Task O1/A1

COMPARATIVE STUDY ON THE NORMATIVE FOR APPLYING OF NANOMATERIALS ON STONE PRODUCTS IN ITALY

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1. INTRODUCTION

The use of nanomaterials is representing a revolution in improving the performance of products made from natural stone. The mechanical characteristics of stone materials have increased their properties thanks to the use of coatings and surface treatments based on the application of nanoparticles and nanocomposites. But at the same rate as the quality of the material has increased with the application of these nanocomposites, the safety of workers is being greatly compromised. Nanomaterials are an invisible threat to workers' health.

Despite the advantages they offer, many workers are not aware that they are working with them, and their harmful effects are not yet clear. Numerous studies stablish that there are proven health risks linked to various manufactured nanomaterials, which, given their size, can interact at the cellular level.

This report is included in the task “O1-A1. Comparative study on the normative for applying of nanomaterials on stone products”, corresponding to Intellectual Output 1 " Guideline of risks, health and environmental prevention measures in safe production and use of nanomaterials in Stone Sector" of the NanoSafe project.

A comparative study report has been prepared on the current regulations concerning the application of nanomaterials in stone products in the partner countries and in the European Union, including technical, occupational health and safety and environmental protection requirements.

This document provides the target group with an updated version of all published regulations. It has also enabled the consortium to develop the training environment on safety in the application of nanotechnology in accordance with the regulations on safety at work.

All the partners took part in this activity in a collaborative effort to make available to society, in a more accessible and simplified form, all the regulatory measures established in terms of health and safety and risk prevention by the competent authorities.

This report and all the information about the project are available in the following url:

- NanoSafe project web: https://www.nanosafeproject.eu/

2. ITALIAN NORMATIVE FOR APPLYING OF NANOMATERIALS ON STONE PRODUCTS

Nanomaterials related Italian standards:

	
D.Lgs 81/2008 Titolo 9 – sostanze pericolose – capo I (artt. 221-233) Protezione da agenti chimici	D.Lgs 81/2008 Section 9 dangerous substances – Paragraph I (clauses 221-233) chemical protection
D.Lgs 81/2008 Titolo 9 – sostanze pericolose – capo II (artt. 234-245) Protezione da agenti cancerogeni e mutageni	D.Lgs 81/2008 Section 9 dangerous substances – Paragraph II (clauses 234-245) Protection from carcinogens and mutagens
D.Lgs 81/2008 Titolo 11 - protezione da atmosfere esplosive – Capo I (artt. 287-288) Disposizioni generali	D.Lgs 81/2008 Section 11 - protection from explosive atmospheres – Paragraph I (clauses 287-288) General provisions
D.Lgs 81/2008 Titolo 11 - protezione da atmosfere esplosive – Capo II (artt.289-296) Obblighi del datore di lavoro	D.Lgs 81/2008 Section 11 - protection from explosive atmospheres – Paragraph II (clauses 289-296) Obligations of the employer
D.Lgs 81/2008 - Allegato VIII - Indicazioni di carattere generale relative a protezioni particolari	D.Lgs 81/2008 Annex VIII - General indications relating to particular protections

3. CONCLUSION

There are no specific references to nanomaterial in italian safe at work regulations, therefore we are required to apply the general rules with a precautionary approach.

REFERENCES

Scuola Edile – CPT Centro per la formazione e la sicurezza edile di Padova (Italy)