implement the project.

Two Core Groups, one for each Module were identified from within the Joint Action participants in order to help the Task Coordinator in the particular technical issues that needed to be implemented in relation to each Module.

PARTICIPATION IN TOY FAIR – NUREMBERG – February 2009

In February 2009, a small group of participants made up of the Task Coordinator and participants from Greece, Czech Republic, Norway met the Dutch and German market surveillance officers to perform on-site surveillance activities during the Toy Fair in Nuremberg, Germany. The results of these investigations were presented and discussed during the Joint Action meeting on the 23rd March 2009.

JOINT ACTION MEETING – March 2009

Once the work plan was agreed upon and after the launch and adjudication of the XRF tenders, a special meeting on the 23rd March was organised together with Customs officers and external stakeholders to ensure a high level of awareness of these stakeholders.

The tenders for laboratory testing were issued immediately after this meeting and a lot of work was done by the Joint Action to finalise a special guide to market surveillance authorities on product types that were going to be focused upon, including the type of action that was going to be done with respect to magnetic toys.

PRESENTATION DURING SPRING 2009 TOY-ADCO MEETING

The Task Coordinator and the Task Leader gave another presentation on the Joint Action to the members of the TOY-ADCO in March 2009. The actual meeting was organised back-to-back with the TOY-ADCO in order to minimise costs for the Joint Action and also primarily

to ensure better participation from members of the TOY-ADCO who were invited to attend the meeting.

JOINT ACTION MEETING – June 2009

In order to ensure a coordinated start, another joint action meeting was organised on the 26th June. Part of the afternoon session was an open session whereby external stakeholders were again invited to attend and give further feedback.

In order to ensure proper implementation of market surveillance activities, it was agreed that the actual implementation plan, that was, the second phase of the project, was going to be implemented between July – December 2009. The final phase, the analysis phase is expected to be focused upon between January and April 2010 whereby a special one-day workshop organised to present and discuss the results of this Joint Action in liaison with the TOY-ADCO group. In view that the end date of this Joint Action is in 2011, there was no objection to these slight changes in duration of each phase of the project both from the participants as well as from the Commission.

From July up till September, market surveillance activities and sampling exercises were initiated and the first samples arrived at the laboratory for testing according to EN71-1 and EN71-3.

PRESENTATION DURING AUTUMN 2010 TOY-ADCO MEETING

The TOY-ADCO members were again updated with the activities and results achieved so far by the Joint Action.

JOINT ACTION MEETING – January 2010

A meeting of the Joint Action was organised in January 2010 in order to discuss the preliminary information received from market surveillance organisations. Most of the test reports had been received by then and the joint action agreed on the steps forward needed to finalise and analyse all the data received from all test reports in the coming weeks.

PRESENTATION TO THE NOTIFIED BODY TOYS GROUP – March 2010

A presentation of the provisional results was given during the Notified Body Toys Group meeting in Brussels. An interesting discussion was also held immediately after the presentation and various points were noted, in particular, the importance of possibly also analysing the age grading in the EN71-1 analysis besides various other points and queries made by the members and observers present.

FINAL WORKSHOP OF THE JOINT ACTION – April 2010

The final workshop of this Joint Action has been held on the 15th April 2010, back-to-back with the TOY-ADCO meeting in order to present and discuss the results of the activities undergone so far in relation to Module I and Module II.

The closed session of the workshop was utilised to discuss what will be taking place in the coming months. This will primarily depend on available funds and on available resources by the participating organisations.

3.2 Basic Underlying Strategy

It was agreed that wherever feasible, the market surveillance officers should direct their effort on the respective toy **manufacturers, importers and distributors**. However, there may be cases where only distributors or small retailers exist within a particular region. In that case, it was agreed that those should be focused upon and their surveillance exercises were to be directed accordingly.

After a number of discussions held within the Joint Action meetings, it was also agreed that the participating organisations were to mainly focus on trying to identify samples which, based on the preliminary visual investigations, might result in having some non-conformances. Thus, instead of just performing random sampling from the market in order to assess the percentage level of compliance within the market, the type of samples analysed and sent for lab testing will, according to the participating organisations have already a high probability of non-conformance.

It is to be noted that the awaited EN 71-1:2005+A8:2009 Safety of toys — Part 1: Mechanical and physical properties has been published by the Commission as a harmonised standard to the Toys Directive in the 30th April 2009. This meant that with respect to magnets, the Joint Action decided to adopt a strategy whereby it would mainly focus on a kind of information campaign. Inspectors, besides taking note of non-compliant magnetic toys, would as much as possible focus on informing/updating producers/importers/distributors accordingly of what needs to be done in order to ensure that only safe magnetic toys were placed on the market. A final decision will be taken during the 15th April 2010 to decide whether a small market surveillance activity on magnetic toys will be organised by most of the participating market surveillance organisations some time during 2010 - 2011.

Indeed, where unsafe products have been encountered, market surveillance authorities are of course still obliged to take the necessary enforcement action in order to remedy the situation as quickly and as efficiently as possible.

3.3 Criteria Adopted For Classification of Toys

During the first phase of the Joint Action, the participants, with assistance from the Project Coordinator and input from the respective Core Groups, came up with basic criteria for classifying toys intended for children under 36 months. These criteria were mainly based and developed on already existing documents that were available within this particular sector.

Toys could be designed in such a way that some of their characteristics may appeal to children under 36 months of age while other characteristics may appeal to children above 36 months of age. In fact, the borderline between toys intended for children under and above 36 months is not always clear and easy. In order to clearly identify the borderline some key factors were identified by the expert group.

The play value of a toy intended for children under 36 months could be determined by the following key factors:

- (1) the psychology of children under 3 years, particularly their need to “cuddle”;
- (2) their attraction to objects “which are like them”: baby, small child, baby animal, etc.;
- (3) their mental development, particularly their capacity for abstraction, level of knowledge, limited patience, etc.;

(4) their less developed physical abilities in terms of ease of movement, manual dexterity, etc. (the toy may be small and light for the child to handle it easily).

Some considerations have to be made:

(1) The children's aptitude to use a toy in accordance with the toy's intended use will be a determining factor that will justify the choice whether such a toy is ultimately intended for children of less than 3 years of age or not; one has to always go for the youngest age of a child who may have the necessary aptitude to play with that toy and see whether that age group is less or more than 3 years of age.

(2) If a toy involves small parts that can be swallowed or inhaled or if there is a risk of strangulation, this does not mean, ipso facto, that the toy is intended for children of more than 3 years old;

(3) If a manufacturer or importer fixes the appropriate marking "*Not suitable for children under 36 months*" or "*not suitable for children under three years*", this does not automatically justify that such a toy is not to be considered as a toy for children under 3 years of age. One has to take into consideration aspects mentioned above as well as the level of risk it will involve to children of less than 3 years of age.

In order to also facilitate coordination of the huge number of samples to be collected for this project, a product type code was established for each of the type of toy that was monitored. These toy categories utilised for this joint action were primarily based on a guidance document that originated from the TOY-ADCO/Expert Group.

3.4 Module I: Joint Market Surveillance

FIRST PHASE: Preparation of the market surveillance activities

September 2008 – April 2009

The kick-off and Joint Action meetings in November 2008, March and June 2009 assisted the participants in developing together the detailed work plans of this particular module in order to:

1. Set up the respective administrative procedures
2. Discuss and ensure that market surveillance officers, including Customs, are fully aware of this Joint Action and what needs to be done in order to facilitate better monitoring and collection of information during the implementation phase.
3. Prepare specific guidelines for participating organisations in order to also know which product types will be focused upon and what methodology will be used. Refer to respective attached guide on product types that was finalised by this Joint Action in June 2009.
4. Identify procedures and reporting forms for this particular Joint Action as indicated within the product guide.
5. Integrate experiences learnt from the monitoring of the International Toy Fair in Nürnberg, Germany

With respect to EN71-1, it was agreed that each sample had to be at least tested for the following areas:

SPECIFICATIONS FOR MODULE I – testing related to EN71-1

The toys will be tested in line with the respective clauses of EN71-01, in particular Clause 5. The following tests have been particularly specified to be carried out for the toy samples that need to be tested under Module I of the Action.

EN71-1, par.8.2 – Small parts cylinder
EN71-1, par 8.3 – Torque test
EN71-1, par. 8.4 – Tension Test (8.4.2.1 & 8.4.2.2)

EN71-1, par 8.5 – Drop Test
EN71-1, par 8.6 – Tip over test
EN71-1, par 8.7 – Impact Test
EN71-1, par 8.8 – Compression Test
EN71-1, par 8.9 – Soaking Test
EN71-1, par.8.10 – Accessibility of a part or component
EN71-1, par 8.16 – Geometric shape of certain toys (where relevant)

SECOND PHASE:

Market surveillance activities fully up and running:

May 2009 – December 2009

This Joint Action was focused on the surveillance and sampling exercises needed in order to gather samples which were then mostly tested by one accredited laboratory. Additionally, three of the participating organisations utilised their own accredited laboratories for testing purposes. Almost all the participating market surveillance organisations had sent their samples for testing and test reports started to be issued and collected by the end of this phase and into the next phase.

THIRD PHASE:

Gathering of information and Analysis

January 2010 – April 2010

A lot of work was needed to collect and gather hundreds of test results. This was done in an organised fashion and spreadsheets had been developed for the participants themselves whereby they could actually see each individual samples together with the respective test results of that particular sample. Webex, a web-based management system used by PROSAFE, was utilised for this particular purpose.

