

Eliminating Lead Paint: The Role of the Paint Industry

Policy Brief, October 2020

The Strategic Approach to International Chemicals Management (SAICM) is a global policy framework which aims to protect human health and the environment from the unsound management of chemicals and waste. Since its inception in 2006, the voluntary and multisectoral and multistakeholder nature of SAICM has been viewed as one of its core strengths. SAICM provided a space for government and non-government actors alike to discuss and deliberate on the management of chemicals and waste.

A key obstacle that has been limiting SAICM's success has been the underrepresentation of some relevant stakeholders and sectors in SAICM's process and structure. Industry and private sector representation at SAICM has been limited to the chemical producing industry. Many organizations with an interest in the SAICM agenda such as downstream uses of chemicals, retailers, among others have been absent. In this context, the policy brief highlights the importance of multistakeholder collaboration, including the private sector and the key role it plays in achieving the sound management of chemical and waste at local, national, regional and global levels.



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BACKGROUND

Lead is a dangerous neurotoxin, yet it is still added to paint that is sold in most countries in the developing world. Lead paint is sold even though there are safe paints without added lead available on the market since there is no way for consumers to distinguish which paint is safe and which is lead paint. As for the burden of disease due to lead exposure, it is estimated that in 2017, lead exposure accounted for 1.06 million deaths and 24.4 million years of healthy life lost (disability-adjusted life years (DALYs)) worldwide due to long-term effects on health. The highest burden was in low- and middle-income countries. It was also estimated that in 2016, lead exposure accounted for 63.2% of the global burden of idiopathic developmental intellectual disability, 10.3% of the global burden of hypertensive heart disease, 5.6% of the global burden of the ischaemic heart disease and 6.2% of the global burden of stroke.¹ Lead is also a well-documented ecotoxicant, posing threats to both aquatic and terrestrial ecosystems.²

Due to its versatile properties, lead has been used for millennia by humans for various types of manufacturing. In paint, lead compounds can be added as pigments, driers or as anti-corrosives to add durability, opacity and color. Intact lead paint is safe; however, as the paint ages it starts to decay, and can fragment into flakes and dust that contaminate the environment and adversely affect human health via ingestion or inhalation.

However, it is no longer necessary to use lead as safer alternatives to lead compounds are available for use in paints, and a number of paint companies have stopped using lead additives, either on a voluntary basis or in

compliance with existing laws. The best way to protect the population from lead in paint exposure is to act now by introducing and enforcing laws³ that either ban or restrict the use of lead in paint. This is much more cost-effective than after-the-fact efforts to remediate homes and deal with the health consequences of lead exposure. Eliminating lead paint now brings future economic benefits in terms of preventing losses due to reduced productivity, avoiding the costs of the health impacts of lead, and dealing with legacy lead paint to make homes and other premises safe.

In 2009, the second International Conference on Chemicals Management (ICCM2) identified lead paint as an emerging policy issue under the Strategic Approach to International Chemicals Management (SAICM) framework and of the creation of the Global Alliance to Eliminate Lead Paint (The Alliance). The Alliance has established multi-stakeholder engagement platform between governments, policy makers, industries and civil society to develop the regulatory and voluntary actions needed to phase out lead in paint.

As of 30 September 2020, 77 countries (40% of all countries) have legally binding controls to ban the manufacture, import and sale of lead paint. Such binding controls are necessary to help achieve the sound management of chemicals and secure a healthier future and planet. Despite efforts to eliminate lead paint globally, too many countries still lack regulations for lead paint.⁴

¹ Institute for Health Metrics and Evaluation (IHME). GBD Compare. Seattle, WA: IHME, University of Washington; 2017.

² United Nations Environment Programme (UNEP), 2010.

³ A lead paint law is meant in the broadest sense to include any mandatory legal requirement with consequence for non-compliance. It can be a statute, a regulation, or a standard, as long as it includes an enforcement mechanism.

⁴ UNEP Global Status Legal Limits Lead Paint (UNEP 2019) unenvironment.org/resources/report/2019-update-global-status-legal-limits-lead-paint

PHASING OUT LEAD PAINT THROUGH A MULTISTAKEHOLDER APPROACH, INCLUDING REGULATORY AND PRIVATE SECTOR INTERVENTIONS

A snapshot of the paint and coatings industry

The paint and coatings industry consist of manufacturers of paints, varnishes, polishes, shellacs and stains. It comprises three sectors: architectural, industrial and special purpose sector, however, there is no agreed international definition as to where the borders between these sectors are. The architectural coatings are related to the construction (i.e., house paints) and manufacturing sector, whereas industrial coatings are connected closely to the automotive, major appliances and industrial equipment sectors. The special purpose includes a wide collection of divergent coatings, while the other classification divides paints in do-it-yourself (DIY) and to be applied by professionals.

