

# RESEARCH TO BUILD A LIST OF GROUP-2 PRODUCTS IN THE FIELD OF SPORTS

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## Abstract:

Through researching theoretical basis and collecting information on the management, trading, production and import of goods related to equipment, training and competition tools; by the method of calculating the overall risk level of sport products, the research has identified a list of products likely to cause insecurity, which belong to sports facilities and also specific sports. These equipment, even when carefully transported, stored, preserved and reasonably used for the right purpose, still pose potential harm to surrounding people and the environment. This research helps managers take state management measures by applying national standards and corresponding technical regulations for the list of proposed products.

**Keywords:** Product portfolio, Group 2 products, sports.

## INTRODUCTION

The quality of products and goods is not only an important measure to affirm the existence of enterprises but also a standard in economic, trade relations and competitiveness of the economy. They are directly related to safety, hygiene, human health, property, and the environment. In the context of integration and globalization, besides creating favorable conditions for circulation and exchange of goods, countries also need to prevent low-quality and unsafe products and goods to ensure consumers' rights, protect domestic production and also national interests. Therefore, the Ministry of Culture, Sports and Tourism has a policy of promoting research and development of standards and technical regulations in the field of culture, sports and tourism, and has closely directed these activities at the relevant functional agencies, including the construction of the list of group 2 products and goods in the field of sports, managed by the Ministry of Culture, Sports and Tourism. However, according to the preliminary survey, in recent years, the work of developing standards for the field of sport has received little attention, so national standards and technical regulations on safety and quality management for training and athletic equipment have not been developed yet. Therefore, it is necessary to build a list of group 2 products in the field of sports in order to

identify the list of products and goods that are likely to cause unsafe, thereby create effective management solutions for the current production, distribution, import and export of goods and equipment for sports.

## RESEARCH METHODS

The research has used the following methods: Methods of analyzing and synthesizing documents; Expert method; Methods of investigation and survey; Systematic research method; Statistical mathematical methods.

Group 2 products: Products and goods that are likely to cause unsafety even in the process of transportation, storage, preservation and rational use for proper purposes; that is, products and goods that are in transport, storage, preservation and even when used reasonably and for the right purposes still have the potential to cause harm to people, animals, plants, properties and environment. The likelihood of a product or goods being unsafe may be determined based on its chemical, physical and biological nature, as well as the structure and operating principle or based on the process of transportation, storage, preservation and usage. For products of group 2, producers must declare their conformity with the relevant technical regulations. The announcement of conformity is done in accordance with the law on standards and technical regulations.

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## RESULTS AND DISCUSSION

### 1. The objective of constructing a list of group 2 products

Develop and propose a list of products in the field of sports that may cause insecurity during transportation, storage, preservation, which even with correct usage and proper purposes still pose a potential threat to people and the environment, at the same time belong to the group of training and competition equipment of sport establishments and specific sports (the list of group 2 products and goods in the field of sports).

Survey the capacity of inspection, testing and certification of group 2 goods and products in the field of sports and physical training at functional agencies in Vietnam, and from there, propose measures of state management through the announced applicable national standards and corresponding technical regulations for the equipment and facilities of training establishments and sports competitions.

### 2. Methods of determining the likelihood of unsafe sports products and the actual status of group 2 products in the field of sports

Risk assessment activities: Risk assessment is the quantitative or quantitative value determination of risks associated with a specific situation or recognized threat (also known as hazard). The quantification of risks (R) requires a calculation based on severity (C) of the problem when the risk actually occurs and the probability of the problem (N) occurring. The level of risk tolerance is based on the cost and complexity of the remedies to avoid the risk. Therefore, if the complexity of the remedies and the cost of the countermeasures exceed the expected loss in the event of a risk, that risk is within the acceptance limit.

**The risk sequence is assessed:** through the following 3 basic steps:

- Step 1: Identify potential internal risks of the product (when in use, maintenance, and transportation...) and determine its severity.
- Step 2: Determine the likelihood of injury due to potential risks in the product.
- Step 3: Combine the severity of the injury caused by a product's potential risk with the

likelihood of it occurring to obtain the product's level of risk.

**Formula to assess risk level:** According to the guidance of the European Commission and ASEAN this can be applied to products in the field of sports:

$$R = C \times P \times N$$

In which:

- R: is the overall risk level of the product.
- C: is the index of unwanted risk when using the product.
- P: is the probability of unexpected results.
- N: Popularity of the product on the market.

### 3. Building a list of group 2 products in the field of sports

#### 3.1. Steps to conduct the survey

Step 1. Develop survey questionnaire for inquiries, surveys, and collect information from 800 samples of 4 target groups: Managers(80 samples), Product users (450 samples), People who preserve and store the products (120 samples) and people who transport the products (150 samples).

Step 2. Conduct inquiries and surveys to build a product catalog in 3 areas: Hanoi, Da Nang, Ho Chi Minh City (with the number of 800 questionnaires).

Bước 3. Perform the synthesis of survey results and data.

Bước 4. Survey the capacity of product quality assessment at some of the product quality testing and inspection units in: Hanoi, Da Nang, Ho Chi Minh City on target groups: National sports training center (Hanoi, Da Nang, Ho Chi Minh City = 03 units), Sports Universities (Hanoi, Da Nang, Ho Chi Minh City = 03 units), Departments and units from the General Department of sports (05 sports), Products transporting, storing and preserving companies (05 units), High schools, secondary schools (Hanoi, Da Nang, Ho Chi Minh City = 05 units) and Companies manufacturing and trading sports equipment (04 units).

#### 3.2. Survey results

The survey results of the products' quantity, divided by group and field are presented in Table 1.