The meeting of the Joint Action in January 2010 was utilised to further discuss and fine-tune the strategy on how to finalise the results of the analysis. The first presentation of the provisional analysis was given to the Notified Body Toys Group in March 2010. However, the final and complete presentation of the analysis and results of this joint action will be presented during the specific Joint Action Workshop on the 15th April 2010.

Guidance documents are also being developed so as to try and see whether it is possible to come up with best practices in relation to generic but common intervention policies on measures that need to be taken by market surveillance organisations once they identify non-compliances.

Another guidance document is being developed for market surveillance inspectors in order to have better hands-on experience on what to look for when investigating a toy for children under 3 years of age, in particular, in relation to clause 5 of the standard EN71-1.

MAGNETIC TOYS

In the case of magnetic toys, various discussions were held during 2008 and early in 2009 with all the participants, in particular those involved in Module I.

Background

Magnets detached from toys that are ingested by children can present specific hazards. If more than one magnet, or one magnet and a ferromagnetic object (for example iron or nickel) are ingested, the objects can attract to each other across intestinal walls and cause perforation or blockage, which can cause severe injuries that may be fatal.

Several accidents, including one fatality, have been reported involving ingestion of magnets and resulting in perforation or blockage of the intestines. Most accidents have occurred with children between the ages of 10 months and 8 years. The majority of the accidents involve strong magnets used in magnetic building sets and in several cases surgery was required to remove the magnets from children's intestines. Medical signs associated with intestinal perforation or blockage can easily be misinterpreted since many children exhibit only flu-like symptoms. Such misinterpretations cause delay in the respective medical treatment and have led to medical consequences for children.

Interim warning decision

In order to ensure that consumers were made aware of the possible risks with magnetic toys, the Commission adopted a Decision (2008/329/EC) on April 21, 2008, to require that certain magnetic toys were marked with a warning as from July 21, 2008. The requirement was intended to be an interim decision and to be effective until CEN published a standard that would ensure that the design of the toy would eliminate the risks with regard to magnets, as far as possible. The type of interim decision was valid 12 months from the date of decision and was thus automatically revoked AFTER April 21, 2009.

According to Decision 2008/329/EC a warning is required for toys that contain or consist of loose or detachable magnets, or magnetic components of such size and shape that they can be swallowed by children. The decision applies to all toys that are available on the market after July 21, 2008 and until the decision is automatically revoked on April 21, 2009.

Harmonised standard setting requirements for magnets in toys

In order to set requirements for magnets in toys the Commission mandated CEN to develop a standard to cover risks related to magnets in toys. CEN has already published this amendment (amendment 8 to EN 71-1:2005) and the Commission has also published EN 71-1:2005+A8:2009 Safety of toys — Part 1: Mechanical and physical properties - in the Official Journal as a harmonized standard to the Toys Directive on the 30th April 2009.

As from the 30th April 2009, toys that are placed on the market shall comply with this harmonized standard. Thus, the following will apply from a practical point-of-view:

1. Magnetic toys that have been imported to the EU, transferred from a manufacturer in the EU to a distributor, or placed on the shelves in a store, before April 21st, 2009 shall carry the warning as stated in the Commission decision from 2008. Such magnetic toys can continue to be sold to consumers until stocks/shelves are empty (it is however recommended that they be phased out as soon as possible).
2. Magnetic toys that are placed on the market (e.g. imported to the EU, or transferred from a manufacturer in the EU to the distribution chain), after 30th April 2009 must fulfil the requirements in amendment 8 to EN 71-1.

Agreed Strategy and way forward with respect to magnetic toys

In view of this new standard in the middle of 2009, the joint action decided to adopt a kind of information campaign rather than to perform direct market surveillance activities.

Discussion will also be held on the 15th April 2010 to decide on whether it is possible to perform a specific market surveillance exercise on magnetic toys during 2010-2011. This will depend on the availability of funding and the availability of resources from the participating organisations.

3.5 MODULE II - Tendering and use of XRF screening apparatus for heavy metals in toys

A special Core Group for this particular module was also established. Besides developing the detailed work plan, the Core Group was especially useful to develop the technical specifications of the tender related to the XRF equipment.

PURCHASING OF XRF HAND HELD EQUIPMENT

With assistance from the respective Core Group, the Joint Action issued a call for tenders for the purchase of 8 XRF hand-held equipment. There was substantial interest for this tender by various bidders in view of the relatively larger than normal amount of XRFs required.

Indeed, it is evident that there are substantial benefits from issuing joint tenders in this manner since the suppliers would be interested to give heavy discounts and thus, the overall cost per Member State is substantially reduced.

To give a factual example from this same call for tenders, the result was that PROSAFE, on behalf of 8 market surveillance authorities, was able to purchase the final XRF analyzers at a price 32% less than the normal price which equates to a reduction of thousands of Euros over the 8 XRF handheld analysers that were bought. Thus, there are substantial benefits to assist market surveillance authorities in issuing joint tenders.

There were other substantial advantages, for example in the after-sales services provided to the market surveillance authorities and special additional offers being made by suppliers. Thus, there is substantial evidence from this Joint Action to show that issuing a joint tender will substantially reduce costs to the market surveillance authorities.

Based on preliminary exercises, it also transpires that from a vast amount of screening exercises performed with these XRF machines on various products by the participating organisations, only a few were found to have high levels of heavy metals. This actually meant that market surveillance authorities would not need to send a huge number of samples for lab testing if such XRF handheld equipment was used as a preliminary screening exercise.

FIRST PHASE:

September 2008 – April 2009

All the preparations as indicated within Phase I of this particular Module have been done; the purchase of XRF equipment, the training on how to use these XRF Analyzers, the type of products that will be targeted and the samples to be gathered for testing under EN71-3 were all established.

SECOND PHASE:

May 2009 – December 2009

Market surveillance activities with XRF equipment were fully up and running. A guide on which types of samples are to be collected has been developed in order to ensure a more coordinated and synergised approach. Samples have been sent for testing.

THIRD PHASE

January 2010 – April 2010

The analysis of the test reports was made after gathering all the reports. The findings and analysis of these results will be presented during the specific workshop on the 15th April 2010.

A guidance document on XRF hand-held equipment and experience learnt from this joint

action is currently being developed.

ROUND-ROBIN TEST

A proficiency study (also known as a Round-Robin) was organised as part of this Joint Action. The whole exercise was directed by VWA (the Food and Consumer Product Safety Authority) in the Netherlands.

Design of the proficiency study

The goal was to get an impression of the performance of the quantitative determination of lead in powdered paint using method EN71-3 (for the migration) and a XRF apparatus (for the content). Besides the fourteen laboratories from the respective countries of the Joint Action, sixteen other (international) laboratories participated in this round-robin.

Two samples powdered paint (containing .5% lead) were sent to each participant. The participants were requested to analyse the samples for their lead content or/and migration.

Performance of XRF apparatus

Nineteen laboratories measured the lead content using an XRF apparatus. The performance of the determination of the lead content in paint was found to be satisfactory. This meant that there was not a large spread in the results and most participants performed the analysis well. This also indicates that the samples were suitable for the proficiency study.

One has to note that the XRF apparatus measures the lead content. But the European limit is set for the migration, which should be measured using method EN71-3. Therefore, the XRF apparatus can only be used as a screening tool.

Performance method EN71-3

Twenty-three laboratories measured the lead migration using method EN71-3. The performance of the determination of the lead migration from paint is questionable. This is caused by the large spread in results, which is normal for migration analyses.

Three different types of equipment for the analysis were used: ICP-OES, ICP-MS and AAS. There is no significant difference in the migration results between these three types of equipment used for the analysis. Furthermore it appeared that according to method EN71-3, it is not clear how much content from the sample should be analysed. The method can be interpreted several ways: analysing 100 mg of sample is preferred, but analysing a larger amount is not prohibited. Subsequently hydrochloric acid should be added in a prescribed ratio (based on the amount of the sample). However, the amount of sample for analysis should not affect the migration results.

Limit for measurement/enforcement

The limit for measurement/enforcement can be calculated from the proficiency study.

This is the value, resulting from a single analysis, above which a sample should be rejected with a probability of 95%. The limit for measurements calculated from this study is 140 mg/kg. This is higher than the limit for measurements calculated according to EN71-3, i.e. 120 mg/kg (90 mg/kg plus an analytical correction of 30%).

A detailed report has been prepared by VWA on this round-robin and the important results of this proficiency study have been presented and discussed during the Joint Action meeting in January 2010.

3.6 LABORATORY TESTING FOR EN71-1 and EN71-3

A lot of preparations were made between March and June of 2009 in order to be able to test a number of samples both according to EN71-1 and EN71-3. A call for tenders was specifically launched for this purpose in April 2009 and after an adjudication process, an accredited laboratory was chosen to perform the respective tests of this joint action.

Indicative amount of samples that will possibly be sampled

As it can be seen from the table below, it was envisaged that at least 3 samples from each of the product types shown below were to be tested. However, this should be seen as a generic guideline and each market surveillance authority had ultimately to decide whether to take more samples of one particular product type and less from others, depending on what was predominantly found within the market. Overall, the total amount of samples tested by each market surveillance authority participating in this joint action was envisaged to still be not more than 30 for each module in order to keep the budget limitations under control. However, market surveillance authorities who wished to perform additional testing out of their own resources were free to do so.

