

# Layman's Report

## JAHARP2022-05

Asbestos in brakes



***"Every day across the EU, invisible guardians work behind the scenes to keep non-compliant products off the shelves and fairness on the playing field.***

***Because compliance is not just a label— it's a process that never stops."***

PROSAFE - The Product Safety Forum of Europe

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# Contents

- List of abbreviations ..... 5
- Executive Summary ..... 6
- Highlights and key results..... 7
- JAHARP2022 Omnibus ..... 8
- Introduction to JAHARP2022-05..... 9
  - Participating authorities ..... 9
  - Timeline of the Joint Action ..... 9
- Asbestos .....10
  - Laboratory tests .....11
- Type-approval .....12
  - Document inspections .....12
  - Laboratory tests .....13
- Risk assessment and follow-up measures .....14
- Recommendations.....15
- Conclusions and lessons learned .....16

## List of abbreviations

<b>ADCO</b>	Administrative Cooperation Group
<b>CE</b>	European Conformity (Conformité Européenne)
<b>DG GROW</b>	Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
<b>DoC</b>	Declaration of Conformity
<b>EEA</b>	European Economic Area
<b>EISMEA</b>	European Innovation Council and SMEs Executive Agency
<b>EMC</b>	Electromagnetic Compatibility
<b>EN</b>	European Standards
<b>EO</b>	Economic Operator
<b>EU</b>	European Union
<b>GA</b>	Grant Agreement
<b>ICSMS</b>	Information and Communication System for Market Surveillance
<b>ISO</b>	International Organization for Standardization
<b>MS</b>	Member State
<b>MSA</b>	Market Surveillance Authority
<b>OE</b>	Original Equipment
<b>OJ</b>	Official Journal of the European Union
<b>REACH</b>	Registration, Evaluation, Authorisation and Restriction of Chemicals
<b>R78</b>	UNECE Regulation No. 78
<b>R90</b>	UNECE Regulation No. 90
<b>SEM-EDS</b>	Scanning Electron Microscopy/Energy Dispersive X-ray Spectroscopy
<b>UNECE</b>	Economic Commission for Europe of the United Nations
<b>VLOP</b>	Very Large Online Platform
<b>WP</b>	Work Package

## Executive Summary

The [Joint Action on Harmonised Products 2022-05](#) (JAHARP2022-05) started in June 2023 and ended in July 2025.

This was the **first EU-wide coordinated market surveillance activity focusing on non-original aftermarket brake pads for vehicles falling in category L1e B (mopeds) and L3e (motorcycles).**

In particular, the national authorities involved in the project tested 105 samples for the presence of asbestos. Among the products which did not present traces of asbestos, the participants selected 30 which were then tested against the UNECE Regulation No. 90<sup>1</sup> (R90), Annex 7, defining the requirements for replacement brake lining assemblies for vehicles of category L.

The levels of noncompliance observed are:

- ✚ **24% of the models tested were non-compliant**, either for asbestos or type-approval requirements.

- ✚ **Asbestos was present in 8%** of the tested brake pads.

- ✚ **60% of the 30 products tested against type-approval requirements were non-compliant.**

- ✚ **Administrative non-conformities were found for 91%** of the products for which the approval documentation, product packaging and markings were examined.

The MSAs considered the presence of asbestos as a serious risk, while the non-conformities against R90 and the administrative non-conformities were deemed as a low risk.

**Compulsory withdrawal from the market** was requested for the 9 samples with asbestos traces.



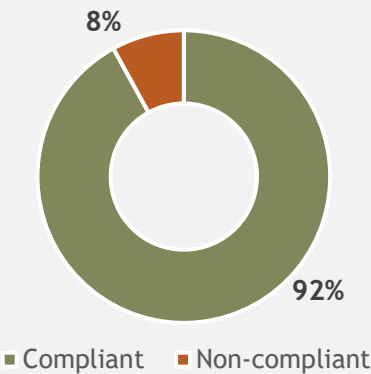
## Highlights and key results

**Caution!** The results are based on products that were sampled from the markets in the participating countries by experienced market surveillance inspectors. As in any routine market surveillance activity, the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

