

## SAICM/UCT Lead in Paint (LiP) Community of Practice

### Discussion Forum

<b>Title</b>	<b>Is there lead in my paint? All about testing and labs.</b>
<b>Date</b>	<b>8<sup>th</sup> December 2021</b>
<b>Time</b>	<b>16:00 – 17:30 (GMT+2)</b>
<b>Facilitator</b>	<b>Andrea Rother, Univ. of Cape Town</b>
<b>Presenters</b>	<b>UNEP ( Mihaela Paun) IPEN ( Jeiel Guarino) Israel (Tamar Berman) Mercer University (Dr. Adam Kiefer)</b>
<b>WebEx Registration link</b>	<b>Register for this discussion by clicking the following link: <a href="https://unep.webex.com/unep/j.php%3FRGID=r68ac3a16163e8fcf0117ef3801f25d1a">https://unep.webex.com/unep/j.php%3FRGID=r68ac3a16163e8fcf0117ef3801f25d1a</a></b>

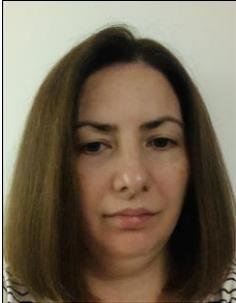
#### **NOTE:**

- ✓ Since this is a discussion, we encourage you to **prepare** or at least think about the questions prior to joining.
- ✓ **This guide** lays out the background to the questions, presents the questions and provides resources if you should wish to read further on the issue.



- **Details for joining this discussion are below.** To participate in this discussion you will need to have signed up in advance at: [www.saicmknowledge.org/community](http://www.saicmknowledge.org/community)
- For **technical assistance** on the day of the discussion go to the LiP CoP WhatsApp group: <https://chat.whatsapp.com/HOMtpqf5YG6EX53gJ6jsTR>
- **Connect** with laptops/PCs rather than phones since the discussion is about typing.
- Should you **NOT be able to join the discussion** but still wish to contribute please **click the link below** and fill out the Form with your **contributions**:  
<https://forms.office.com/r/tmfeMjbFhy>

## PRESENTER BIOSKETCHES



**Mihaela Claudia Paun** joined the Knowledge and Risk Unit at UNEP's Chemicals and Health Branch – Economy Division in September 2021 as a Programme Management Officer. She primarily focuses on the provision of project and programme management on the prevention, minimization, and environmentally sound management of persistent organic pollutants (POPs) and on the lead paint-related activities. Ms. Paun started her career more than 16 years ago in the Ministry of Environment of Romania in the fields of chemicals and waste and industrial pollution control.



**Jeiel Guarino** works as a global campaigner of IPEN's Global Lead Paint Elimination Campaign, which aims to end the manufacture, import, export, sale, and use of lead-containing paints and similar surface coatings worldwide. IPEN is a global network of NGOs in over 125 countries working together for a world in which toxic chemicals are no longer produced or used in ways that harm human health and the environment.



**Tamar Berman** is Chief Toxicologist of Environmental Health at the Ministry of Health in Israel. Tamar is involved in policy decisions on environmental chemicals including pesticides, chemicals in drinking water, and chemicals in consumer products. Tamar conducts research on childrens' exposures to environmental chemicals in paints, flooring materials, drinking water and environmental tobacco smoke.



**Adam M. Kiefer** is the Distinguished University Professor of Chemistry at Mercer University in Macon, Georgia, USA. Dr. Kiefer has worked for over a decade in artisanal and small-scale gold mining communities, monitoring mercury pollution associated with mining practices. Recently, his team utilized portable XRF to screen for high concentrations of lead paint in schools and playgrounds in Guyana. Further lab analysis quantified these results, and samples of new paint exceeded the Guyanese standard for lead in paint (600 ppm) by several orders of magnitude. He is currently developing new methods to accurately quantify lead concentrations in paint in the field.

## DISCUSSION INTRODUCTION – UNEP

Testing of lead paint is an important part of the lead paint discussion. The objectives of paint testing could be various:

- For **awareness raising purposes** to inform consumers on the lead content in paint and to inform advocacy to build momentum in the country toward the development, adoption, and implementation of legally binding measures, such as laws, regulations, standards and decrees on lead paint.
- For **compliance checking purposes**
  - to determine if the paint meets the regulatory requirement for permitted lead content:
  - to obtain documentation for compliance with the lead paint limit through third-party laboratory testing, to support a declaration of conformity.
- For **research purposes** to assess the health and environmental risks and consequences of exposure, understand the prevalence of lead paint in a country, determine and inform policy and decision-makers on the need for risk mitigation measures.