INDICATIVE TABLE OF SAMPLES TO BE TESTED AT MAIN TEST LABORATORY

Section	Description	SAMPLES for Module I – EN71-1 testing	SAMPLES for Module II – EN71-3 testing
1.1	Foam Floor Puzzles	3	3
1.2	Wooden, Cardboard or plastic puzzles	3	3
2.1	Dolls sold alone	3	3
2.2	Baby dolls and dolls sold with associated features/accessories	3	3
3.1	Stuffed Soft Toys	3	3
3.2	Non-stuffed soft toys	3	3
4	Bath Toys	3	3
5	Rattles	3	3
6	Soft balls	3	3
7	Other painted (wooden, plastic, metal) toys	3	3
TOTAL FROM EACH AUTHORITY		30	30

** (Module I - Bulgaria, Czech Republic, Denmark, Estonia, Greece, Italy, Latvia, Lithuania, Norway, Slovak Republic) + (Module II - Bulgaria, Czech Republic, Estonia, Greece, Italy, Lithuania, Norway, Slovak Republic).*

TESTING BY FRANCE, GERMANY, THE NETHERLANDS,

Additionally, the participating organisations from France, Germany and The Netherlands also performed a number of sampling and testing exercises, utilising their own accredited government laboratories for this purpose.

3.7 Concluding Remark

The Joint Action has succeeded to implement the first three phases of this project; the preparatory phase, the implementation phase and the analysis phase. Discussions have been held during the Final Workshop that was organised on the 15th April 2010 in order to determine what other activities will be organised in the coming months.

Various guidance documents are also being developed and will continue to be fine-tuned during the coming months.

External stakeholders were also periodically updated about this joint action and feedback received from their end was subsequently included within the strategy adopted for this joint action. Additionally, recommendations and comments made by external stakeholders during the workshop on the 15th April will be taken into account in order to further fine-tune any activities in the coming months and also for any other new joint actions that may be organised in the years to come.

4 PARTICIPATING ORGANISATIONS

4.1 ORGANISATIONS INVOLVED WITHIN FINANCIAL SCHEME

Table 4 shows the market surveillance organisations directly participating in this Joint Action and benefiting from the financial scheme made available throughout the grant agreement with the Commission.

TABLE 4: Organisations Directly Involved in the Joint Action on TOYS

COUNTRY	ORGANISATION
Bulgaria	State Agency for Metrological and Technical Surveillance
Czech Republic	Ministry of Health of the Czech Republic – National Institute of Public Health
Denmark	Danish Safety Technology Authority
Estonia	Consumer Protection Board of Estonia
France	DGCCRF / Unit E3 – Consumer Products Safety
Germany – Bavaria	Labour Inspectorate at the District Government of Central Franconia – Bavaria
Germany – Hesse	Regierungsprasidium Kassel – Hesse
Greece	Ministry of Development, General Secretariat for Consumer Affairs, Technical Control Secretariat
Italy	National Institute for Health , ISS, Italy
Latvia	Consumer Rights Protection Centre
Lithuania	The State Non Food Products Inspectorate Under the Ministry of Economy
Norway	The Climate and Pollution Agency (KLIF)
Norway	Directorate for Civil Protection and Emergency Planning (DSB)
Slovakia	Slovak Trade Inspection
The Netherlands	Food and Consumer Product Safety Authority (VWA)

4.2 ADDITIONAL ORGANISATIONS PARTICIPATING OUTSIDE THE FINANCIAL SCHEME

ADDITIONAL MARKET SURVEILLANCE AUTHORITIES

A number of market surveillance authorities showed an interest in this project (outside the financial scheme). Indeed, this was achieved in various ways. The initial strategy was to actually utilise the participating organisations to contact and update the market surveillance authorities from their neighbouring countries. A coordinated approach was done with the help of the task coordinator. Indeed, one of the positive outcomes was the relationship established between the market surveillance authorities of Greece and **Cyprus** in this respect whereby samples from Cyprus were taken by the Greek authorities for testing within this joint action.

Strong ties have been established with the TOY-ADCO Group and PROSAFE has continually updated the Group during every TOY-ADCO meeting that is organised to keep them fully up-to-date and to also get feedback from their end too. The Joint Action is also updating and coordinating each phase of the project with DG-Enterprise too. The market surveillance

authorities from **Luxembourg** have shown particular interest in this project in view that their organisation has quite recently been given the added responsibility on market surveillance of the toy sector and thus they were eager to know how they can benefit from the information and experiences learnt from within this Joint Action. The Consumer Agency in **Sweden** was also particularly interested on what was done within this Joint Action and PROSAFE is keeping them up-to-date with what is being done within this Joint Action too.

Turkey is also particularly active in this project and continues to participate in all the Joint Actions meetings. Indeed, they have initiated various surveillance activities based on this joint action and reports have also been sent to PROSAFE on the actual activities done from their end.

At an International level, this Joint Action has tried to establish contact with **Health Canada, CPSC from the United State, ACCC from Australia, BSMI from Taiwan and NITE from Japan**. Indeed, information was also published about this Joint Action in one of the ICPSC Newsletters to update them on what are the main objectives of this joint action. PROSAFE, through the Task Coordinator of this Joint Action, has also periodically updated all these international participants on what has been done and some feedback was also received from some of them in certain cases.

CUSTOMS

The participations of this joint action tried to also involve and update Customs authorities as much as possible about this project. Initially, in particular during the first few months, it was agreed that it was more important to internally decide between the participants the actual strategy and develop a detailed work plan.

Once this was done, all the Customs authorities from the respective participating organisations were invited to attend the Joint Action Meeting in March 2009 in order to not only update them about what was being done but also to get feedback from their end too. Indeed, Customs officer from the following countries: Bulgaria, Czech Republic, Denmark, Italy, Latvia, Lithuania, Norway, Slovak Republic – attended this meeting.

Indeed, there were some lessons to be learnt too from the recommendations and suggestions put forward from their end, in particular, the importance of keeping the actual strategy as clear and as simple as possible for Customs officers. One has to appreciate that Customs have various other duties and thus it was fair that each particular market surveillance authority had to develop simple measure which could be possibly achieved with assistance from Customs.

Although it was not expected to involve directly Customs authorities in most of these joint action exercises, it was agreed that the results and analysis of this joint action would be conveyed back to the Customs authorities via the respective market surveillance authority.

EXTERNAL STAKEHOLDERS

An important aspect which was given considerable weighting was to involve external stakeholders too. Although during the first few months no contact was made, this was actually done on purpose in order to first and foremost be quite sure about the actual objectives that needed to be achieved and the strategies that were going to be used.

Various external stakeholders were invited for open sessions during the Joint Action meetings from March 2009 onwards. These were representatives from:

- ANEC
- BEUC
- CEN
- The Toy Traders of Europe
- The Toys Notified Body Group
- EPPA (European Promotional Products Association)
- European Retail Round Table
- Euro Commerce and its specific focus/expert group formulated for this particular joint action
- TIE – Toy Industries of Europe
- ICTI – International Council of Toy Industries

Indeed, most of these organisations shown above have participated in either one or more of the joint action meetings organised over these last months. The representatives have been fully updated on the details of this project and several recommendations were passed on to this joint action too to ensure a fair and effective action.

After taking onboard feedback from the external stakeholders, it was for example agreed that in the case of magnetic toys, in particular due to the lack of time available for industry to react and adapt to the new standards in place as from April onwards, no direct market surveillance and enforcement was going to be done through this joint action. However, it was agreed that the participating market surveillance organisations of this Joint Action were to mainly focus on information campaigns, ensuring that business was fully aware of the new requirements related to magnetic toys.

It is to be noted that in the case of Euro-Commerce, a small working group was developed from their end in order to give better feedback to this joint action. On the other hand, PROSAFE, through this Joint Action, continues to update all the external stakeholders accordingly.

Both the supplier of XRF equipment as well as the laboratory used for testing were invited to attend the respective Joint Action meetings and indeed, these have not only participated but also gave valuable advice on certain technical matters. All in all, the level of participation was quite reasonable from all internal and external stakeholders. It is envisaged that this participation will not only continue but will also possibly increase in the coming months, in particular, during the special workshop which will be organised back-to-back with the TOY-ADCO Group in April 2010 and whereby most of the lessons and experiences learnt will be published and discussed with as many market surveillance authorities as possible.

5 RESULTS OF THE JOINT ACTION

5.1 QUANTITATIVE RESULTS

Within this section, the main statistical analysis is being presented. This will be divided into investigations related to EN71-1 and those related to EN71-3.

It is important to note that the figures shown in this report are all derived from the accumulated information derived from the participating organisations and their respective test reports. All the tests are carried out in accredited laboratories. The bulk of the tests were performed by one accredited laboratory. However, three of the participating organisations decided to use their own accredited laboratory for such tests.

It is not the scope of this report to show details of each participating organisation since the scope of this exercise was to extract samples from parts of the Single Market and to analyse the data as a whole. Although individual participating organisations have access to the respective individual data, this goes beyond the scope of this report.

