October 2021

Lead Content of Paints in Sri Lanka

Joint Study conducted by;
Centre for Environmental Justice (CEJ), Sri Lanka
Occupational Knowledge (OK) International, USA

Chalani Rubesinghe (B.Sc, M.Sc) | Harshani Abayawardhana (B.Sc) | Perry Gottesfeld (MPH)

Lead Content of Paints in Sri Lanka

October 2021

Joint Study conducted by
Centre for Environmental Justice (CEJ),
Sri Lanka
and
Occupational Knowledge (OK) International,
USA

Prepared by:

Chalani Rubesinghe (B.Sc, M.Sc),

Harshani Abayawardhana (B.Sc),

Perry Gottesfeld (MPH)

Layout : Melisha Fernando

Photographs: Harshani Abayawardhana

Executive Summary

The Centre for Environmental Justice (CEJ) first started working on Lead (Pb) paint elimination back in 2009. Ever since, CEJ engaged in advocacy, research, awareness and campaigning in order to make the Sri Lankan paint market lead safe. The purpose of this study was to monitor whether decorative paints with high lead levels are still being sold in Sri Lanka eight years after government restrictions were imposed in 2013.

Key findings of the new study show that most paints have been reformulated to eliminate lead additives but higher lead levels were found in some lacquers and anti-corrosion paints used for metal surfaces. Out of the total of 37 paint samples tested, 14% contained lead at concentrations in excess of 90 ppm (the standard in Bangladesh, Nepal, U.S., Canada and many other countries). Out of the total, 97% of the samples contained lead concentrations below 600 ppm, the legal standard for lead concentration in enamel and floor paints permitted to be sold within Sri Lanka.

The study included 25 paint manufacturers altogether and 20 of them were belonging to Small and Medium paint Manufacturers (SMEs). The results show that 16 out of 20 brands belonging to by SMEs were detected for lead concentration below 90 ppm.

Another independent study conducted by researchers at the University of Colombo published in 2021, using samples collected between November 2014 to April 2015, showed that 22% of the 36 enamel paints tested exceeded 90 ppm lead and 5% of the samples exceeded 600 ppm lead. The study also demonstrated that lead chromate pigments were still used in Sri Lanka after the lead paint restrictions came into place.

These finding suggests that Sri Lanka should update the lead paint standard to a limit of 90 ppm in coordination with other countries as per guidance from the United Nations Global Alliance to Eliminate Lead Paint (GAELP). The current standard restricts the use of lead in specific applications but should be revised to cover all types of paints, coatings, ceramic glazes, and inks. In addition, given the continued use of lead chromate in paints, it should be a priority to ban the import, export, manufacture and use of these carcinogenic pigments as the European Union has already done.

These findings highlight the significant achievement of the efforts of the Centre for Environmental Justice to eliminate lead paint through this ongoing campaign.

Acknowledgment

CEJ gratefully acknowledges Perry Gottesfeld of Occupational Knowledge (OK) International, USA for funding and guidance provided in carrying the paint testing and SGS Galson Laboratories (USA) for donating sample analytical services.

We also acknowledge the partners and funders of our campaign since 2009 that contributed in numerous ways to achieve this success today. The very first being Toxics link, India and IPEN followed by the European Union, the Swedish Environment Protection Agency, Swedish public development co-operation aid through the Swedish Society for Nature Conservation (SSNC), that funded various studies under this effort of eliminating lead paint from Sri Lanka.

Also acknowledge the CEJ team; Mr. Hemantha Withanage, Mr. Dilena Pathragoda, Mr. Chandana Jayakody, Mr. Gamini Piyarathne, Mr. Indika Rajapaksha, Mr. Ranjan Karunaratne, Mrs. Shanika Lokuruge, Mr. Dineth Nilakshana, Miss. Yohani Sanjeewani, Miss. Thushini Jayasekara, Miss. Nimmi Sanjeewani, Miss. Madushani Sendanayaka and Miss. Samadhi Hansani, Mr. Janaka Withanage, Mrs. Kanthilatha, Mr. Savindu Fernando who helped in numerous ways to collect paint samples, preparation for testing and conducting the advocacy campaign. A special thank goes to Ms. Melisha Fernando for her exceptional support in report designing and layout.

Contents

Introduction

The Centre for Environmental Justice (CEJ) is the leading organization in bringing Sri Lanka's mandatory standards for lead in decorative paints which took effect in January 1, 2013. The Consumer Affairs Authority (CAA) gazetted this regulation in Gazette Extra Ordinary No 1725/30 on 30th of September 2011 (Annex 1). This mandatory standard was a result of a CEJ campaign initiated based on the study of lead content in paints in Sri Lanka conducted in 2009. In this campaign, while raising awareness among paint companies, Sri Lanka standards Institution, CSOs and other stakeholders, CEJ went to the Supreme Court (Case No. 64/2011) requesting a mandatory standard for the sake of the health of the children in Sri Lanka. As a result, the Consumer Affairs Authority made the gazette notification, establishing new mandatory standards for lead levels in paint to take effect in January 1, 2013.

