



# Main Comments, Feedbacks that Led to the Latest Draft of the Paint Reformulation Technical Guidelines

April 2021

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# Comments, Feedbacks

There were several written comments

## 1. Nexus

### **Additional information** about

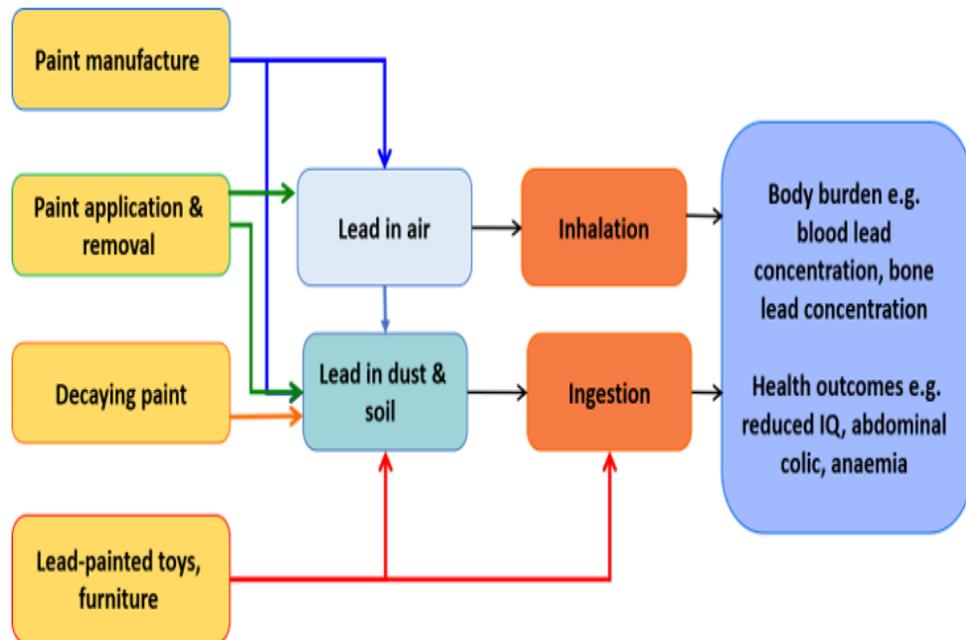
- lead exposures impact on workers' health and other populations, not only children
- methodology used for paint sampling testing/analysis
- equipment needed for a certified lead analysis laboratory

**Request** to include other names/terms for PY 34 and PR 104 as Indonesian paint manufacturers are not familiar with these terms.



# Lead exposures impact on workers' health and other populations, not only children

## Chapter 4 – Lead in Paint was amended



Reference to **Global elimination of lead paint: why and how countries should take action.** Technical brief. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO

# Methodology used for paint sampling testing/analysis

## **APPENDIX 4 – SELECTED LIST OF ISO STANDARDS FOR GENERAL TEST METHODS FOR PAINTS AND VARNISHES**

### **ISO 1513:2010 - Examination and preparation of test samples**

ISO 1513:2010 specifies both the procedure for preliminary examination of a single sample, as received for testing, and the procedure for preparing a test sample by blending and reduction of a series of samples representative of a consignment or bulk of paint, varnish or related product.



# Equipment needed for a certified lead analysis laboratory

The Guidelines are not related to these kind of analyses, reference to the WHO brief guide was given.

“WHO Brief guide to analytical methods for measuring lead in paint, second edition”

<https://apps.who.int/iris/bitstream/handle/10665/332932/9789240006058-eng.pdf>



# Request to include other names/terms for PY 34 and PR 104 as Indonesian paint manufacturers are not familiar with these terms

This cannot be changed (short description about Colour Index was given in the Section 6.2)

- The Colour Index (CI) is the universally accepted standard coding system for pigments.
- Chemical formula and the CAS Numbers for the lead pigments are given in the Table 2.