Lead paint testing is a key element to the UNEP Model Law and Guidance for Regulating Lead Paint, as it **documents industry's compliance with the total lead limit**, by requiring manufacturers or importers to submit sufficient samples of paints to a third-party laboratory accredited under international standards for testing compliance with the 90 ppm total lead-limit as recommended by the law. For imported paints, manufacturers and importers can rely on test results from qualified laboratories in the country of origin under certain circumstances (Appendix I, Section D). It also gives governments the authority to test for lead in paint.

It is still the case that many countries are lacking data on the lead content of paints, and neither government officials nor the public is aware that paints with high lead content are widely available for sale on the national market. This can be either due to facing different **challenges in conducting lead paint testing** (e.g. finding a competent lab, third-party accredited, providing or getting training on sampling paint, insufficient resources to conduct desired amount of sampling and testing, logistical difficulties in shipping samples of paint to labs, especially outside the country) or due to **lack of testing**.

It is important to note that lack of in-country paint test data and laboratory capacity is not an obstacle to developing and establishing a lead paint law. Data from nearby countries is often available. Also, UNEP has developed a [database of accredited laboratories](#) undertaking lead paint analysis globally to provide information for stakeholders who might not have direct access to a national laboratory. It is important to note that lack of in-country laboratory capacity is not an obstacle to developing and establishing a lead paint law.

Worldwide, there are available testing methods that vary from portable devices (XRF) to laboratory analysis. Even limited testing of lead in paint could make a big difference in developing lead paint policy around the world, supporting the characterization of lead paint problems and the importance of monitoring implementation of new laws. Therefore, through this session of the Lead in Paint (LiP) Community of Practice we are trying to learn **how lead paint testing made a difference in managing lead paint around the globe**.

Regarding the paint samples, the budget available and the type of results sought (monitoring compliance with a law vs. assessing the lead levels in paint found in the market) **methods to be used to test** for lead in paint will vary. The benefits and potential drawbacks of lead analyses utilizing a portable X-ray fluorescence (pXRF) analyser and

Inductively-coupled Plasma Optical Emission Spectroscopy (ICP-OES) will be briefly highlighted.

**Introductory poll:** *What type of organization do you represent?*

- National Government
- Local Government/authority
- Academic institution
- Health care institution
- Poison centre
- Professional association
- Civil society non-profit organization
- Intergovernmental organization (IGO)
- Industry
- Laboratory (commercial or government)
- Laboratory accreditation organization
- Other (please specify in chat)

#### QUESTION 1 (16h05 GMT+2) - IPEN

**Background:** In many countries, data on the lead content of paints is scarce, and neither government officials nor the public is aware that paints with high lead content are widely available for sale on the national market. There is also a lack of widespread awareness that lead paint can be a significant source of childhood lead exposure. Since there is very limited or no publicly available data on lead paint in many countries, IPEN and other institutions aim to analyze the lead content of paints that are commercially available on the market and generate national scientific information on lead content in paints.

Due to limited resources, IPEN prioritizes analyzing solvent-based paints which has high likelihood to contain lead ingredients than water-based paints. Also, decorative architectural paints are prioritized for testing over industrial paints since the former are commonly used in residential homes and school environments—places children spend most of their time. In some instances, a number of anticorrosive paints and spray paints are also analyzed for lead content since these are commonly used to spruce up school projects, home furniture, appliances, gadgets, toys, and playground equipment. In terms of colors, bright-colored paints (i.e., yellow, orange, red, and green) are prioritized for testing since these colors utilize lead pigments more than dull-colored paints.

However, the lack of available national data on lead content in paints should not deter governments and industries to take immediate actions to eliminate lead paint. Regulators may use data from nearby countries or countries with similar economic standing as reference materials in the process of developing their own regulations.

**Question 1:**

Why is paint testing being conducted in your country and, if it is not, what are the barriers?

Resources:

- [IPEN paint testing map](#)
- [IPEN testing module in the UNEP Toolkit](#)
- [IPEN 2020 Global paint testing report](#)
- [IPEN research on lead paint](#)

**Poll 1:** *Mark on the map if your country has done lead paint testing.*

**Poll 2:** *What is the biggest challenge you face in conducting testing? (Rank responses in order of priority)*

- Finding an accredited lab
- Lack of knowledge on sampling paint
- Lack of instrumentation for analysis
- Lack of qualified personnel
- Logistical difficulties in shipping samples
- Storage / disposal of paint cans after testing

**Poll 3:** *How have you or would you overcome challenges to testing? (indicate your country and give short answer)*

**QUESTION 2 (16h30 GMT+2) – Israel**

**Background:** Even limited testing of lead in paint made a big difference in developing lead paint policy in Israel. Before Israel conducted testing, there was a national requirement to label paints with high lead content but no quantitative restriction on lead content. Testing demonstrated that there were paints with high lead content on the market (for example spray paints) and lead in painted surfaces in playgrounds and public areas. Testing results helped gain broad support for quantitative restriction on lead in all paints, including among industry representatives and other stakeholders. This discussion will focus on how to use paint testing to characterize lead paint problems, and the importance of monitoring implementation of new laws or standards.