### ASBESTOS

105  
Tested

#### Test Results



9 compulsory  
withdrawals

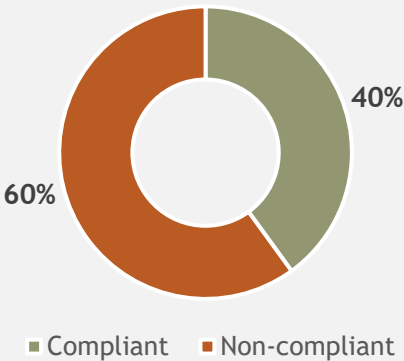


9 Safety Gate  
notifications

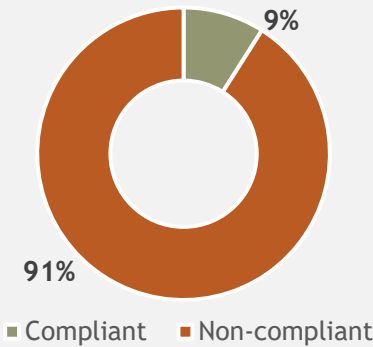
### TYPE APPROVAL

30  
Inspected  
and tested

#### Test results





#### Document checks



# JAHARP2022 Omnibus

The Joint Market Surveillance Action on HARmonised Products 2022 (JAHARP2022) is a portfolio of projects co-funded by the European Union, comprising seven product areas and two horizontal/capacity building activities, implemented in synergy.

The shared strategic objective of JAHARP2022 is twofold:

-  Remove non-compliant products from the Single Market
-  Support the implementation of Regulation (EU) 2019/1020<sup>2</sup> on Market Surveillance

Market Surveillance on products entering the Single Market is the responsibility of national authorities, which have to adhere at the same time to European and national legislation, in some cases causing differences in the implementation.

For this reason, and because of the emerging challenges that Market Surveillance Authorities (MSAs) face in their daily work, joint actions are an essential tool to promote the coordination and harmonisation of practices and methodologies among European authorities, by conducting transnational campaigns focused on specific products and legislations and favouring the exchange of information and best practices.

An overview of the projects in the JAHARP2022 is provided in the figure below.



**Caution!** The results are based on products that were sampled from the markets in the participating countries by experienced market surveillance inspectors. As in any routine market surveillance activity, the results represent the targeted efforts that authorities undertake to identify non-compliant products. They do not give a statistically valid picture of the market situation.

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<sup>2</sup> Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011

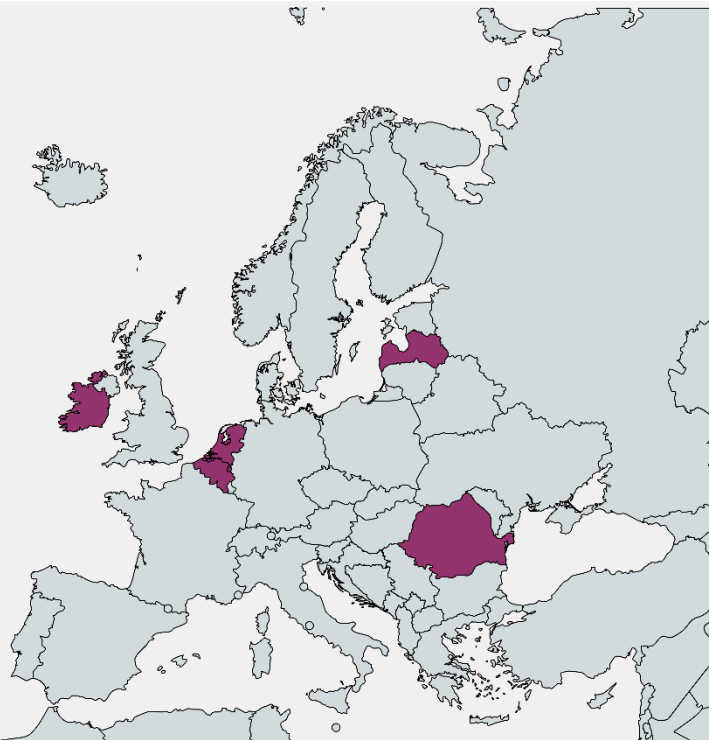


# Introduction to JAHARP2022-05

## Participating authorities

The Joint Action was undertaken by five (5) Market Surveillance, Health Authorities and Type-approval authorities from 5 EU countries:

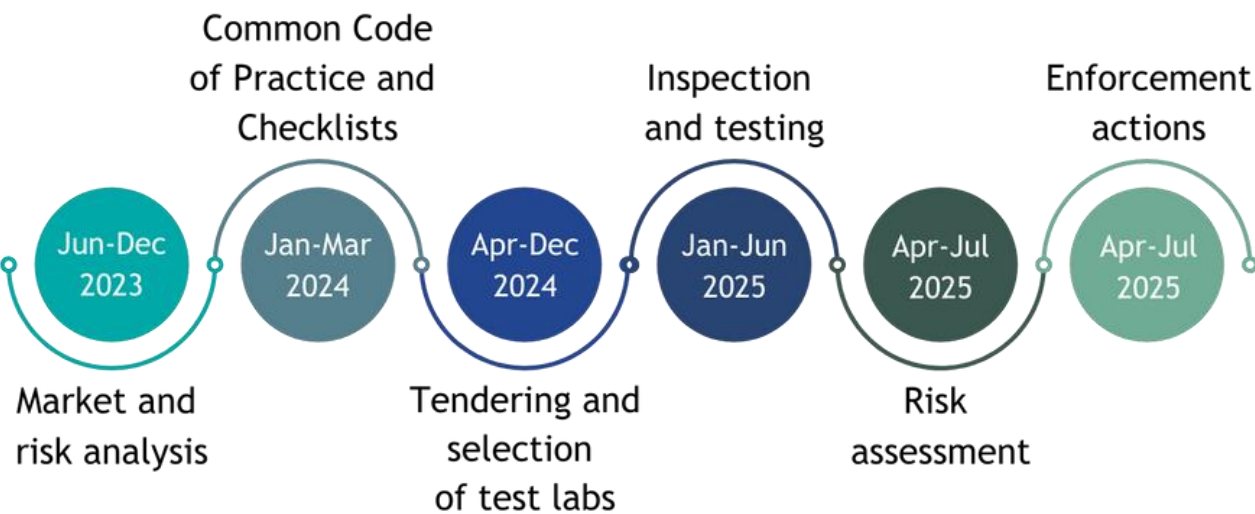
**Belgium, Ireland, Latvia, Netherlands, and Romania.**



## Timeline of the Joint Action

The Joint Action followed the methodology of the typical market surveillance cycle, starting with market and risk analysis which informed the decisions on the products to be selected for document inspections and for laboratory testing. One laboratory was selected through a tender procedure aimed at identifying the test body offering high expertise at the best value for money. Based on the results, the national authorities assessed the risks posed by non-compliant products to consumers and the market and took appropriate enforcement actions.

The timeline of the project activities is shown in the graph below.



## Asbestos

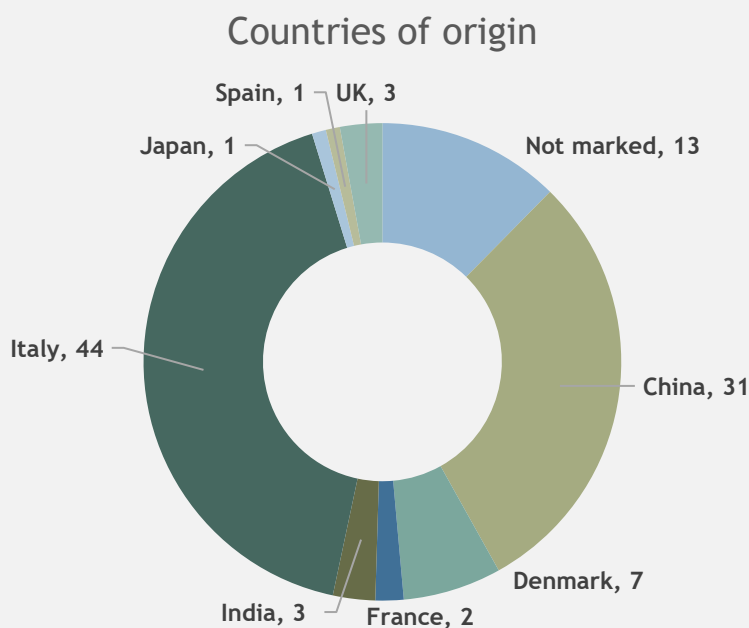
The Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)<sup>3</sup> prohibits the manufacture, placing on the market and use of asbestos fibres and of articles and mixtures containing these fibres added intentionally. Furthermore, UNECE Regulation No 90 (R90), paragraph 5.1(d) states “*brake linings shall not contain asbestos*”.