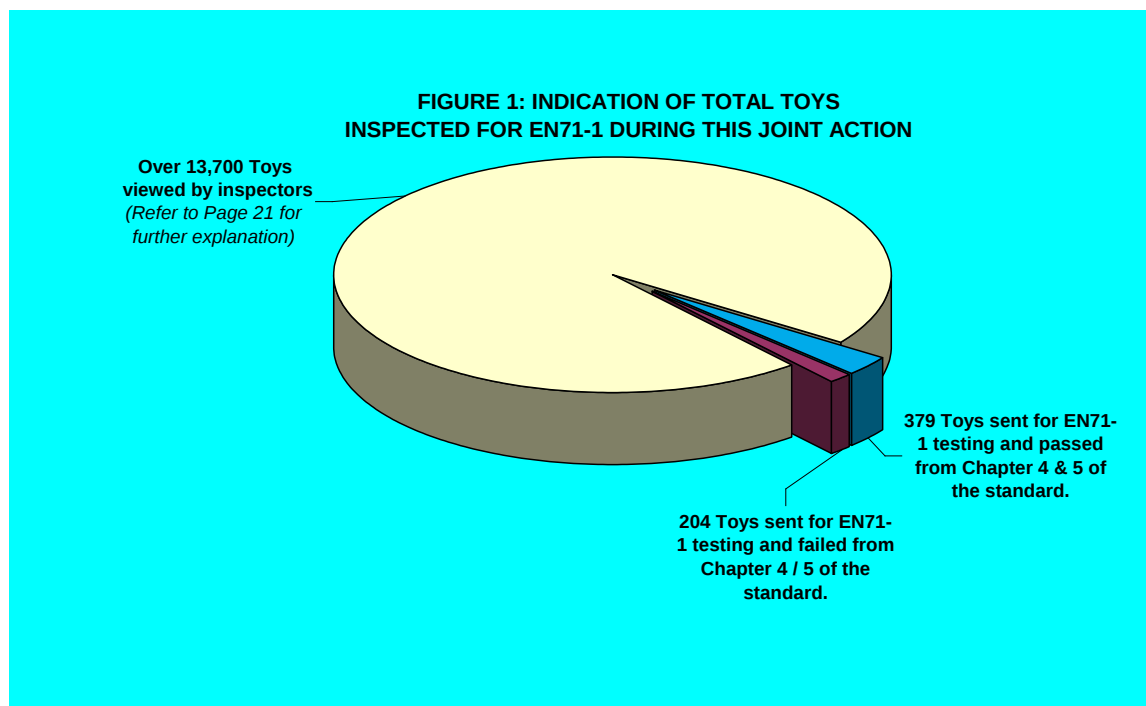
The results themselves DO NOT show a representation of the actual market situation but just the figures and percentages related to this joint action. Indeed, one has to remember that this WAS NOT a random sampling exercise but rather inspectors were instructed to focus upon those economic operators as well as those particular toys which had the highest probability of finding non-compliances within them.

EN71-1 INVESTIGATIONS

The charts below give a graphical representation of the main analysis of the findings of the test results of the joint market surveillance action related to EN71-1, in particular, small parts.

Figure 1 shows that approximately over 14,000 toys were initially viewed by various market surveillance inspectors. Out of all these toys, around 580 were chosen and sent for laboratory testing. It is important to note that this does not mean that the remaining 13,700 which were not sent for testing were all considered to be fully compliant. One needs to understand that most of the participating organisations had a limitation due to project budget restriction of not more than 30 samples to be sent for testing. Additionally, inspectors were requested to choose products that most likely would feature shortcomings when sent for laboratory testing. However, other than the actual product categories, a purely subjective selection on the basis of the inspectors' experience took place during this initial screening process.

From Figure 1 below, one immediately notices that out of the approximately 580 samples sent for EN71-1 testing, 204 have failed, mainly in relation to clause 5 of the standard, which relate to the specific requirements needed for toys intended for children under 36 months, over and above the general requirements identified in clause 4 of the standard.



The participating organisations were asked to mainly focus on economic operators where there is a higher possibility of a failure rate. However, it was also indicated that samples were to be possibly extracted from manufacturers, importers as well as distributors/ retailers. Figure 2 shows the actual breakdown of around 1,400 economic operators inspected for EN71-1 during this particular joint action.

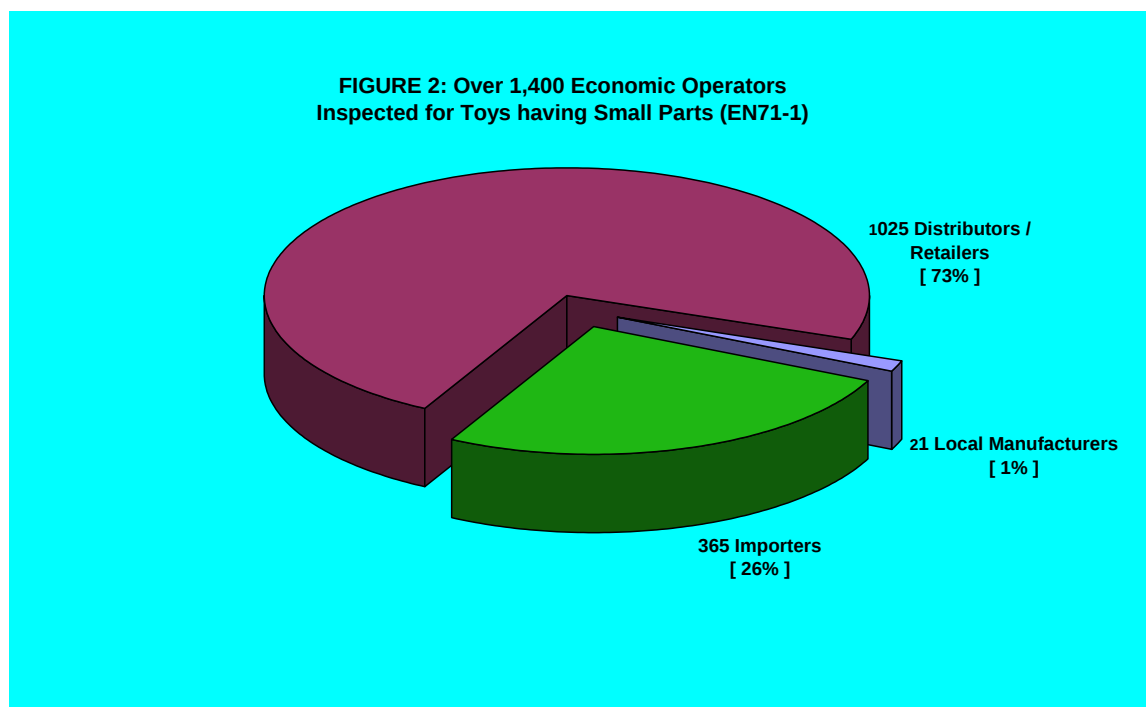
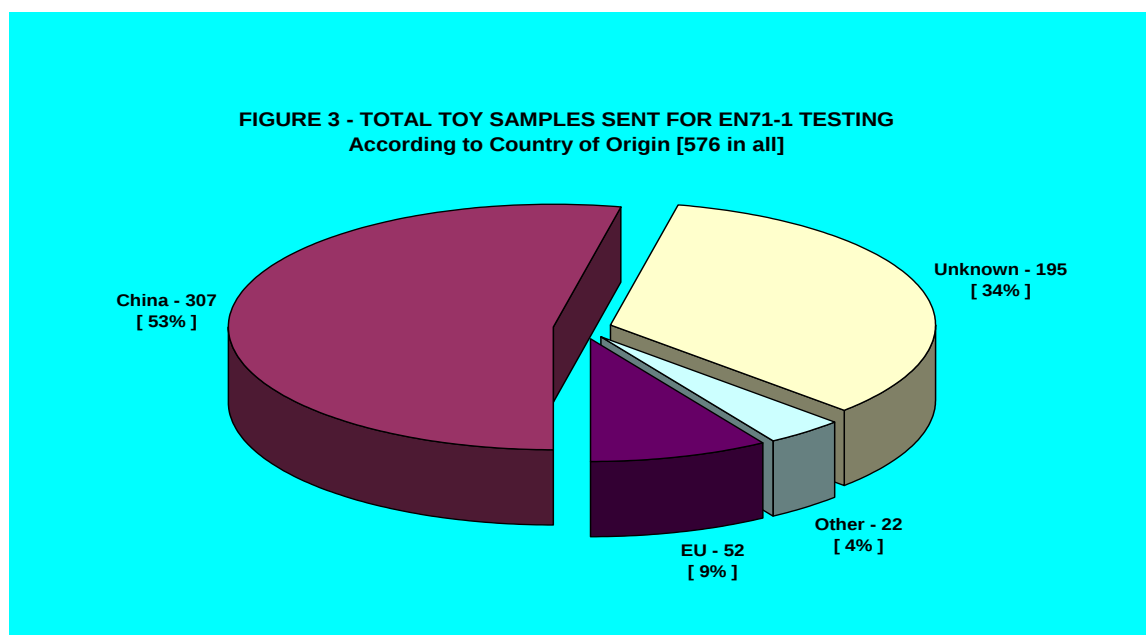


Figure 3 gives a breakdown of the total number of 576 samples sent for EN71-1. This shows a difference of 7 samples compared with the information shown within figure 1 due to the fact that these samples were actually magnetic toys and the size of the sample was too small to perform any real analysis. It is apparent from Figure 3 that the bulk of toys inspected originate from China. This is understandable since the volume of toys from China into Europe is actually quite considerable.



The percentage of toys which did not have the country of origin stated on them seems to be relatively high. A high percentage of toys with unknown origin were actually found by the participating organisation with a large number of samples analysed. This was possibly due to a focused approach that the organisation might have used.

Figure 4 shows a similar breakdown of information, including minor non-compliances related to markings. The figures below are based on 13 out of the 14 participating organisations since one of them did not gather this particular information. It is apparent that there are substantial minor non-compliance in markings too.