# Comments, Feedbacks

## 2. DCC Colourants

The company does not want to share information about their testing related to alternative pigments

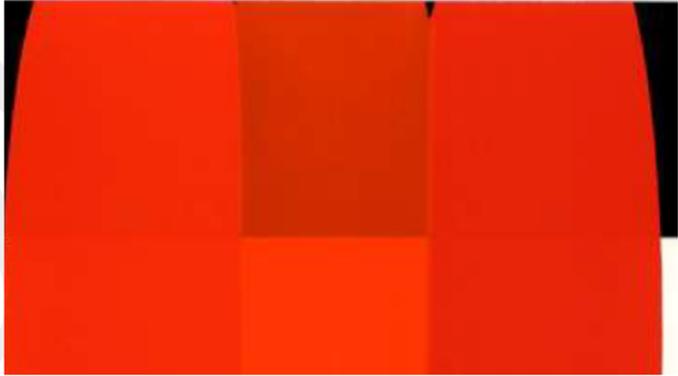
### Section 6.6 - Substitution of Lead Chromate (PY 34) and Lead Chromate Molybdate Sulphate (PR 104)

The goal was to provide complete, most comprehensive information in the document, thus allowing the reader to find all information on one place, clearly indicating where those data are coming from.



Table 21 – Assessment of PO 67 as an Alternative to PR 104

Request	PR 104	PO 67
<b>Function</b>	Extremely durable paints with excellent hiding power, signal and contrast function of the colour. Excellent bleeding properties. Excellent gloss retention, the vibrant and deep colours of PY 34 and PR 104 do not fade or dull over time.	Inferior durability and gloss retention, but pigment is suitable for outdoor use. Heat stability is good, bleeding may occur.
<b>Production process</b>		There is no need for changes in the production process, but because of the inferior dispersibility of organic pigments, the grinding stage takes more <u>time</u> and more energy is required.
<b>Environmental and human health hazard</b>	<p><b>H350</b> – May cause <u>cancer</u></p> <p><b>H360</b> - May damage fertility or the unborn child</p> <p><b>H373</b> - May cause damage to organs through prolonged or repeated exposure</p> <p><b>H400</b> - Very toxic to aquatic life</p> <p><b>H410</b> - Very toxic to aquatic life with long lasting effects</p>	The pigment does not have adverse effects on human health or the environment.
<b>Economic feasibility</b>		To achieve opacity much more pigment needs to be added. Unit price is quite high. Price is EUR 30-40 per kg
<b>Availability</b>		Limited availability as BASF is the only producer

Pigment	Colour Comparison
PO 67	<p>The pigment has similar chroma, <u>however</u> shade functionality is worse than PO 104.</p>  <p>Yellow shade PR 104    PO 67    Blue shade PR 104</p>

Pigment	Comparison with Lead Pigment
<p style="text-align: center;"><b>PO 67</b></p>	<p><b>Function:</b> This pigment may be used for outdoor paint formulations despite a bit inferior durability and gloss retention compared to PR 104.</p> <p><b>Technical feasibility:</b> There is no need for changes in the production process, but because of the inferior dispersibility of organic pigments, the grinding stage takes more time, and more energy is required.</p> <p><b>Environmental and human health hazard:</b> This pigment <u>does not</u> have adverse effects on human health or the environment.</p> <p><b>Economic feasibility:</b> This pigment is much more expensive than PR 104.</p> <p><b>Availability:</b> Limited availability.</p>

# Comments, Feedbacks

PPG – Columbia

“Do you consider it necessary or desirable to encourage the development of reformulation guidelines for waterborne paint?”

I don't think it is needed, there are pigments and pigment preparations for waterborne paints (BASF, Clariant...). Basics are mentioned in the Guidelines. The Guidelines are about general principles of reformulation, there are no specific cases. Cooperation with suppliers helps to choose the right combination (principles are the same as for solvent-based paints)



THANK YOU!