Past national market surveillance activities had found asbestos traces in aftermarket replacement brake pads for category L1e-B vehicles. This category of vehicle is defined as a **two-wheeled moped** according to Regulation (EU) 168/2013<sup>4</sup>. Due to the popularity and low price of these vehicles, replacement brakes pads for mopeds are widely available to consumers.

The project group decided to target this category, together with L3e vehicles (**two-wheeled motorcycles**) given that brake pads used for both categories are often interchangeable.

Participants paid particular attention to the handling of the samples, in order to ensure that this was done in a safe manner and avoid potential contact with asbestos. Protective measures applied included the use of appropriate personal protective equipment (PPE), such as gloves and face masks. The samples were also well sealed in appropriate plastic bags before being shipped to the laboratory for testing.

Products were sampled from physical and online shops, and both from EU and non-EU manufacturers. The graph below shows the country of origin of the 105 samples selected.



<sup>3</sup> [Regulation \(EC\) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals \(REACH\), establishing a European Chemicals Agency](#)

<sup>4</sup> [Regulation \(EU\) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles](#)

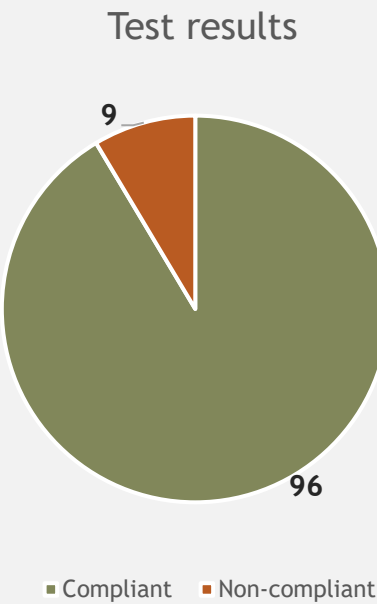
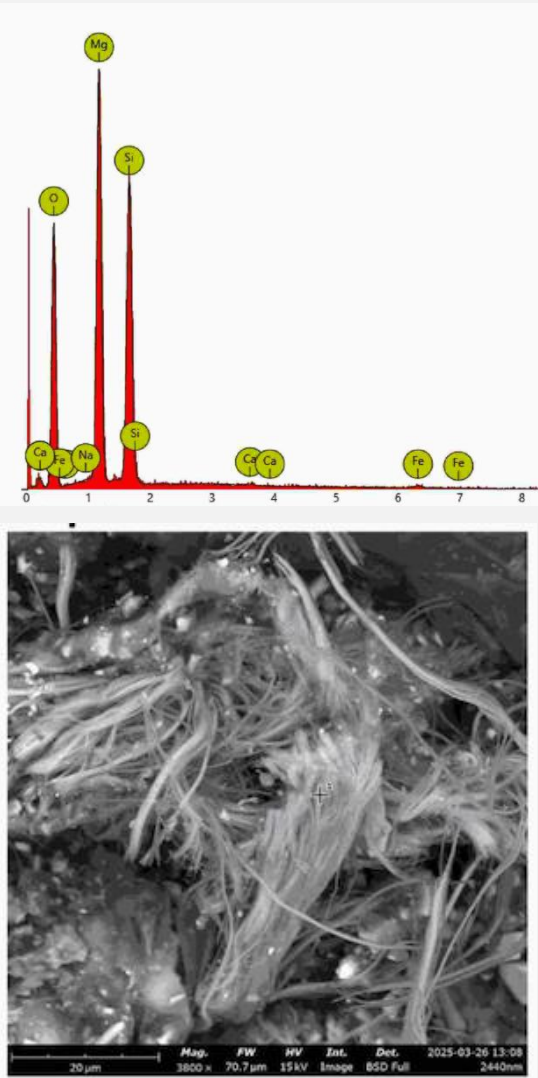
## Laboratory tests

The UNECE Regulation does not specify a test method for verifying the presence of asbestos in brake pads, therefore the group, together with the selected laboratory, decided to use ISO 22262-1:2012 *Sampling and qualitative determination of asbestos in commercial bulk materials*.

This method uses the Scanning Electron Microscopy/Energy Dispersive X-ray Spectroscopy (SEM-EDS) technique, which uses an electron beam to create high-resolution images of a sample's surface (SEM) while simultaneously identifying its elemental composition by measuring the X-rays emitted from the sample (EDS).

