



# Lead Paint – Reformulation is Entirely Possible

## Course Syllabus

### Learning objectives

This course guides equips learners with the technical knowledge and decision-making tools needed to transition to lead-free paints effectively. Content presented in this course takes into consideration a variety of resources, including the [UNEP Lead Paint Reformulation Technical Guidelines](#), the [UNEP Lead in Paint Model Law](#) and additional information and research.

The course is design for manufacturers, policymakers and small and medium enterprises (SMEs) wanting to learn how to transition to lead-free alternatives.

#### **At the end of this course, you will:**

- Understand why lead paint reformulation is essential, who is responsible for making the change, and how these efforts contribute to a safer and healthier environment.
- Know the terminology and understand lead paint components.
- Be able to explain the health and environmental risks associated to lead paint.
- Be able to apply the reformulation 5 steps process ensuring regulatory compliance and meeting customer and market expectations.
- Be able to select and use lead-free substitutes while maintaining product quality and performance.
- Recognize the role of regulation, technical support, and industry collaboration.
- Understand the business case for lead-free paints and the growing market demand and evaluate the economic impact and financial considerations of switching to safer formulations.

### Duration

This course is composed of 7 modules; in total it should take 2 to 3 hours to complete.

Each module includes video, interactive tools such as animated explainers, flashcards, and scenario-based explorations. Each module concludes with a knowledge quiz.

### Outline & content

#### **Module 1: Introduction to Lead Paint Reformulation**

You will learn about the dangers of lead in paint, including its health and environmental impacts. You will also explore international efforts to eliminate lead-based paints and the different actors. This modules also introduces the UNEP Lead Paint Reformulation Technical Guidelines.

#### **Module 2: Key Concepts and Terminology**

You will learn essential terms and definitions, how lead is used in paint, regulatory standards and human health and environmental risks.

#### **Module 3: Understanding the Reformulation Process**

You will discover the step-by-step process of reformulating lead paint, identify safe alternatives for pigments, driers, and binders and evaluate the economic and technical feasibility of lead-free paint reformulation.

**Module 4: Substituting Lead Compounds in Paints**

You will explore safe and effective alternatives to lead-based pigments and driers in paint production: identify lead-free pigments, understand their performance characteristics and recognize how different driers impact drying time and coating properties.

**Module 5: Testing, Compliance and Standards**

You will learn about performance testing for lead-free paints, ISO standards and quality control methods for ensuring paint safety. You will also learn about key regulatory frameworks for lead-free compliance.

**Module 6: Industry Implementation and Market Adoption**

In this module you will explore how businesses can successfully shift to lead-free formulations, adapt to market demands, and leverage economic advantages. By examining case studies, economic considerations, and real-world industry strategies, you will develop a comprehensive understanding of the transition process.

**Module 7: Resources, Suppliers and Next Steps**

In this module you will get practical guidance on sourcing safer alternatives, accessing reliable sources of supplier information, and understanding the next steps for different stakeholders, including policymakers, manufacturers, and small and medium enterprises (SMEs).