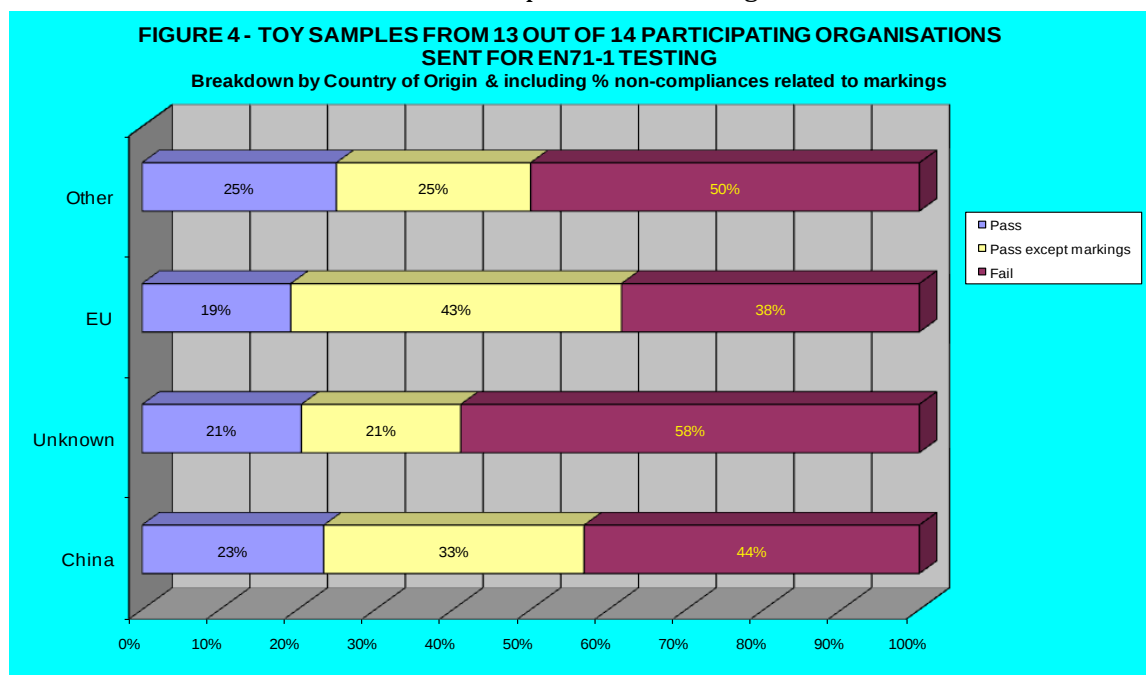
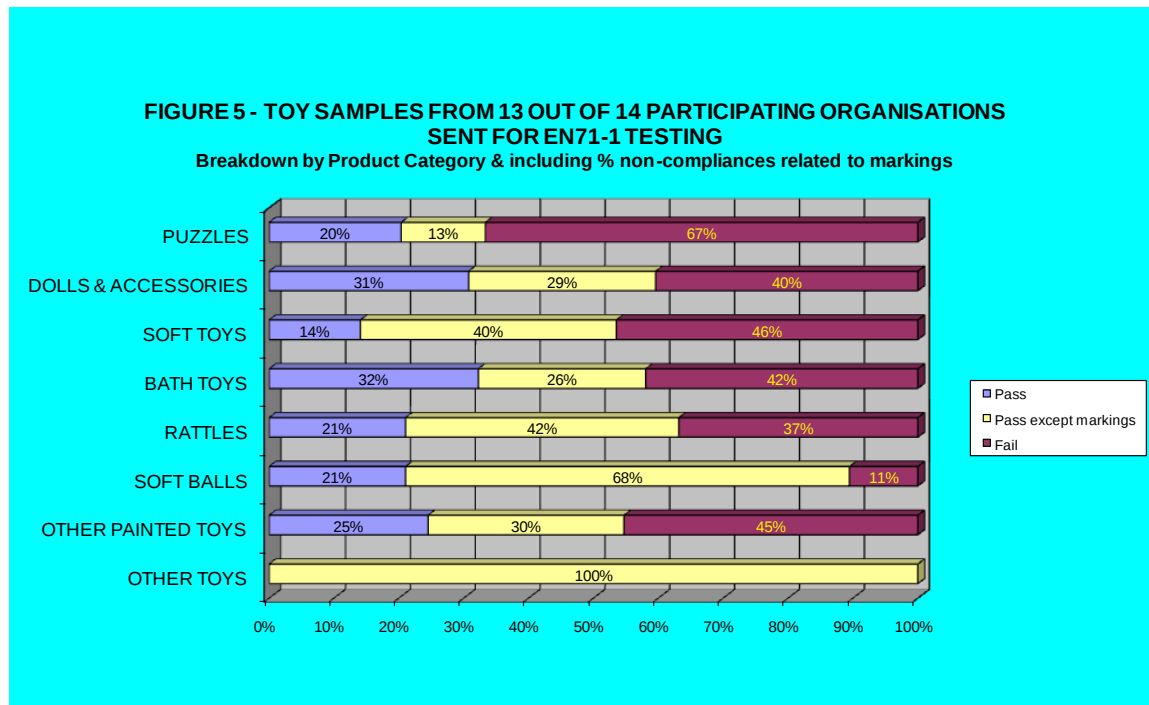


Figure 5, shows a graphical representation of data from the 13 participating organisations, according to product category. Puzzles have been found to be the main product category with the highest percentage failure rate. Soft Toys' have a relatively high percentage failure rate as well. However, it is important to note the considerable minor non-compliances found related to markings. In the case of the category 'other toys' only 3 samples were classified in this category. Thus, the 100% shown for this category should not be given any importance since the number of samples within this category is extremely small.



Concluding Remarks related to EN71-1

- Various lessons are learnt on how to ideally perform joint market surveillance activities. These will be discussed with the TOY-ADCO Group and also with members of the EMARS-II Project currently being coordinated by PROSAFE.
- More discussion is needed with all stakeholders in order to identify HOW to further reduce non-compliances in this particular area, in particular on making business more aware on the requirements related to clause 5.1 of EN71-1. Choking on small parts is one of the first risks identified when toy safety requirements were developed in the seventies. It is amazing that a number of toy manufacturers from across the world still are not able to manage properly this risk.
- Additional analysis is needed on those toys which had some non-compliances related to markings. This also needs to be brought to the attention of business in order to be better aware of what is needed.
- From feedback received from the Notified Body Toys Group during a presentation made during their last meeting held in March 2010, it was recommended that further analysis would be ideal in the interpretation of correct age grading. Additionally, it also would be interesting to see more details of what aspects of marking and labeling failed. Even if this is not done due to time constraint and lack of resources within this joint action, this information will be taken into account for any similar future joint actions.

EN71-3 INVESTIGATIONS

Eleven participating organisations were directly involved in this exercise and the number of samples extracted by each of the organisations were approximately the same. The charts below give a graphical representation of the total amount of toys screened with XRF hand-held analyzers and their respective analysis. It is important to note that these samples may possibly be the same toys which have also been analyzed for EN71-1.

Figure 9 shows that out of a total of around 2,300 XRF screened toys, 227 samples were sent for EN71-3 testing out of which 17 actually failed the respective requirements of the standard.

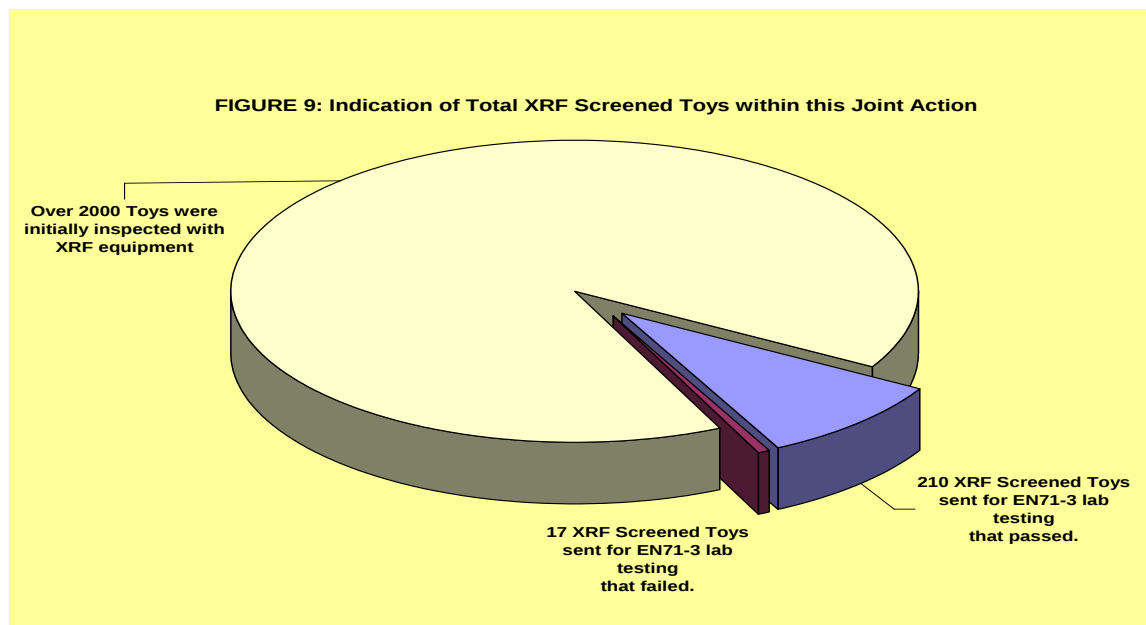


Figure 10 gives a breakdown of the type of 359 economic operators investigated during this screening exercise. The largest amount of economic operators analyzed during both EN71-1 (refer to figure 2) and EN71-3 exercise were distributors / retailers. In actual fact, 486 migration test results and corresponding XRF measurements were analysed out of the 227 samples sent for testing.