The Consumer Affairs Authority brought a subsequent gazette in 2014 (Annex 2). Requesting the lead level to be printed on the paint label, which was amended in 2016 ordering to print a Declaration on the label that the total Lead content does not exceed the permissible maximum level of Lead content specified in Direction No. 36 issued by the Consumer Affairs Authority and published in Gazette Notification No. 1725/ 30, dated 30th September 2011.

Out of the samples purchased, only 24% of the products tested had labels reflecting lead content (e.g. "Pb <600mg/kg"/ "Max Pb < 600mg/ltr" / "Pb < 90mg/kg") while 70% of the samples indicated "Pb safe", "Pb free" or "No added Pb". Unfortunately, the samples detected for highest lead level (700 ppm) had the label "Pb safe" and the lacquer with 110 ppm had the label "Pb free" (Figure 3). These findings should motivate the Sri Lankan Consumer Affairs Authority to implement regular monitoring to ensure that product labeling meets regulatory requirements. Surprisingly, we also found a lacquer paint with the label indication "Pb<20 mg/kg" which aligned with our test results.

CEJ conducted lead in paint testing in 2010, 2013, 2014 and 2015. The first lead in paint study was conducted in 2010, in collaboration with IPEN and the Indian NGO, Toxics Link, under a global scientific study on Lead in New Decorative Paints. The results showed that, 69% of Sri Lankan decorative paints were found to exceed the current standard of 600 ppm. The highest content of lead was 137,325 ppm.

In 2013, CEJ conducted a second survey as a part of the Asian Lead Paint Elimination Project, a project funded by the European Union and conducted in collaboration with IPEN[1]. Out of the 94 paints sampled from 57 brands covering all parts of the country, 50% of the solvent-based paints exceeded the regulated limit of 600 ppm. The highest lead level detected was 131 000 ppm. Interestingly, 64 out of the 94 samples were purchased after the lead paint legislation came into force.

Then in 2014, CEJ conducted a quick study to check the compliance of the paint to the regulation using a small sample of 15 paints representing 15 different brands[2]. Out of this, 53% were detected to be exceeding the regulated level while the highest level recorded was 72,000 ppm.

During the fourth screening study conducted in 2015, 46% of 57 paint samples tested exceeded the regulated lead level[3]. The highest recorded level in that year was 44,000 ppm.

In 2020, CEJ in association with OK international purchased 37 paints to see the compliance to lead standards after 8 years of implementation of the law.

CEJ efforts in lead paint elimination was not limited to testing. It included; advocating with decision makers, litigation, public awareness, spreading awareness among school children, awareness raising among Small and Medium Paint manufacturers, connecting paint companies to alternative raw material suppliers to resolve concerns in converting to lead safe paint, and demonstration projects to paint pre-schools with Lead Safe Paint. We were also instrumental in encouraging paint companies to obtain the third-party Lead Safe Paint certification which recognizes companies that reformulate all of their paint products to contain less than 90 ppm lead.

[1] http://ejustice.lk/wp-content/uploads/2017/10/Lead-paint-study-2013.pdf

[2] https://docplayer.net/50025930-Lead-levels-in-enamel-paint-in-sri-lanka-two-years-after-the-regulation.html

[3] https://ipen.org/sites/default/files/documents/National-Report-Lead-in-New-Enamel-Household-Paints-in-Sri-Lanka-2015.pdf

WHAT IS THE CONCERN OF LEAD IN PAINT?

Paint is one of the major sources of lead exposure in children and a significant source of exposure to workers manufacturing paint and disturbing these surfaces during painting, construction and auto repair. For children, most exposures occur through contamination of dust and soil from paint. Of particular concern are toys painted with lead paint that children can put in their mouth or chew on. In some cases, children eat paint chips and become severely poisoned. More commonly, damaged paint can contaminate dust and soil. Renovation and repainting also disturbs lead paint resulting in dust and soil contamination. Young children that play close to the ground can easily get exposed to this lead through hand-to-mouth activity.

Children's blood lead levels are generally correlated with dust and soil lead levels. In 2014 CEJ sampled dust in 2 houses, 2 schools, and 16 pre- schools[4]. The study found that lead was contaminated in one or more samples from 11 of the 20 locations, with lead levels exceeding 10 µg/ft^2. Studies have found that dust lead loadings as low as 10 µg/ft^2 can contribute to blood lead levels harmful to the developing brain[5,6].

HEALTH EFFECTS OF LEAD

Lead is one of the most widely studied hazardous chemicals. According to the World Health Organization (WHO), there's no safe level of exposure to lead. Even a minute level of exposure could be associated with a health risk[7].