In 2019, the global paint market was estimated to be worth **USD 193.6 billion**. The outlook for 2020 and 2021 have changed significantly due to Covid-19. The estimated decline in the first half of 2020 is **USD 33 billion** and the partially recovery in the second half of 2020 of **+USD 11.2 billion**. **The year 2020** would thus result in a market size of **USD 171.8 billion**. The market is expected to grow to **USD 181.9 billion** in **2021**. These values must be regarded as “unsharp” estimates considering the uncertainty brought by a global pandemic-induced economic crisis.¹

In terms of global paint and coatings market by region by value, the major regional markets are Asia-Pacific, North America and Europe with the fastest growing regional market in the Asia-Pacific region.² The global paint industry has increasingly consolidated over the past two decades, with the top ten suppliers currently accounting for 42% of the total market, while the remaining 58% market share is mostly composed of SMEs.³ It is important to take into consideration that these numbers likely vary from country to country. Most (if not all) of the ten biggest companies produce paint without any lead additives or are in the final stages of their reformulation work.

Providing advice on phasing out lead paint: the SAICM-GEF Project on Emerging Chemical Policy Issues

To further advance the elimination of lead paint through the development of laws and to demonstrate the feasibility of lead paint reformulation the Global Environment Facility (GEF)-funded project, “Global best practices on emerging chemical policy issues of concern under SAICM” focuses on phasing out lead paint by working with governments to support the development of lead paint laws as well as working with SMEs to promote the reformulation of lead paint from their production processes. By creating an enabling environment for change through technical capacity building, consumer awareness and regulation enforcement, the project seeks to achieve this by working with governments to support the development of lead paint regulation in at least 40 countries and phase out the use of lead additives in approximately 50 SME paint manufacturers.

The first output of the project seeks to provide policy support to governments in establishing and implementing national legal limits on lead paint. The objective is to achieve the phase-out of the manufacture, import, and sale of paint containing lead. The project executing partners are currently working to provide countries with technical assistance on legal drafting, awareness-raising and stakeholders engagement as well as developing regional standards on lead paint.

A second output of the project is working to help SMEs transition to lead-additive free paints. The National Cleaner Production Centers of Jordan, Ecuador, Peru, Colombia and China are working with SMEs on pilot demonstrations for paint reformulation with the technical assistance of the NCPC of Serbia. The International Pollutants Elimination Network (IPEN) is working with its partners in Indonesia and Nigeria towards the same goal. The project is in the process of developing a set of Technical Guidelines on Lead Paint Reformulation for SMEs and case studies of best practices. Project partners are working with SMEs to demonstrate the replacement of lead containing raw materials with non-lead alternatives. Additionally, a number of global raw material suppliers provide lead-free ingredients and technical assistance for SMEs to achieve reformulation to lead-additive-free paint.

PURPOSE OF THIS POLICY BRIEF

The knowledge management component of the SAICM GEF project on emerging chemical policy issues aims to promote collaboration and engagement with diverse stakeholders and promote sharing of scientific and policy information on emerging chemical policy issues. As part of the activities of this component, the SAICM Secretariat conducted informal interviews with multiple project partners from diverse stakeholder groups actively working with SMEs to phase out lead paint. This policy brief aims to explore the barriers Small Medium Enterprises (SMEs) face to transition to paint with no added lead, document lessons learned from project partners and their work with SMEs, while highlighting the importance of multistakeholder collaboration and demonstrating the value proposition that the project is creating in this space.