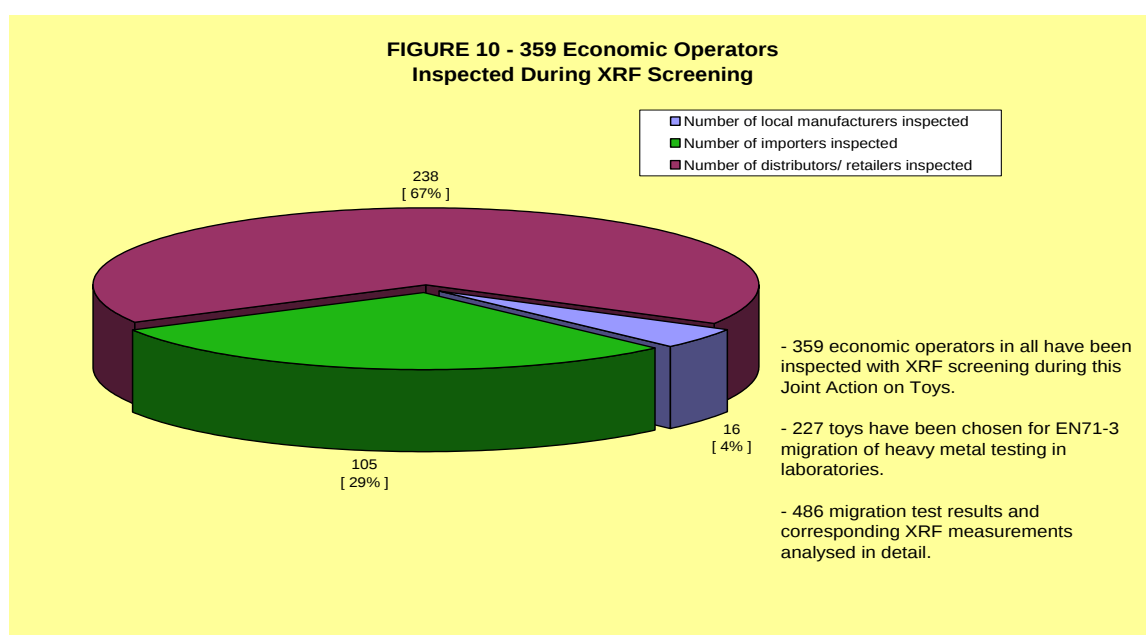
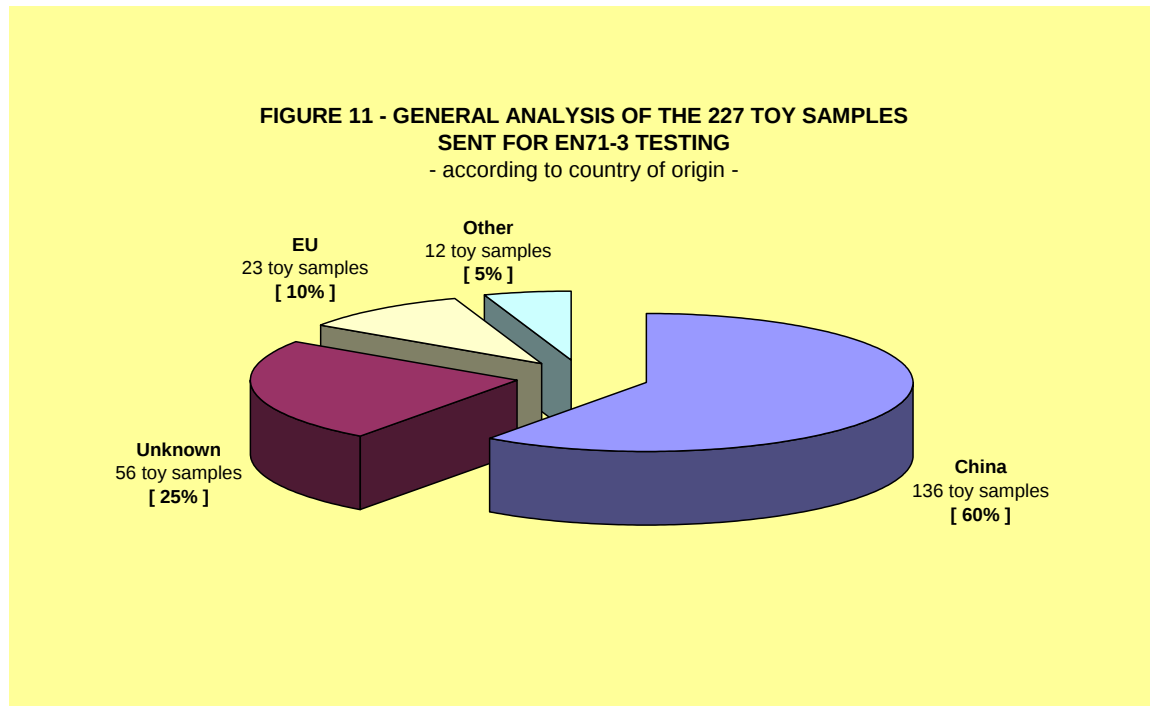


Figure 11 depicts the total number of 227 toy samples analyzed according to country of origin. It is again understandable, (similar to EN71-1 analysis) that the largest volume of toys analysed are originating from China in view of the large quantities of imported toys from China.



On the other hand, Figure 12 gives a breakdown of the 17 toys which failed, according to country of origin. Although the percentage between Figures 11 and 12 are approximately the same, the failed toys originating from China represent a bit of a higher percentage (64% when compared to 60%).

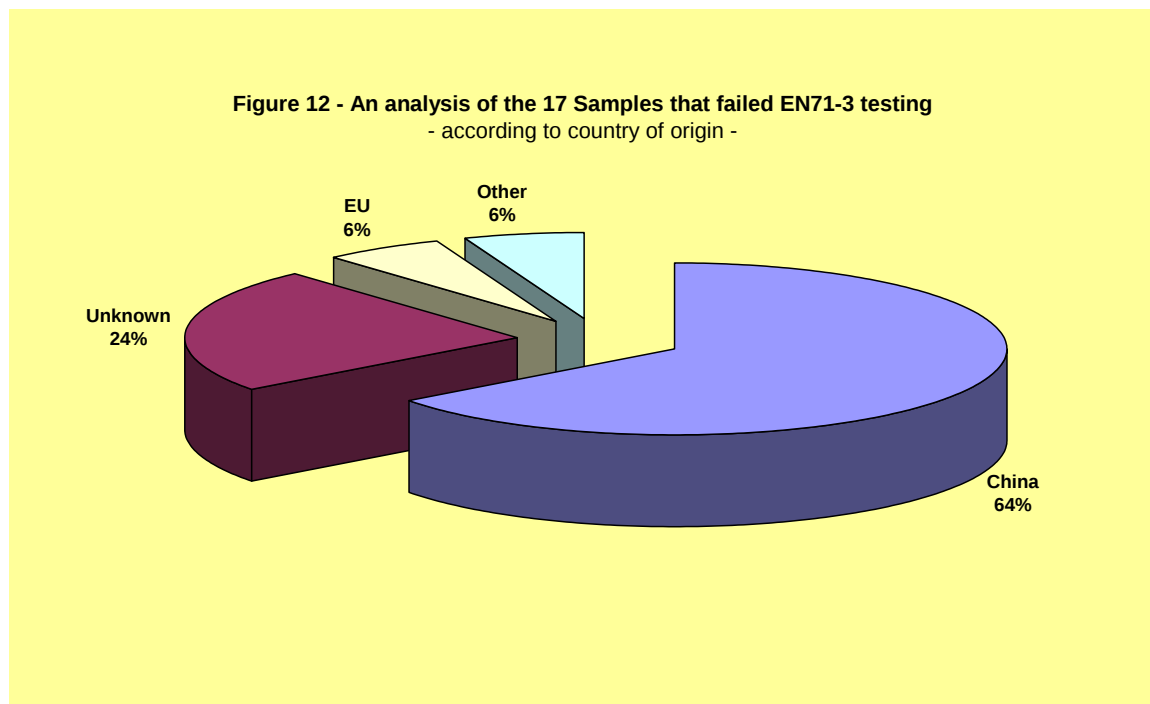


Figure 13 represents the failure rate of total screened toys according to country of origin. The toys made in “China” and “Others” represent the highest failure rate which was found to be 8%, followed closed by those of unknown origin. In the case of “Others”, the majority also originated from the Asian market. Those originating from the EU represented the lowest failure rate of 4% .