While health effects could be on both children and adults, children under 5 years of age, and pregnant women are at great risk. Children are at greater risk as they absorb 4-5 times lead than an adult exposed to the same level, they can also ingest more dust than an adult, neurological effects on children can occur at lower levels than in adults[8].

Lead can interfere with growth, development and differentiation process of a child's brain. Brain damage caused by lead exposure is irreversible and untreatable. Studies have shown that low levels of lead exposure in childhood are associated with region-specific reduction in gray matter volume in brain in their adulthood[9]. Lead exposures among children may result in reduced intelligence quotient (IQ) linked to reduced educational attainment and behavioral changes that include reduced attention span and increased antisocial behavior. Even when the lead exposure does not show obvious symptoms it can cause anemia, hypertension, renal impairment, and reproductive effects in adults[10]. Lead exposure is also associated with cardiovascular disease resulting in hundreds of thousands of deaths each year.

THE ECONOMIC IMPACT

Scientists calculate the effect of lead poisoning on the economy of a country. It is said that intellectual damage caused by lead exposure affect the economic productivity or the lifetime earnings of an individual. Accordingly, for Asia the economic loss is equal to $699.9 billion of international dollars[11] (1.88% of GDP in that region). The true cost of lead exposures would be much greater if we accounted for its contribution to cardiovascular disease.

[4] https://ipen.org/sites/default/files/documents/Lead%20in%20household%20dust%20in%20sri%20lanka-June%202014%20.pdf

[5] https://pubmed.ncbi.nlm.nih.gov/11815762/

[6] https://pubmed.ncbi.nlm.nih.gov/19337524/

[7] https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health

[8] https://www.who.int/ipcs/features/lead.pdf

[9] https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0050112

[10] https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health

[11] An International dollar is a currency unit used by economists and international organizations to compare the values of different currencies. It adjusts the value of the U.S. dollar to reflect currency exchange rates, purchasing power parity (PPP), and average commodity prices within each country. According to the World Bank, "An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States." The data from the table (at: http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD) was accessed by the report's authors in February 2012.

Materials and Method

CEJ purchased 30 samples of oil-based paints between September 2020 to January 2021 and another 7 samples from September to October 2021. Samples were purchased from stores in Colombo, Gampaha, Kegalle districts in Sri Lanka. One of the samples were purchased from an online store, that was a common channel for paint circulation during the pandemic.

A sample log was prepared with data such as paint manufacturer, product name, paint type (Enamel/ floor paint/ Anti-corrosive/ Varnish or lacquer), color, date of manufacture, batch number and indication labels on lead safety. Paint cans were then cleaned with a wet cloth and tissues to get-rid of dust and dirt. Samples were then prepared on 1 square foot, clean glass plates. Each can was thoroughly mixed prior to opening. A thin layer of the sample was applied on the glass plate using a brush with an unpainted handle and uncolored bristles. Each paint brush, pair of gloves and glass plate was only used once in order to prevent cross contamination. All samples were then allowed to dry at room temperature for five to six days or more depending on the paint type. After drying, the paint was carefully scraped off using a clean blade and resulted paint chips were wrapped in blank white paper. Each sample was then sealed in a pre-numbered zip-lock bag and sent for testing (Figure 1).

The first 30 samples were tested in the SGS Galson Laboratory in New York that holds a variety of accreditation and participates in the proficiency analytical testing program under the National Lead Laboratory Accreditation Program (NLLAP). The samples were analyzed with Inductively Coupled Plasma (ICP) using Analytical Methods: mod. SW846 3050B/ 6010C/ OSHA 125G.

The remaining 7 samples were tested at SGS Lanka (Pvt) Ltd following the test Method: CPSC-CH-E1003-09.1 Standard Operating Procedure for Determining Lead (Pb) in Paint and Other Similar Surface Coatings[12].

Figure 1: Sample preparation and testing procedure. Samples were prepared on glass plates and the scraped peels were sent for analysis