¹ FARBE UND LACK - Heft 10/2020 [360.farbeundlack.de/zeitschriften/farbe_und_lack-10.2020](https://www.farbeundlack.de/zeitschriften/farbe_und_lack-10.2020)

² FARBE UND LACK - Heft 10/2020 [360.farbeundlack.de/zeitschriften/farbe_und_lack-10.2020](https://www.farbeundlack.de/zeitschriften/farbe_und_lack-10.2020)

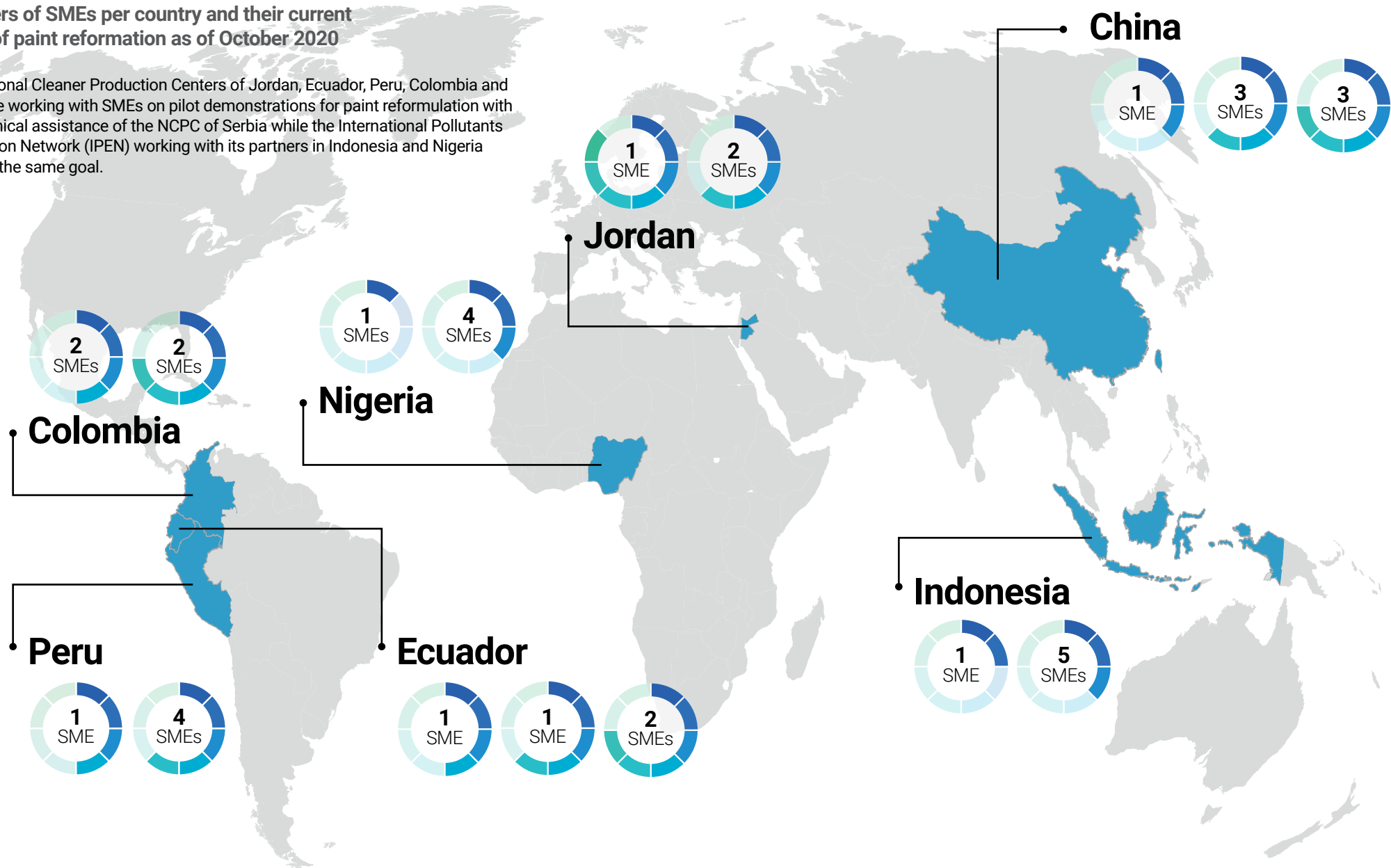
³ Calculation based on coatings and paints global market share by company 2019

8 STAGES OF PAINT REFORMULATION

1	Project partner selected companies	3	Products to be reformulated are selected	5	Pigments for substitution selected	7	Reformulation process in the lab finished
2	Cooperation agreements are signed	4	Suitable alternatives are defined and assessed	6	Laboratory performance testing	8	Testing of the production

Numbers of SMEs per country and their current stage of paint reformation as of October 2020

The National Cleaner Production Centers of Jordan, Ecuador, Peru, Colombia and China are working with SMEs on pilot demonstrations for paint reformulation with the technical assistance of the NCPC of Serbia while the International Pollutants Elimination Network (IPEN) working with its partners in Indonesia and Nigeria towards the same goal.