An example of the evaluation trace provided in test reports from the technical service is shown below, and it illustrates the presence of chrysotile or white asbestos, which is the most commonly encountered form of asbestos.

**Nonconformities were identified in 9 (8%) of the 105 samples subject to testing.**



## Type-approval

Type approval for brake pads is regulated by the UNECE R90 and ensures that replacement parts perform as well as original equipment (OE) through stringent laboratory and vehicle tests. This includes tests for speed sensitivity, cold and hot performance, and material strength to guarantee safety and stability. The regulation requires products sold in the EU to carry an approval mark indicating their conformity to R90 standards.

Past actions had revealed that a high number of replacement brake pads on the market were not conform with the Regulation and did not have the necessary markings and approvals. Given the importance of this aspect, the project decided to conduct document inspection and type-approval testing on 30 samples.

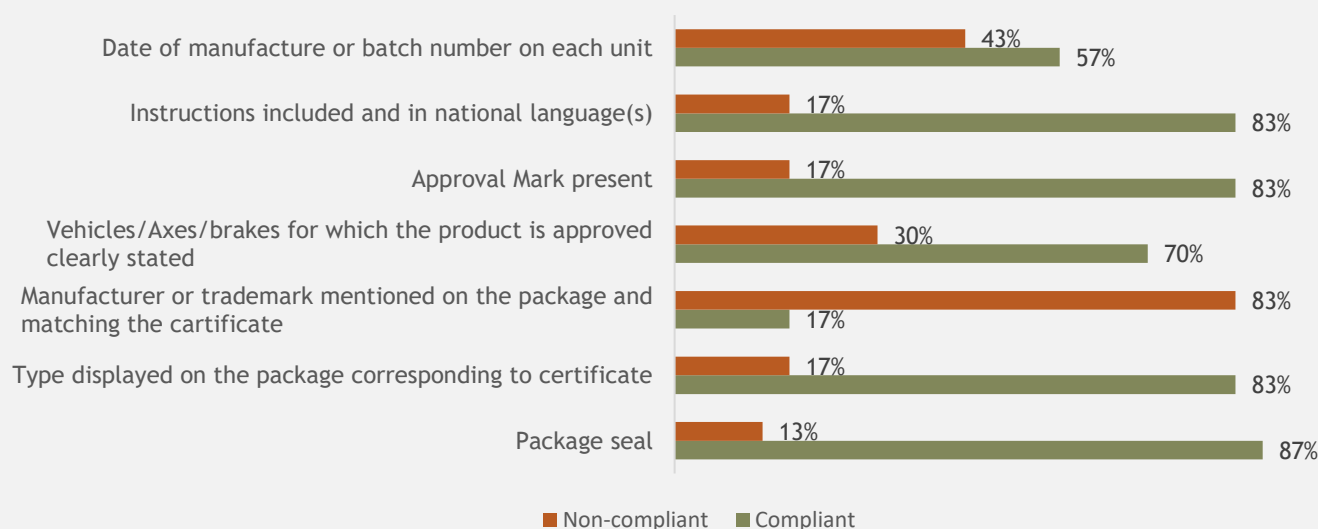
## Document inspections

The project participants requested technical documentation of the selected samples from the respective Type Approval Authorities and verified the compliance of the approval certificates. They also checked the product packaging and markings.

The checklist developed by the project to assess the documentation compliance collected the following information:

- ✚ Full product description
- ✚ Economic operator details
- ✚ Type of seller during sampling
- ✚ Place of sampling (physical shop, online, direct from economic operator etc.)
- ✚ Manufacturers' name, trademark, or identification mark
- ✚ Model type
- ✚ Intended use of the product
- ✚ Product code/part number
- ✚ Product approval certificate conformity
- ✚ Product packaging and marking

**91% of the inspected products were assessed as non-compliant with administrative requirements**, with 62% of them presenting multiple non-conformities. The main non-conformities observed are shown in the graph below.