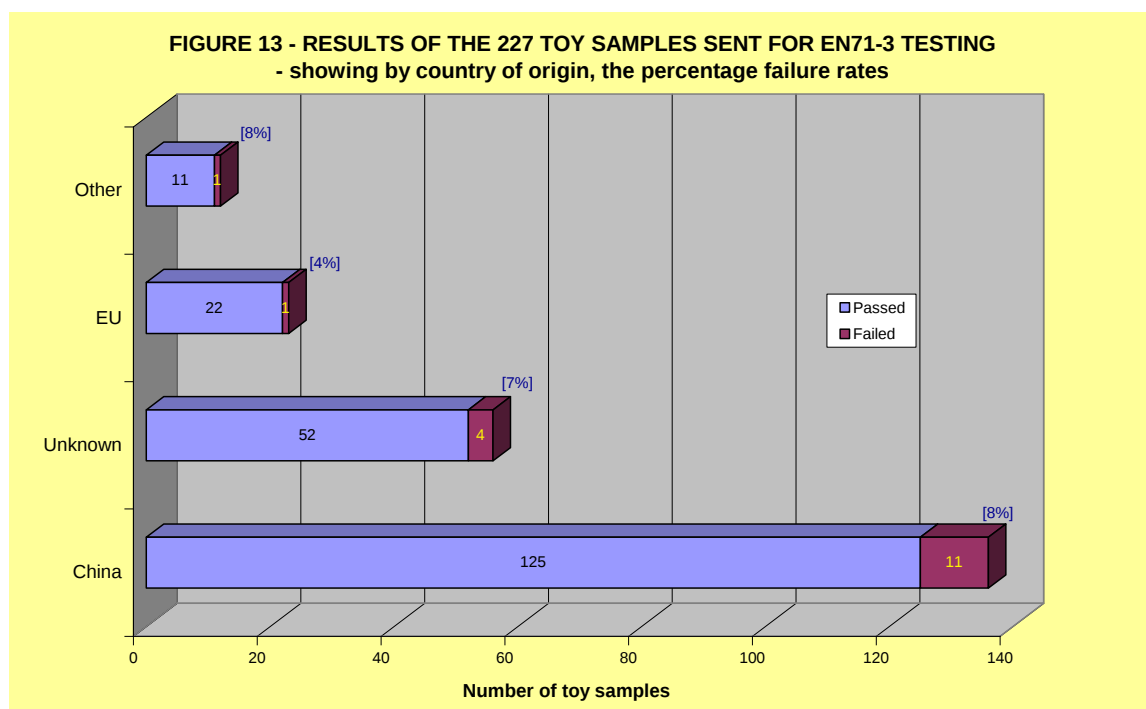
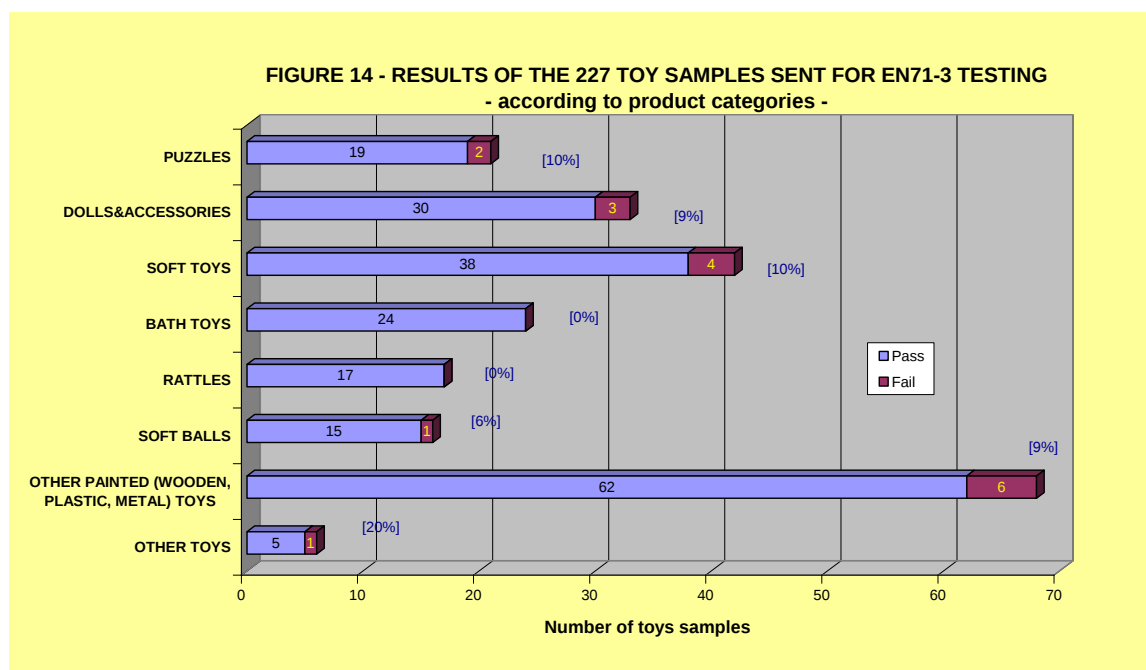


Figure 14 shows the results of the total screened toy samples, according to product categories. These product categories have been agreed upon and developed after extensive discussions. A special guidance document was developed for this purpose which is annexed to this report for reference purposes. Similar to EN71-1 analysis, the highest failures rates are coming from puzzles, soft toys and other painted toys. Other toys represent too much of a small sample to be recognised as a category of its own.



Chemical Analysis

It is important to note that whilst measurements were recorded by XRF hand-held analyzers for all the 8 heavy metals depicted in the EN71-3 standard, only Lead and Chromium were found to be the two heavy metals in excess of the EN71-3 migration limits after the analytical correction in line with the standard requirements itself.

Table 1 below shows that number of failed toys in relation to Chromium and Lead. The lowest, highest and average XRF measurements and corresponding migration of heavy metal measurements, out of those samples which failed are listed within this table.

TABLE 1:

	Toy Samples that failed EN71-3 testing	Total EN71-3 tests that failed within these respective toys	XRF (Screening) ppm			EN71-3 TESTING (Migration of Heavy Metal) mg/Kg		
			Lowest	Highest	Average	Lowest	Highest	Average
Chromium	9	12	976	44800	10189	74	1937	355
Lead	15	18	102	64213	8072	91	4527	702

Figure 15 below gives an indication of the percentage failure found within the 17 failed toys. 41% actually failed in both lead and chromium migration limits whereas only 12% failed in chromium migration limits alone. On the other hand, those which failed only in lead comprised of 47% and therefore, the total number of toys which failed due to higher lead migration limit is $47\% + 41\% = 88\%$. In view of this, further analysis was done on the actual respective lead content measured by the XRF analyzers and the respective EN71-3 failures.

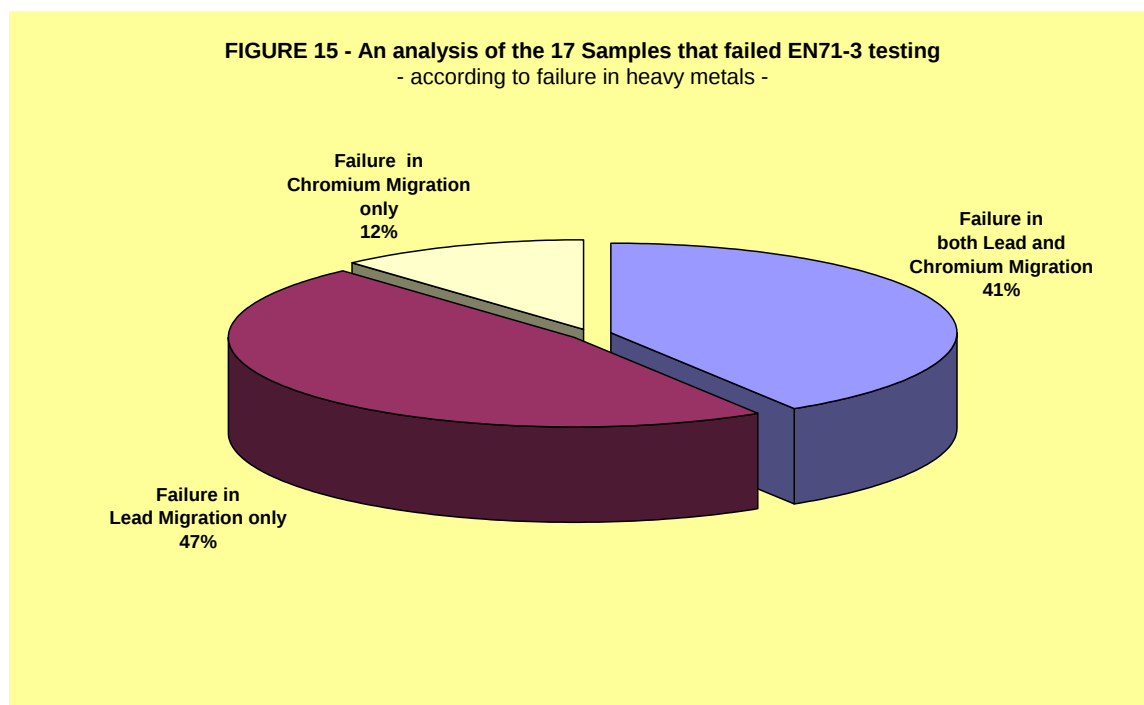
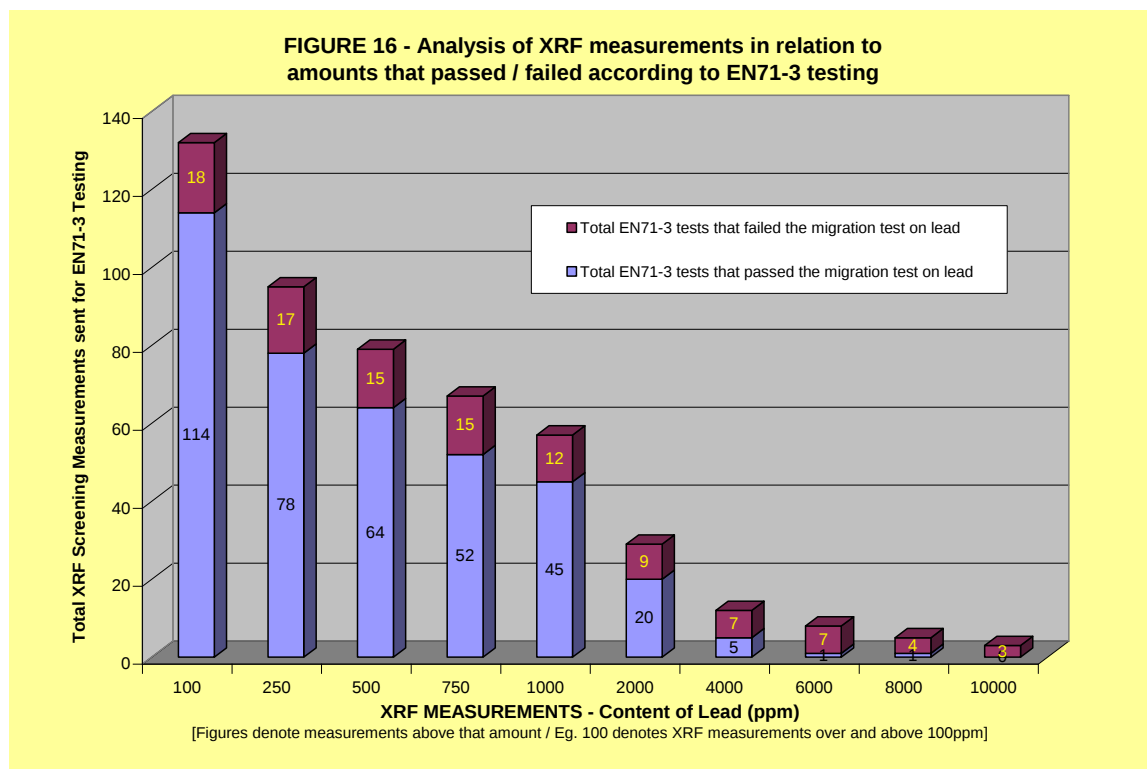