A MULTI-STAKEHOLDER EFFORT WITH A PRIVATE SECTOR COMPONENT

The SAICM-GEF project is a multi-stakeholder effort that has had a successful start and has conducted successful coordination among all key sectors, including the private sector. One goal of the project is to create private sector partnerships between SMEs in seven different countries and alternative paint supplier companies in order to successfully promote paint industry actions needed to phase out lead in paint. These collaborations demonstrate that by working together, companies (in the paint supply chain) can ensure the paint industry is collectively helping to protect people and the planet from harmful effects of lead. The sections below discuss barriers and lessons learned related to reformulation of lead paint.

Barriers faced by SMEs to transition to lead additive-free paint

1. SMEs often face size-related resource constraints, lack of expertise and limited knowledge in their efforts to adopt lead-additive-free alternatives and pursue reformulation opportunities.
2. For many SMEs, accessing substitute ingredients at a competitive price may not be feasible, leading them to source lower cost raw materials that may be contaminated with lead. Such producers are often unaware of the effects of lead in paint, and once informed, they may lack the resources and expertise to reformulate lead paint.
3. Reformulating lead paint to remain a cost-effective, while retaining its desired properties requires some level of research and development resources. Larger companies often have development divisions with the relevant expertise; however, SMEs often have less resources for development and depend on their vendors for expertise. If vendors are unable to provide technical advice and cost-effective, non-lead alternatives, SMEs may not be able to switch to such alternatives.
4. A financial barrier is that many SMEs, in the absence of a lead paint law, are often reluctant to switch to alternate additives without lead. They may be concerned about not being cost competitive or being able to provide paint with the desired properties if they reformulate.
5. Finding reformulations for some types of more specialized paint applications can be time consuming, as it requires finding appropriate non-lead additives and testing paint properties of the reformulated paint to ensure proper performance.
6. Some paint products are easier to reformulate (faster, fewer components needed, availability of alternatives) to reformulate than others. For example, lead driers are easy to replace since they are drop-in replacements, while specialty paints may need more time and research.

Lessons learned

Without laws to phase-out lead in paint, the shift to sustainable solutions will likely continue to occur at a slow pace

Laws play a role in setting the course of the market. The decision to establish a regulatory framework signals that the national market for lead-containing or lead contaminated paint ingredients is about to change, incentivizing national paint ingredient vendors to make the needed adjustments. Because SMEs have a reasonably large market share particularly in developing countries, a law banning lead paint it is important to alert SMEs of upcoming requirements and how they can be met. This helps increase public and industry support for and acceptance of laws.

The adoption of a legally-binding and enforced national regulatory framework to protect human health and the environment from lead in paint creates a level playing field for paint companies of all sizes.

The adoption of a legally-binding and enforced national regulatory framework effectively ensures there is a fair and level playing field for paint manufacturers to adhere to lead paint standards and regulations, while holding non-compliant entities accountable. Effective enforcement of lead paint regulations aid in protecting human health and the environment, discouraging potential violators, and leveling the playing field for all companies.

Business to business collaboration can lead to sustainable business growth

Reformulating paint cost-effectively while retaining the paint's color and properties can take time and in many cases involves trial and error. Large paint companies generally have research and development divisions with expertise in paint chemistry. It is important for SMEs and suppliers of alternatives to lead raw materials to work together to reformulate lead paint. Typically, SMEs work with local vendors, while some may have direct collaboration with big alternative supplier companies. Alternative suppliers provide lead-free ingredients and possess knowledge of how to reformulate paints. It is in the business interest of alternative suppliers to provide this knowledge to paint manufacturers to increase sales of their products and expand their market share and SMEs benefit from access to the technical knowledge.

Consumer awareness is important: increased consumer awareness of the risks of lead-based products can motivate the private sector to act to phase out lead to meet customer demand for safer paint.

Efforts by civil society, healthcare sector and the media to raise and gauge awareness by consumers about the hazards of lead in products is key to stimulate action by governments, enterprises and others. Considering that sustainability is becoming a mainstream issue in a growing number of countries, consumer demand for products without added lead places paint companies under pressure to lead the way in bringing safe products to the market. Continued action on this front needs to remain a priority in order to work with governments that aim to pass lead paint laws that create a level playing field to incentivize SMEs and other paint manufacturers to focus on product innovation and deliver paint products without lead additives into the market.