**Question 2:**

How has lead paint testing made a difference in your country? If you are not testing, how could it be helpful?

Resources:

- [Country case study – Israel](#)
- [UNEP Model Law and Guidance for Regulating Lead Paint](#) (EN, AR, CH, FR, RU, SP)

**Poll 1:** *In what kinds of paints have you found high levels of lead? (Select all that apply)*

- Architectural or household paint
- Paint on playground equipment
- Aerosol spray paint
- Automobile paint
- Paint on toys and school supplies
- Paint on furniture
- Road marking paint
- Have not done testing
- I don't know
- Other paint (specify in chat)

**Poll 2:** *What progress have you seen as a result of the testing? (Select all that apply)*

- Public awareness raised
- Government buy-in to regulate lead paint
- Industry buy-in to reformulate lead paint
- NGO buy-in to regulate lead paint
- Lead paint law drafted
- Lead paint law enforced
- Media attention to problem
- No progress
- Have not done testing
- I don't know

### QUESTION 3 (17h00 GMT+2) – Mercer University

**Background:**

While there are numerous ways to screen for lead paint in the field, the accurate quantification of lead in paint requires laboratory analysis and appropriate Quality Assurance / Quality Control (QA/QC) procedures. The analytical technique must 1) meet the sample requirements as imposed by the sample type (ie *in situ* screening of lead in paint vs. the analysis of lead in new paint); 2) match the established laws/regulations/technical standards in the country conducting the analysis; 3) produce data of acceptable quality to support the assessment; and 4) provide a level of accuracy and precision required for the purpose of the assessment. A brief comparison of lead analyses utilizing a portable X-ray fluorescence (pXRF) analyser and Inductively-coupled Plasma Optical Emission Spectroscopy (ICP-OES) of new and legacy paint samples collected in Bartica, Guyana will highlight the benefits and potential drawbacks of each of these methods.

**Question 3:**

What methods have you used to test for lead in paint? If you have not tested, what type of methods would you consider using?

Resources:

- [UNEP lead in paint laboratory database](#)
- [WHO testing guidelines](#) (AR, CH, RU)
- [Applicable sampling and testing methods in the Model Law \(see Appendix II\)](#)

**Poll 1: Who conducts the lead paint analysis for your country?** *(Select all that apply)*

- Government agency
- Commercial lab
- Academic institution
- Civil society non-profit organization
- Standards institution
- Paint industry
- Entity in another country
- I don't know

**Poll 2: If testing exists, what were the lead levels you have seen in new paint or paint on existing surfaces?** *(Select all that apply)*

- Below 90 ppm
- Between 90 and 600 ppm
- Above 600 ppm
- Above 10,000
- Other (please specify in chat)

## **Instructions for joining this discussion on the set date:**

This discussion will be held in **Cisco WebEx**.

- Please register for this discussion by clicking on the following link:  
<https://unep.webex.com/unep/j.php%3FRGID=r68ac3a16163e8fcf0117ef3801f25d1a>
  - a. Once you have clicked on the link, you will be asked to provide some details for registration purposes.
  - b. Fill out your details and click "Register".
- You will receive an email in the inbox of the email address you provided during registration with a calendar invite and a link to this discussion with the meeting ID and passcode.
- On the day of the discussion, click on the link in this email or on the button that says "Join now".
- You will be redirected to the discussion.

If you have not received any communications for this discussion, make sure you are signed up for the Lead in Paint Community of Practice or send an email to: [uctcops@outlook.com](mailto:uctcops@outlook.com)

## **Format of how the discussion will operate:**

- To participate in this discussion, sign up at: [www.saicmknowledge.org/community](http://www.saicmknowledge.org/community)
- Should you require assistance or have questions, contact: [uctcops@outlook.com](mailto:uctcops@outlook.com)
- ✓ This live discussion will be run in Cisco WebEx in the chat section on the set day. Members will introduce themselves upon arrival into the chat room.
- ✓ The discussion presenter will briefly present a verbal introduction.
- ✓ Three questions will be posted during the 1 ½ hour discussion for 25 minutes discussion. The presenter/s will address comments in the chat section of WebEx and all are encouraged to engage.
- ✓ All are welcome to join the discussion which will be held in English. Feel free to write in another language if you are struggling with English and members will assist where possible.

This activity is supported by the Global Environment Facility (GEF) project ID: 9771 on *Global Best Practices on Emerging Chemical Policy Issues of Concern under the Strategic Approach to International Chemicals Management (SAICM)*.