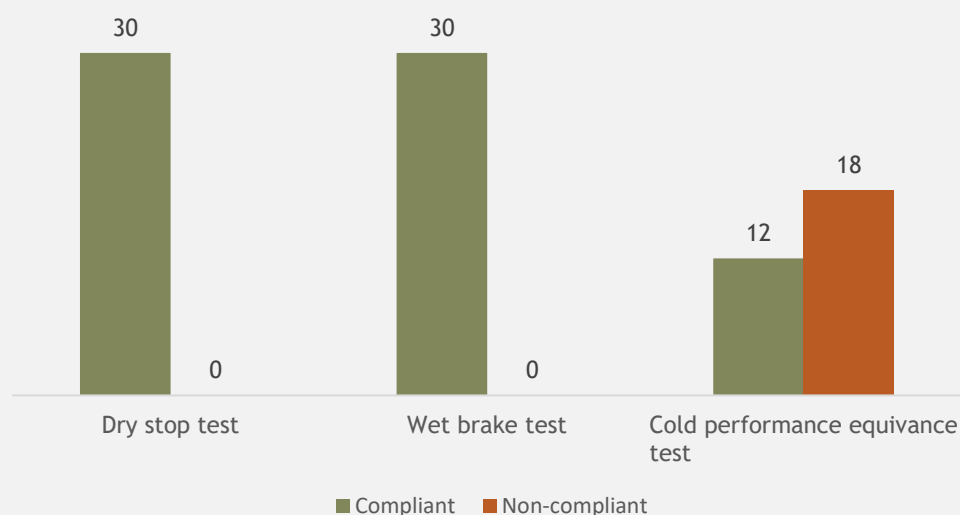
## Laboratory tests

The product testing programme consisted of vehicle-based testing under UNECE Regulation No 90, Annex 7, “Requirements for replacement brake lining assemblies for vehicles of category L”. It included:

- ✚ **Preparation and instrumentation of the test vehicle** - determination of the vehicle which is representative for the replacement brake lining assembly and fitting of the brake lining assembly on the vehicle until a fixed burnishing procedure is established - Clauses 1.1, 1.2 of Annex 7 UNECE Regulation 90.
- ✚ **Conformity with UNECE Regulation No.78**<sup>5</sup>(referenced in annex 7 UNECE Regulation 90):
  - **Dry stop test** (evaluates a vehicle's braking performance on a dry road surface by measuring the stopping distance starting from a specific speed)
  - **Wet brake test** (measure how much a vehicle's braking performance is reduced when the brakes are wet).
  - **Cold performance equivalence test** (evaluates a replacement brake pad's friction and deceleration performance at normal operating temperatures, typically below 100°C. The results of the test must be within +/- 15% of those of the original material).

No nonconformities were identified for the 30 R90 samples subject to the dry stop and wet brake test.

18 (60%) of the samples were non-compliant against the cold performance equivalence test.



<sup>5</sup> [Regulation No 78 of the Economic Commission for Europe of the United Nations \(UN/ECE\) – Uniform provisions concerning the approval of vehicles of category L with regard to braking](#)

## Risk assessment and follow-up measures

The participating authorities conducted risk assessment in order to evaluate the potential harm the non-compliant products pose to consumers. This process involves analysing the severity of potential harm and the probability of it occurring, then comparing the results to determine the overall risk level.

As a result of this exercise, the project group considered **the presence of asbestos as a serious risk**, due the severe health risks for consumers and workers associated with this material.

The non-conformities with the cold performance equivalence were, on the other hand, considered as a low risk.

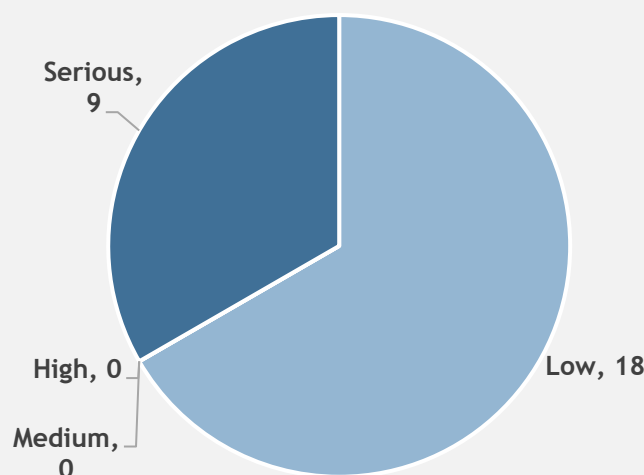
Administrative non-conformities related to the technical documentation, packaging and markings were also considered as low risk.