Table 2 below shows the actual data related to the XRF measurements of lead when analysed by the XRF hand-held analyzers as well as the corresponding EN71-3 results.

To take a simple example, the first row shows the number of XRF screening tests that had a measurement of lead content over 100ppm. In total there were 132 XRF screening tests with over 100ppm out of which it resulted that 18 of them were found to fail the EN71-3 testing which represent 14%.

LEAD ANALYSIS	XRF screen test measurements sent for EN71-3 testing	EN71-3 tests that failed	Percentage of EN71-3 failed tests out of total screened XRF measurements
Total XRF screen tests with measurements >100ppm	132	18	14%
Total XRF screen tests with measurements >250ppm	95	17	18%
Total XRF screen tests with measurements >500ppm	79	15	19%
Total XRF screen tests with measurements >750ppm	67	15	22%
Total XRF screen tests with measurements >1000ppm	57	12	21%
Total XRF screen tests with measurements >2000ppm	29	9	31%
Total XRF screen tests with measurements >4000ppm	12	7	58%
Total XRF screen tests with measurements >6000ppm	8	7	88%
Total XRF screen tests with measurements >8000ppm	5	4	80%
Total XRF screen tests with measurements >10,000ppm	3	3	100%



It is important to note that the table above and figure 16 are just shown to give an indication only. One needs to stress the importance that there is no scientific direct correlation between the content of lead and migration of soluble lead.

From the experiences learnt from this joint action, it is also extremely important to know how to actually use the XRF handheld equipment. Inspectors need to be well trained and proper standard operating procedures need to be fully adhered to and fully understood so as to minimise errors in the detection process of heavy metal content. Otherwise, the initial screening exercise might give the market surveillance authority the wrong indication about any toys being analysed.

Concluding Remarks related to EN71-3

- ❑ XRF handheld analyzers seem to be very useful as a screening equipment to minimise the number of EN71-3 testing.
- ❑ Other similar joint action exercises are highly recommended to possibly further reconfirm any trends and analysis in this particular area.
- ❑ Lead and Chromium were the only two heavy metals which failed the EN71-3 migration test.
- ❑ Although the actual samples which failed in the EN71-3 test were not high, lead was by far the predominant heavy metal that actually failed the migration test.
- ❑ The recommendations shown in figures 16 and 17 related to XRF screening exercises may be of particular interest to market surveillance authorities utilising XRF equipment. However, it is important to note that these are only generic indications and nothing else.
- ❑ Although further analysis is needed to further determine their real effectiveness, XRF handheld analyzers seemed to have helped tremendously to zoom in on those toys which would possibly result in non-compliances related to EN71-3 testing.
- ❑ From the experience learnt out of this joint action, it is very important that one is trained properly on how to utilise these analyzers accurately in order to maximise the efficiency and effectiveness of any market surveillance activity. Proper standard operating procedures need to be adhered to meticulously in order to ensure correct measurements of heavy metal content.

5.2 QUALITATIVE RESULTS

The participation level from amongst the respective market surveillance authorities has been reasonably high. Indeed, the Joint Action raised considerable interest from within the TOY-ADCO members too and there were members who also attended the Joint Action meetings. One has to note that particular interest has been raised by the market surveillance authorities from Luxembourg and Cyprus who also participated in some of the Joint Action meetings.

In order to also ensure cross-sharing of information with other EEA market surveillance authorities, each market surveillance authorities from this Joint Action decided to try to establish contact and periodically update their neighbouring market surveillance authorities to inform them on what is being done within this Joint Action.

Indeed, a positive outcome out of this cross-sharing of information was established between the market surveillance authorities of Greece and Cyprus whereby an agreement has been reached between them in this manner. Although Cyprus is actually outside the financial scheme, an agreement was reached with the Greek authorities (who are directly involved in this project) to actually get around 20% of their quota of samples from the Cypriote market instead of gathering them all from the Greek market.

The Turkish authorities have also been involved in this joint action. The sharing of experiences with a country outside the EEA was found to be a positive experience for both sides. It has certainly helped to acquire more best practices and contacts for the Turkish colleagues who were particularly active in this joint action.

With respect to joint tendering, various clear advantages became apparent to market surveillance authorities and indeed from this Joint Action (refer to section 3.5), it is quite clear that market surveillance authorities stand to gain substantially when issuing joint tenders.

In view of the actual cross-sharing of information which has taken place within this Joint Action and also in view of the briefing that takes place on the respective Joint Actions in practically every PROSAFE meeting, including updates made by the respective newsletters, some market surveillance authorities approached PROSAFE to actually help them to issue joint tenders for particular screening equipment. Although as yet this has not been done by PROSAFE in view of other priorities and in order to assess the financial implications related to administering such an initiative, it will certainly be something which will be considered seriously in the coming future.

6 CONCLUDING REMARKS

- THE CONCLUSIONS OF THIS JOINT ACTION DO NOT REPRESENT THE VIEWS OF THE INVOLVED MEMBER STATES OR THAT OF THE COMMISSION BUT IT IS MERELY AN ANALYSIS OF THE FINDINGS FROM WITHIN THE PARTICIPATING MARKET SURVEILLANCE ORGANISATIONS INVOLVED IN THIS JOINT ACTION
- THANKS TO EUROPEAN COMMISSION, IN PARTICULAR DG FOR HEALTH AND CONSUMERS, THIS JOINT ACTION WAS MADE POSSIBLE THROUGH 70% FUNDING FROM THE COMMISSION, WITH THE REMAINING 30% BEING FUNDED DIRECTLY BY THE PARTICIPATING ORGANISATIONS THEMSELVES.
- COORDINATION WITH DG-ENTERPRISE WAS ALSO PREVALENT THROUGHOUT THIS JOINT ACTION, AS WELL AS WITH THE TOY-ADCO MARKET SURVEILLANCE GROUP.
- IT IS EXPECTED THAT THE RESULTS AND ANALYSIS OF THIS JOINT ACTION, IN PARTICULAR THOSE RELATED TO RISKS RELATED TO SMALL PARTS, WILL ALSO BE TRANSMITTED TO CUSTOMS AUHTORITIES IN ORDER TO IMPROVE THEIR INVESTIGATIVE AND INSPECTION CONTROL ON TOYS FOR CHILDREN UNDER 36 MONTHS.
- THIS JOINT ACTION ANALYSIS SHOULD TRIGGER MORE INTEREST IN MARKET SURVEILLANCE AUTHORITIES TO PERFORM FURTHER SIMILAR JOINT ACTIONS IN THE FUTURE.
- GUIDANCE DOCUMENTS ARE BEING DEVELOPED TO ASSIST NOT ONLY THE INVOLVED PARTICIPATING MARKET SURVEILLANCE ORGANISATIONS IN FUTURE SURVEILLANCE ACTIVITIES BUT POSSIBLY ALL OTHER MARKET SURVEILLANCE AUTHORITIES INTERESTED IN THESE PARTICULAR AREAS.
- FURTHER ACTION IS NEEDED REGARDING TOYS WITH POSSIBLE DETACHABLE PARTS SO THAT THE AMOUNT OF NON-COMPLIANCES ARE FURTHER REDUCED.
- MORE ANALYSIS AND SIMILAR JOINT ACTIONS ARE NEEDED IN THE AREA OF XRF SCREENING AND EN71-3 TESTING IN ORDER TO COME UP WITH ADEQUATE PRACTICAL RECOMMENDATIONS FOR MARKET SURVEILLANCE AUTHORITIES IN THIS PARTICULAR AREA.
- EXTERNAL STAKEHOLDERS WERE ALSO INVOLVED THROUGHOUT THE VARIOUS OPEN SESSIONS ORGANISED SPECIFICALLY FOR THEM. THIS WAS CRUCIAL IN ORDER TO ENSURE THAT ALL KEY PLAYERS WERE COMPLETELY INVOLVED AND THAT SUGGESTIONS AND RECOMMENDATIONS WERE TAKEN ON BOARD TO FURTHER IMPROVE THE OVERALL EFFECTIVENESS OF PRODUCT SAFETY.