**Table 1. Overall quantity of sport products by groups and fields at the survey units**

<b>№</b>	<b>Group of products</b>	<b>Quantity</b>
1	Products related to sport facilities	115
2	Products related to sports nutrition	64
3	Products related to extreme sports	158
4	Products related to high-performance sports training and competition	537
5	Sport products for the mass public	206
	<b>Overall</b>	<b>1080</b>

The identification of the list of products and goods which are likely to cause insecurity (products and goods in group 2) is based on: The likelihood of unsafe products and goods and the ability of state management in each period. At the same time, the likelihood of a product or goods being unsafe may be determined based on one or some of these factors: chemical, physical, biological nature, structure, operating principles and the process of transportation, storage, preservation and usage. Based on the results of the inquiries and surveys on the list of goods and products in the field of sports at agencies and units nationwide, through 1080 people of the

target groups: managers; products' users; people who preserve and store the products and people who transport the products, the research has initially built a list of group 2 products in the field of sports (table 2).

Table 2 shows that: The initial research has identified a list of 18 group-2 products in the field of sports. In addition, the research also conducted seminars to consult managers, scientists, experts, and professional staff... about determining the list of group 2 sports products. The obtained results also gave similar results. Based on the results of building the list of goods in group 2 (table 2), the research

**Table 2. Results of data processing and determination of group 2 products in the field of sports (n = 800)**

<b>№</b>	<b>Product name</b>	<b>Sport</b>	<b>Number of votes</b>	<b>Ratio %</b>	<b>Total risk factor score</b>	<b>Average risk factor</b>
1	Jumping board	Diving	120	15.00	930	7.75
2	Sword, protective armor	Fencing	92	11.50	126.96	1.38
3	Tennis ball machine	Tennis	89	11.13	641.69	7.21
4	Guns and ammunition	Shooting	103	12.88	370.8	3.6
5	Pole	Pole vault	115	14.38	118.45	1.03
6	Bars	Gymnastics	135	16.88	788.4	5.84
7	Hanging rings	Gymnastics	94	11.75	521.7	5.55
8	Balance beam	Gymnastics	99	12.38	690.03	6.97
9	Pommel horse	Gymnastics	84	10.50	540.12	6.43
10	Daoshu, sword, spear	Wushu	119	14.88	959.14	8.06
11	Bow and arrow	Archery	107	13.38	562.82	5.26
12	Javelin	Javelin throw	117	14.63	490.23	4.19
13	Pool cleaning chemical	Swimming	143	17.88	1,041.04	7.28
14	Starting pedal	Athletics	132	16.50	691.68	5.24
15	Hurdle	Athletics	128	16.00	427.52	3.34
16	Protective armor	Taekwondo	90	11.25	244.8	2.72
17	Protective armor	Karate	90	11.25	260.1	2.89
18	Golf club	Golf	85	10.63	353.6	4.16

Table 3. List of products proposed by the testing units

N <sup>o</sup>	Product name	Sport	Standard
1	Single bar	Gymnastics	ISO 379:1980
2	Parallel bar	Gymnastics	ISO 378:1980
3	Ladder, steps and handrail of swimming pool ladder	Swimming	EN 13451-2:2001
4	Ventilation door, pool water	Swimming	EN 13451-3:2011
5	Warm-up platform	Swimming	EN 13451-4:2001
6	Equipment related to swimming lanes	Swimming	EN 13451-5:2001
7	Diving bridge, springboard	Swimming	EN 13451-10:2004
8	Mobile swimming pool and movable partition	Swimming	EN 13451-11:2004

conducted a test on the ability to test and certify of Technical Centers of Standards and Quality in Vietnam. The results show that there are 08 products and goods (Table 3) that the centers have sufficient capacity and means to assess.

These product categories may be used as a basis for the Government, the Ministry of Culture, Sport and Tourism, and related agencies to formulate and propose state management measures on quality, regulations and ways of appointing product assessment organizations, suitable for product quality in manufacture, export, import and circulation of sport-related products on the market

From the results obtained during the study, on July 10, 2019, The Ministry of Culture, Sports and Tourism has issued Decision No. 2415 / QĐ-BVHTTDL approving the list of unsafe products and goods under the management of the Ministry of Culture, Sports and Tourism, including products in the published research results (table 3). On that basis, the Ministry of Culture, Sports and Tourism assigns the General Department of Sports and the heads of related agencies and units to formulate national technical regulations for products on the list of group 2 products in accordance with the State management policy.

**CONCLUSION**

1. The study has identified theoretical and practical basis on sports-related products, belonging to sports establishments and specific sports, that might cause unsafety during transportation, storage, maintenance, and even

when properly used for rightful purposes, they still pose potential threat to the surrounding people and environment. At the same time, it is clarified that the orientation of product regulations based on the level of risk applied by countries around the world is suitable for the practical conditions in Vietnam.

2. A theoretical and practical basis on methods of calculating and assessing risk levels for sports products was built. And from that basis built a list of group 2 products in the field of sports with 18 specific products, including 8 products in group 2 that the inspection units in Vietnam have enough capacity to accurately assess.

3. The Government and sport-related agencies need to elaborate and propose state management measures on quality, regulations and ways of appointing product assessment organizations for product quality in production and export, import and circulation of sports products in the market (such as monitoring inspection and certification of product conformity; State quality control before customs clearance for import and export goods...).

**REFERENCES**

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 2. National standards: TCVN 8793:2011, TCVN 8794:2011, TCVN 3907:2011, TCVN 3981:1985, TCVN 4603:1988.  
 3. EU Risk Assessment Guidelines for non-food Consumer Products (EU Council).