As a result, **compulsory withdrawals were requested for the 9 products which revealed traces of asbestos**. These models were also notified on the [Safety Gate](#), the EU rapid alert system for dangerous non-food products.

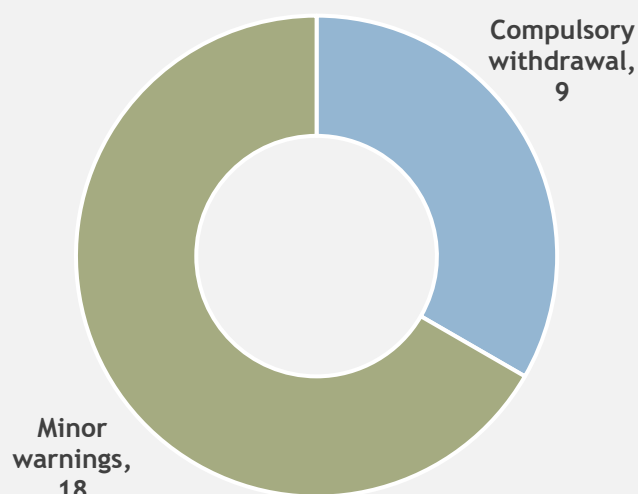
Minor warnings were issued to the Economic Operators responsible for the products non-compliant with type-approval requirements.

The graphs below show the assessed risk levels and the enforcement actions taken by the national authorities.

Risk levels




Enforcement actions



## Recommendations

Based on the non-conformities observed, the market surveillance authorities drafted some recommendations for Economic Operators and for consumers, together with some policy recommendations for the European legislative and standardisation bodies. These are presented below:


### Recommendations for Economic Operators



**Packaging, Markings and Instructions:** Economic Operators should ensure that the products have all needed markings and that user instructions are available in the national languages of the Countries where they are sold. Packaging should display all necessary information, including number of replacement units, their types and vehicles/brakes for which these are approved.

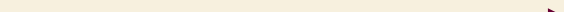
**Safety Gate:** Consumers should consult the Safety Gate portal to check for products subject to corrective measures.

### Recommendations for Consumers



**Purchasing from VLOPs:** Consumers should pay particular attention when purchasing products from Very Large Online Platforms (VLOPs) and avoid buying them when clear information on the manufacturer, product type and manufacturing date is not provided.

### Policy recommendations:



**Asbestos testing:** Regulation No. 78 would benefit from the addition of a testing method or evaluation procedure for the determination of the presence of asbestos in aftermarket replacement brake pads for vehicles of category L.

**Harmonisation:** Further harmonisation at the European level of enforcement measures taken against non-compliant products purchased via online shops is required.

## Conclusions and lessons learned

JAHARP2022-05 marked the **first-ever joint action focused on aftermarket replacement brake pads for category L vehicles across the EU-27**.

This initiative underscored the critical importance of reviewing technical documentation to understand how manufacturers interpret compliance with UNECE Regulation No. 90. The project revealed a notably high level of administrative non-conformities among the inspected products: **91% of R90-labelled brake pads inspected were found to be improperly marked or packaged, and 62% exhibited multiple omissions in both product and packaging information.**

These shortcomings present a significant challenge for consumers, particularly when purchasing through **Very Large Online Platforms (VLOPs)**, where product descriptions were often found to be inadequate and lacking essential approval details.

The success of this joint action was strongly supported by initial intelligence from the ADCO Automotive group and insights gained from [JAHARP2021-03](#), a previous joint action targeting aftermarket brake pads for category M vehicles. Furthermore, early-stage risk assessment discussions contributed to the effectiveness of the risk evaluation conducted after product testing.

The project also highlighted the need for a **harmonised enforcement approach** for aftermarket replacement brake pads for category L vehicles, especially those sold via non-EU online marketplaces.

Overall, the activity facilitated valuable knowledge transfer and skill development among participating market surveillance authorities. It also reinforced the importance of including non-original aftermarket replacement brake pads as a **priority category in future joint actions**.

JAHARP2022-05 was part of the [JAHARP2022](#) portfolio of joint actions, involving 25 MSAs from 16 Countries and coordinated by [PROSAFE](#). The Joint Actions focused on seven product categories falling under different Safety and Energy Efficiency legislations and on the harmonisation of market surveillance methodologies across member States.





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