[12] https://www.cpsc.gov/s3fs-public/pdfs/blk_pdf_CPSC-CH-E1003-09_1.pdf

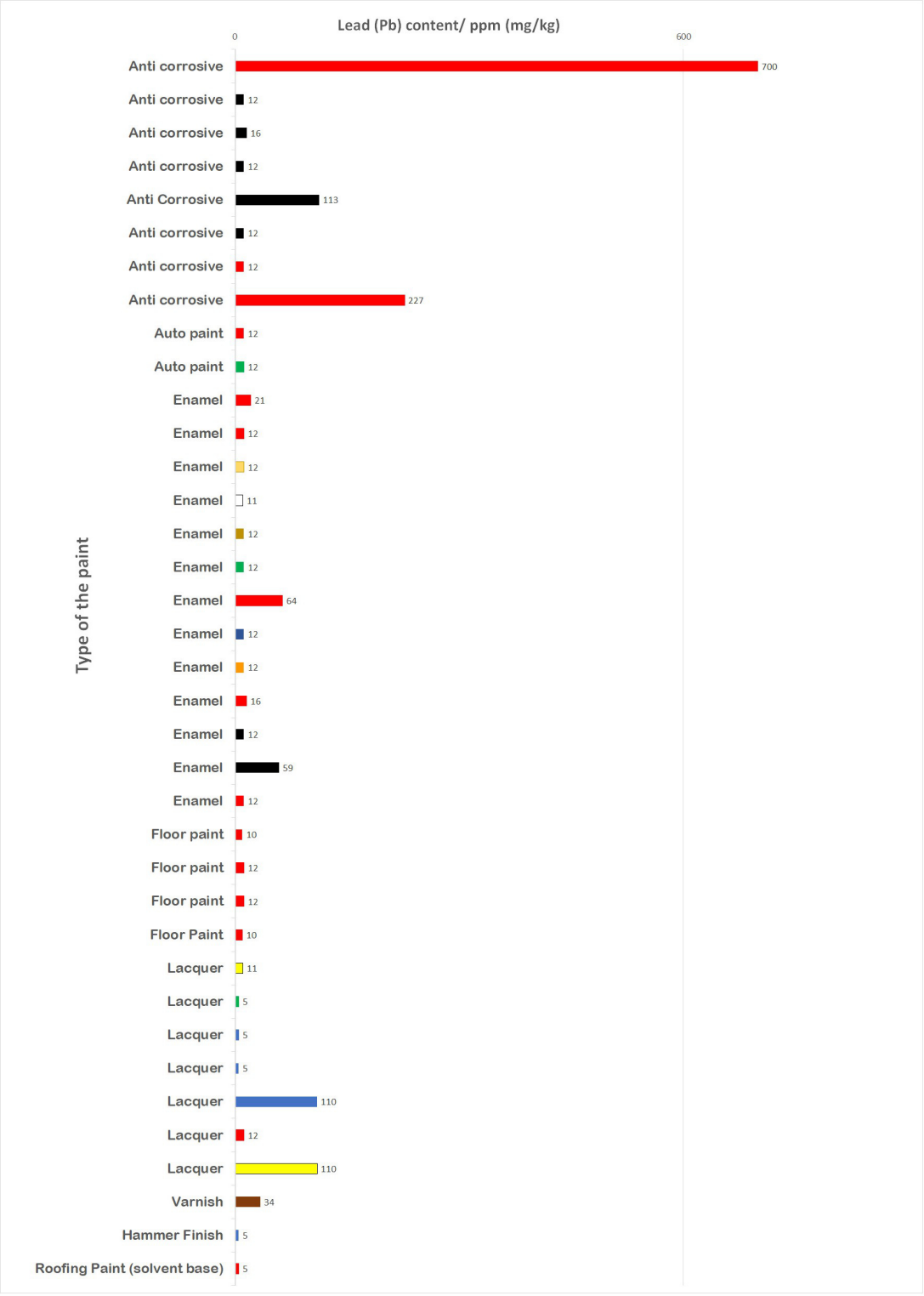

Figure 2: Lead concentrations in paints tested. The 600 ppm is the legal standard for enamel paints sold in Sri Lanka set under the Gazette Extra Ordinary No 1725/30 on 30 September 2011 that took effect in January 1, 2013. However, the same standard specifies 90 ppm for Paints for Toys and Accessories for Children).

Paint Test Results & Discussion

CEJ sampled 37 oil-based paints representing 25 different manufacturers and 31 brands. Samples included 8 anti-corrosive paints for metal surfaces, 2 Auto paints, 13 enamel paints, 4 floor paints, 7 lacquers and 1 from each varnish, Hammer Finish and Roofing Paint (solvent base) (Annex 3). Five of the samples (14%) exceeded 90 ppm lead with the highest concentration found in an anti-corrosive paint with 700 ppm lead (Figure 2). Except for 4 other samples, the rest was found to have lead levels even below 90 ppm, the standard adopted by many countries including Sri Lanka for paints to be used on toys and accessories for Children. The average recorded was only 47 ppm.

Unfortunately, we found that 2 lacquers which are often used on children's toys and accessories (Table 1). Even anti-corrosives are often used on metal grills in preschools and childcare facilities.

Table 1: Percentage paint samples in each paint type having lead in different levels.