MOVING FORWARD: CALL TO ACTION

To continue the success of phasing out lead paint globally, project partners highlighted further recommendation to incentivize closer collaboration among stakeholders and scale up and to secure the sustainability of the work being done in this space.

Scaling up initiatives

The awareness-raising activities on the risks of lead paint to the environment and health and efforts to develop lead paint laws, along with the paint reformulation guidelines and the production of paint with non-lead additives, have so far successfully influenced over 30 SMEs in seven countries to join the paint reformulation demonstration projects voluntarily. These SMEs are participating at their own expense as a co-finance contribution to the SAICM-GEF project activities. Their efforts have been key to scale-up the results and to trigger the interest of other paint manufacturers for phasing out lead paint in all world regions. In order to effectively scale-up paint reformulation, adoption of lead paint laws in all countries will be the main driver for SMEs. Passing laws is the only effective way to encourage change in industry practices.

Scale-up of paint reformulation and the use of the new paint reformulation guidelines will be promoted by sharing the results and guidance of demonstration projects with industry globally. These guidelines and other materials will be disseminated through the Global Alliance to Eliminate Lead Paint and the World Coatings Council and other paint industry associations, thus contributing to the replication of the demonstration projects worldwide.

These efforts to phase-out lead in paint are further supported by the development of relevant knowledge products produced by the Alliance and the SAICM GEF project, such as a WHO technical brief on the global elimination of lead paint (with a rationale on the 90ppm total lead limit), WHO guidelines on analytical methods for measuring lead in paint and lead in blood, and others.

Continued active engagement in the public policy dialogue

As a next step to further advance regulatory action, there is a need to continue active engagement with relevant governments to encourage lead paint laws for the phase out of lead in paint and demonstrate both the sustainability benefits and the existence of available alternatives on the market. Adoption of lead paint laws in all countries will be the main driver for SME reformulation of lead paint. By passing laws, governments send a signal to the paint industry that it is time to change their practices and reformulate paint to not have intentionally added lead.

The ongoing discussions related to the Strategic Approach and the sound management of chemicals and waste beyond 2020 provide opportunities to focus on existing issues of concern and new programmatic areas. Noting that the 2020 global goal of eliminating lead paint will not be achieved, these discussions provide an opportunity for the international community to continue to build momentum, address gaps and reinforce efforts toward the elimination of lead in paint at a global level through lead paint laws. This would allow for continued coordinated actions to implement solutions and will allow for continued support to the work done by the Global Alliance to Eliminate Lead in Paint and its partners.

Identifying industry champions: leading by example

When it comes to supporting SMEs, in advance of or after the passage of a lead paint law, a national paint action award could help to start a domestic race for lead replacement with growing public recognition. While focusing on environment and health would be central, such a project should also include the aspect of making a national market future-proof, catching up and competing with the global players, and facilitating the emergence of “national sustainability heroes”!

We thank the project partners who were interviewed or contributed to the development of this policy brief:

- United Nations Environment Programme (UNEP)
- Global Alliance to Eliminate Lead Paint
- IPEN International Pollutants Elimination Network (IPEN)
- National Cleaner Production Center Peru
- National Cleaner Production Center Jordan
- National Cleaner Production Center Serbia
- World Coatings Council
- Clariant
- BASF Colors & Effects

FURTHER READING

Tools to assist countries in adopting lead paint laws provided by the Lead Paint Alliance/ SAICM- GEF project: to raise public and policy maker awareness of the dangers of lead paint and to promote action to eliminate lead:

- For a suggested approach to a national lead paint restriction – a [“Model Law and Guidance for Regulating Lead Paint”](#) guidance for countries drafting new laws or modifying existing laws to restrict lead in paint.
- For detailed information to support the need for lead paint laws – [“Toolkit for Establishing Laws to Eliminate Lead Paint”](#)
- For a global and regional overview of lead paint laws – the [“September 2019 Update on the Global Status of Legal Limits on Lead in Paint”](#)
- For the justification of the recommended 90 parts per million total lead in paint, a [policy brief and technical brief](#) on “Global Elimination of Lead Paint: why and how countries should take action”
- A brochure is available on the [steps in adopting lead paint laws](#)
- For guidance on awareness raising: WHO [“Guidance on organizing an advocacy or awareness-raising campaign on lead paint”](#)

Other useful tools:

- On how to test lead in paint: [Brief guide to analytical methods for measuring lead in paint, 2nd ed](#)
- Reformulation guidance found [here](#)



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