Paint type	Lead level below 90 ppm (% of samples)	Lead level below 600 ppm (% of samples)	Lead level between 600 ppm to 10000 ppm (% of samples)
Anti-corrosive	63	88	12
Auto paint	100	100	
Enamel	100	100	
Floor paint	100	100	
Lacquer	71	100	
Varnish	100	100	
Hammer Finish	100	100	
Roofing Paint (solvent base)	100	100	

Based on color, previously it was seen that red, yellow, green and orange can have lead in high levels but, in this study the color did not seem to be significant. For example, red in anti-corrosive had lead as low as below 12 ppm and as high as 700 ppm (Figure 2).

A study conducted by Lakmini and Mahanama (2021) on Pb (lead) and Cr (Chromium) in enamel paints collected during November 2014 to April 2015 reveals that lead chromate ($PbCrO_4$) is used as a pigment in some yellow and green paints[13]. Their results indicating that 22% of the 36 enamel paints tested exceeded 90 ppm lead and 5% of the samples exceeded 600 ppm lead were similar to our findings. The study further recommends prioritizing policies to mandate the substitution of Pb and Cr containing compounds, such as $PbCrO_4$ with safer pigments. Even during the current study yellow lacquer was found to have 110 ppm of lead. Comparing results to previous studies in Sri Lanka, the paint market showed a significant improvement in the reduction of lead containing formulations (Figure 4). The percentage of paints below 90 ppm increased from previous surveys and none of the samples tested exceeded 10,000 ppm.

Figure 3: Two paint samples were falsely labeled for lead safety

[13] https://www.researchgate.net/publication/354604358_Safety_concerns_of_lead_chromate_in_enamel_paints_A_study_based_on_the_Sri_Lankan_enamel_paints_industry_after_the_lead_paint_regulatory_enforcement

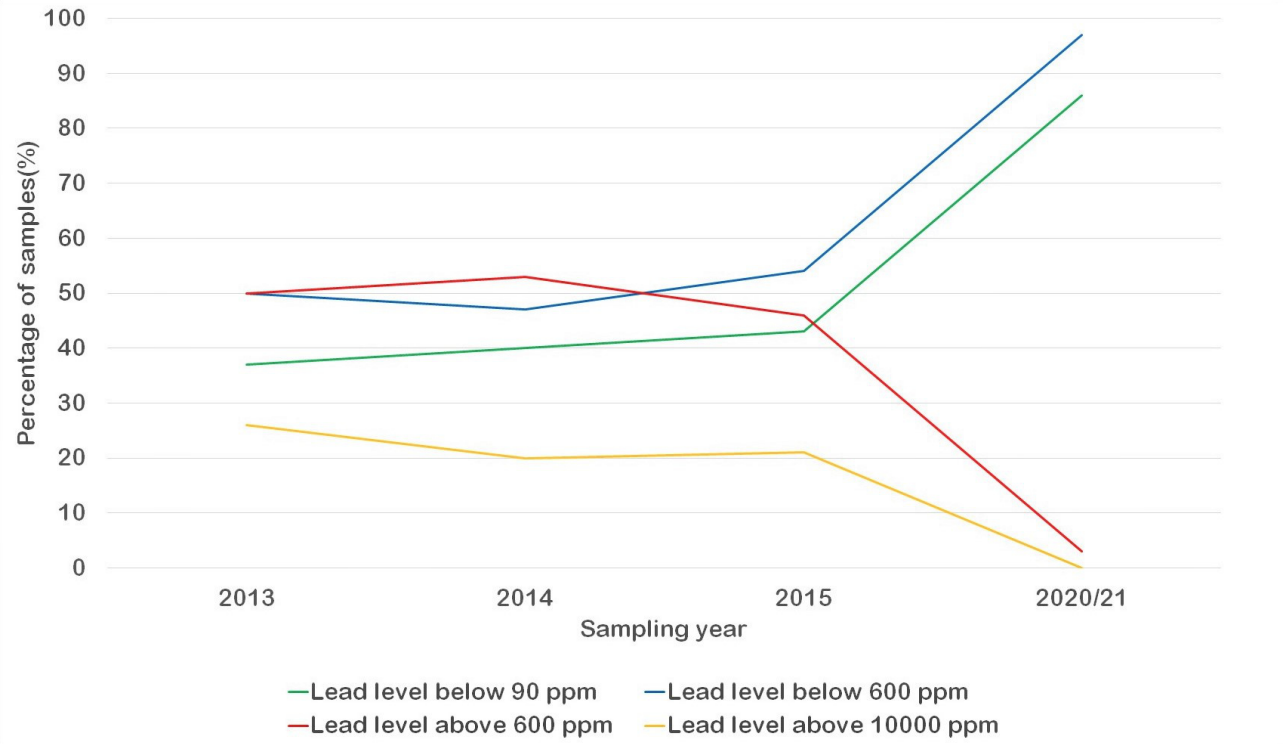

Figure 4: Percentage paint samples with lead concentration reported in four studies conducted from 2013 to current study.

LEAD REGULATORY FRAMEWORK IN SRI LANKA

As a result of the CEJ's lawsuit (Case No. 64/2011) requesting a mandatory standard, the Consumer Affairs Authority made the gazette notification, Gazette Extra Ordinary No 1725/30 on 30th of September 2011, establishing new mandatory standards for lead levels in paint to take effect in January 1, 2013 (Annex 1). It defined the mandatory standards for permissible levels of lead in each paint category as in Table 2.;

Table 2: The established maximum permissible levels of total lead for different paint categories

Paints for Toys and Accessories for Children (Soluble in HCl acid)	90 mg/kg
Enamel Paints	600 mg/kg
Emulsion Paints for Exterior use	90 mg/kg
Emulsion Paints for Interior use	90 mg/kg
Floor Paints	600 mg/kg

1 mg/kg corresponds to 1 part per million (ppm)

In 2014, the Consumer Affairs Authority brought a subsequent gazette requesting the lead level to be printed on the paint label. Since there were many arguments on this specially from paint manufacturers as they need to undergo testing for each batch which is impractical, this was amended in 2016. According to this Gazette Notification No. 1985/ 38, dated 23rd September 2016, it is mandatory to print a Declaration on the label that the total Lead content does not exceed the permissible maximum level of Lead content specified in Direction No. 36 issued by the Consumer Affairs Authority and published in Gazette Notification No. 1725/ 30, dated 30th September 2011.

Recommendations

Based on these test results, the lead paint regulatory framework in Sri Lanka should be updated to 90 ppm and be expanded to cover all paints and coating. Updating the standard to 90 ppm will also facilitate international trade by aligning Sri Lanka paints with restrictions in place in other countries in the region and with global markets for painted products. Given that it is impossible to monitor where paints sold at retail outlets are applied, the standards should not just address toys and household decorative paints but also anti-corrosive and industrial coatings, ceramic glazes, and inks.

Further regulatory measures are necessary to prohibit the use of lead chromate ($PbCrO_4$) as a pigment in paint. Studies reveal that it is being used in paint applications in Sri Lanka for some colors but safer substitutes are available to match these same properties. Measures need to be taken to ban the import, export, manufacture and use of these carcinogenic pigments.

For Regulatory Bodies

Reduce the maximum permissible Lead level to 90 ppm in all types of paint that include household decorative paints, paints applied on children's items, coatings, ceramic glazes, and inks.

Conduct annual surveillance for lead safety in paints sold at stores.

Ban the import, export, manufacture and use of carcinogenic pigments such as lead chromate ($PbCrO_4$).

Set regulations to standardize and monitor lead safety in toys and other products.

Monitor airborne lead emissions and the workers' blood lead levels at car battery/ Lead-acid battery recycling, production plants and E-waste recycling facilities.

For General Public

Choose Lead Safe Paint certified with third party testing.

Where possible choose water-based paint over oil-based paints.

If there are children under 5 years, keep the floors, window seals of the premises and children's toys dust free.

Choose unpainted wooden toys or cloth toys over plastic or painted toys where safety from chemicals is not guaranteed.

Safely dispose household electronic waste and lead batteries.

Take a balanced diet rich in calcium and iron

If your working place handles lead (car battery recycling, producing, e-waste, etc.) always use protective gear and follow safety protocols at workplace.

Conclusion

The results show a drastic improvement in Sri Lankan paint market with respect to removing lead additives in most paints. CEJ considers this as a great achievement of its 12-year campaign to eliminate lead paint in Sri Lanka.

However, the results of this survey suggest that enhanced regulation is needed to further reduce the allowable level of lead in paints and coatings. It is seen that lacquer is not safe to be applied on toys or any product made for children including murals and furniture where often they are applied. Instead, enamel paint may be a better alternative but consumers should seek Lead Safe Paint certification to demonstrate safety.

Anti-corrosive coatings that are sometimes considered "industrial" paints are available for purchase in small containers and are often applied on metal window grills and outdoor railings in Sri Lanka. They can eventually deteriorate and contaminate soil and dust in homes as well as preschool environments and expose children. In rural areas, these are applied on grill doors in preschools. Thus, it is recommended to use Lead Safe Certified anti-corrosive paints in such applications.

> It is high time to bring more stringent standards for Sri Lankan paints and we recommend the regulatory bodies to reduce the maximum permissible Lead level to 90 ppm in all types of paints, coatings, ceramic glazes, and inks.
> - Dilena Pathragoda, Executive Director, CEJ-

Annex 1

ශ්‍රී ලංකා ප්‍රජාතාන්ත්‍රික සමාජවාදී ජනරජයේ ගැසට් පත්‍රය

අති විශෙෂ

The Gazette of the Democratic Socialist Republic of Sri Lanka

EXTRAORDINARY

අංක 1725/30 - 2011 සැප්තැම්බර් 30 වැනි සිකුරාදා - 2011.09.30

No. 1725/30 - FRIDAY SEPTEMBER 30, 2011

(Published by Authority)

PART I : SECTION (I) — GENERAL

Government Notifications

Direction No. 36

CONSUMER AFFAIRS AUTHORITY ACT, No. 09 OF 2003

Direction under Section 12(2)

ACTING under the powers vested in it by Section 12(2) of the Consumer Affairs Authority Act, No. 09 of 2003, the Consumer Affairs Authority directs that no Manufacturer, Importer, Packer, Distributor or Trader shall manufacture, import and use or distribute, pack, store or sell or display for sale, expose for sale or offer for sale, wholesale or retail any paints unless such paints shall conform to the corresponding Total Lead Content given hereunder as specified by the Sri Lanka Standard Institution for such paints.

	Permissible Maximum Lead Content
Paints for Toys and Accessories for Children (soluble in HCI acid)	90 mg/kg
Enamel Paints	600 mg/kg
Emulsion Paints for Exterior use	90 mg/kg
Emulsion Paints for Interior use	90 mg/kg
Floor Paints	600 mg/kg

This Direction shall come into effect from 01st January, 2013.

By order of the Consumer Affairs Authority.

RUMY MARZOOK,
Chairman.

Colombo,
28th September, 2011.

10-379

PRINTED AT THE DEPARTMENT OF GOVERNMENT PRINTING, SRI LANKA.

1A

Annex 2

ශ්‍රී ලංකා ප්‍රජාතාන්ත්‍රික සමාජවාදී ජනරජයේ ගැසට් පත්‍රය

අති විශෙෂ

The Gazette of the Democratic Socialist Republic of Sri Lanka

EXTRAORDINARY

අංක 1985/38 - 2016 සැප්තැම්බර් මස 23 වැනි සිකුරාදා - 2016.09.23

No. 1985/38 – FRIDAY SEPTEMBER 23, 2016

(Published by Authority)

PART I : SECTION (I) — GENERAL

Government Notifications

Direction No. 61

CONSUMER AFFAIRS AUTHORITY ACT, No. 09 OF 2003

Direction under Section 10(1)(a)

ACTING under the powers vested in it by Section 10(1)(a) of the Consumer Affairs Authority Act, No. 09 of 2003, the Consumer Affairs Authority directs all manufacturers and traders of paints, varnishes and solvents used in the building industry that on the bottles, packs or containers of such paints, varnishes and solvents the following information shall be printed legibly.

(a) Batch No.
(b) Date of Manufacture
(c) Best before date
(d) Volume
(e) Maximum retail price
(f) A Declaration to the effect that the total Lead content does not exceed the permissible maximum level of Lead content specified in Direction No. 36 issued by the Consumer Affairs Authority and published in *Gazette* Notification No. 1725/ 30, dated 30.09.2011.

The Consumer Affairs Authority do by this Direction, rescind Direction No. 50 published, in *Gazette Extraordinary* No. 1875/38 dated 15th August 2014.

This Direction shall come into effect from 1st January, 2017.

By order of the Consumer Affairs Authority,

HASITHA TILLEKERATNE,
Chairman.

Colombo,
22nd September 2016.

10-193

PRINTED AT THE DEPARTMENT OF GOVERNMENT PRINTING, SRI LANKA.

1A

This Gazette Extraordinary can be downloaded from www.documents.gov.lk

Annex 3

Paint Manufacturer	Product Name	Paint Type	Colour	MF Date	B. No	Lead safe'	Pb content / mg/kg (ppm)
Tested at SGS Galson Laboratories (USA)							
ASIAN PAINTS (Lanka) LIMITED	Asian paints	Enamel	Poppy	16.12.2019	A119120001		21
Causeway Paints Lanka (pvt) Ltd	Causeway - Kenlux	Enamel	Post office Red	07.11.2019	106382997	Pb safe	12
Lanka Paint Solutions (Pvt) Ltd	Evershine	Enamel	Saffron	20.08.2020	Bx.0032	Pb <600mg/kg	12
Lanka Paint Solutions (Pvt) Ltd	Evershine	Enamel	White	22.07.2020	Bx.0124	Pb <600mg/kg	11
Macksons paints Worldwide	Micron	Enamel	Golden Brown	07.07.2020	Bx.EE37927-1	Max Pb 600mg/ltr	12
Peacock Enterprises (pvt) Ltd	Bergo	Floor paint	Oxide red	05.04.2019			10
Nippon paint Lanka (pvt) Ltd	Nippolac	Enamel	Bright green	31.01.2020	1101590261	Pb Safe	12
Industrial Asphalts (Ceylon) PLC	Britex	Anti-corrosive	Red	19.09.2020	00070-05R	Pb Safe	700
Royal paints Lanka (Pvt) Ltd	Royal paint	Enamel	Post office red	07.11.2018	18107894	Pb < 90mg/kg	64
ASH chem Industries	ASH	Varnish	Mahogany	01.07.2020		Pb free	34
Nimro Paint Industries (pvt) Ltd	Nimlac	Enamel	Navy blue	06.08.2020	281		12
Lionx Paints	Colormax	Lacquer	Yellow		2		11
Mayura Colour Paint Lanka (pvt) Ltd	Multico	Enamel	Flame orange	8.2014	140808	Pb Safe	12
Kansai paints Lanka (pvt) Ltd	Kansai paint	Enamel	Post office red	12.08.2018	19081944	No Add Pb	16
Superchem Chemicals	Hailco	Floor paint	Red	15.02.2020	1036	Pb free	12
Colourlac Paints	Colourlac	Floor paint	Red	03.03.2020	614	No add Pb	12
Semax Chemical Industries	Seimax	Lacquer	Blue	05.05.2020	00-2		110
Nature Paints & Chemical Industries	Nature	Enamel	Black	2.2020.	80213	Pb Free	12
Lankem Ceylon PLC	Rolac	Enamel	Black	15.02.2016	G.0000243268		59
Berlux Paints (pvt) Ltd	Berlux	Enamel	Red	7.2020.	FG.27XX4091	Pb Free	12
Sarathchandra Chemicals (pvt) Ltd	Deltex	Lacquer	Red	19.08.2020	2034031	Pb <20 mg/kg	12
Macksons paints Worldwide	Mitsuko	Auto paint	Red	25.01.2020	AG5695-1	Mx Pb < 600mg/kg	12
Paints & General Industries Limited	Duco	Auto paint	Green	01.04.2020	Bx.003NRP/0620	No Add Pb	12
Enico Chemical Industries (Pvt) Ltd	Enico	Anti-corrosive	Black	26.12.2020	649		12
Purelac Coatings (Pvt) Ltd	Purelac	Anti-corrosive	Black	16.10.2020	20201040		16
Nippon Paint Lanka (Pvt) Ltd	Nippolac	Anti-corrosive	Black	23.06.2020	1101596825	T. Pb <90 ppm	12
Universal Paints Industries (Pvt) Ltd	Microglaze	Floor Paint	Red	04.101.2020	593	No add Pb, Hg	10
Universal Paints Industries (Pvt) Ltd	Paint Master	Anti-corrosive	Black	12.02.2020	595	No add Pb, Hg	12
Causeway Paints Lanka (Pvt) Ltd	Kenlux	Anti-corrosive	Red	28.12.2017	304663(3)	Pb safe	12
Silver Star	Silver Star	Lacquer	yellow	05.02.2018	SSP9180205	Pb free	110

Tested at SGS Sri Lanka							
Paint Manufacturer	**Product Name**	**Paint Type**	**Colour**	**MF Date**	**B. No**	**Lead safe'**	**Pb content / mg/kg (ppm)**
CAUSEWAY OAINTS LANKA (PVT)LTD	Causeway	Hammer Finish	Lagoon	6/25/2021	107721219		5
Macksons Paints Lanka (Pvt)Ltd	Multilac	Anti-Corrosive	Red Oxide	10/1/2018	Ex. EE34848-1	lead safe paint label & lead-free kids label	227**
ROYAL PAINTS LANKA (PVT) LTD	Royal	Anti-Corrosive	Black	2/11/2021	21022687	no added lead & note: lead content below 600mg/kg	113**
NIPPON PAINT LANKA (PVT) LTD	Nippolac	Lacquer	Bright green	6/13/2020	BN£1595699		5
UNIVERSAL PAINTS INDUSTRIES (PVT) LTD	Universal paints	Lacquer	Blue	3/3/2021	CL083	No added Lead	5
Macksons Paints Lanka (Pvt)Ltd	Multilac	Lacquer	Blue	Jun-16	Bx. 368		5
Macksons Paints Lanka (Pvt)Ltd	Multilac	Roofing Paint (solvent base)	Tile Red	10/7/2021	Bx. EE 32410-1	lead safe paint label & lead-free kids label & note: max. lead content <600mg	5

** Although these are above 90 mg/kg, for anti-corrosive paints, Sri Lankan permissible level is 600 mg/kg

Lead Content of Paints in Sri Lanka

October 2021

Centre for Environmental Justice - is a public interest national level environmental organization based in Sri Lanka working towards environmental justice and good Governance. CEJ advocates for a better world for the future generation through campaigning, research, awareness, litigation and lobbying.

Occupational Knowledge International -

Occupational Knowledge International (OK International) is a nonprofit organization dedicated to improving public health through innovative strategies to reduce exposures to industrial pollutants. We seek to address inequities in environmental standards between developed and developing countries by working in partnership with industry, government and non-governmental organizations (NGOs)