CONTROL OF LEAD EXPOSURE FROM LEAD PAINT IN SOUTH AFRICA



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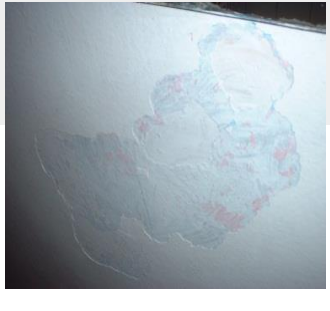
LEAD IN PAINT: A PICA CASE STUDY

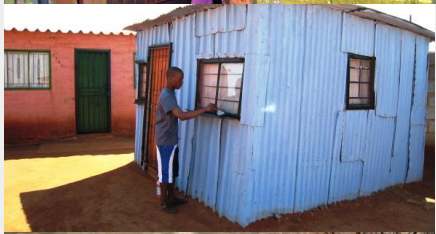
- 2002 - survey of 1287 first grade children;
- Mean blood lead level = 7.4 µg/dl
- Outlier - BLL = 44.4 (repeat = 51.5 µg/dl)
- Home visit - severe pica habit – paint, soil & putty
- Home paint lead levels up to 46 000 µg/g (reference level: 5 000 µg/g)
- Elevated paint lead level at school as well
- Lead poisoning undiagnosed by health services.

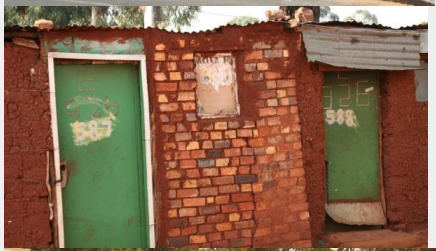


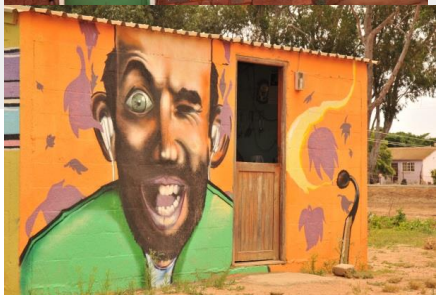


PAINT LEAD LEVELS IN JOHANNESBURG HOMES

- 316 homes selected from 60 randomly selected suburbs
- Stratified by age of suburb
- Paint lead levels: undetectable to 29 000 µg/g
- 20% of homes had paint with high lead levels
- Homes with high lead levels in high as well as low-income suburbs
- Homes with high lead levels in old as well as newly proclaimed suburbs







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A preliminary study of residential paint lead concentrations in Johannesburg ☆

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LEAD IN PAINT APPLIED TO PLAY EQUIPMENT IN PUBLIC PARKS

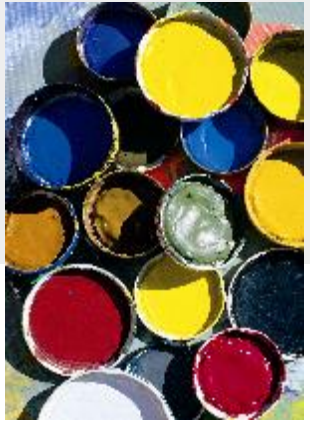
	Johannesburg	Ekurhuleni	Tshwane	Total Sample
Number of measurements	843	325	980	2148
Maximum lead level (mg/cm^2)	6.8	8.9	10.4	10.4
Mean lead level (mg/cm^2)	1.1	1.2	1.8	1.9
Standard Deviation	1.2	1.6	1.9	1.6
% > 1 reference level (1 mg/cm^2)	40%	37%	58%	48%
% chipping	87%	86%	79%	83%

LEAD IN PAINTED CHILDREN'S TOYS

- Small sample of painted toys purchased from toys stores, supermarkets, flea markets and stationery stores
- Lead concentrations ranged up to 145 000 µg/g;
- Most toys manufactured in South Africa;
- Informal sector;
- Pica and mouthing behaviour in early life.

STUDY OF LEAD CONCENTRATIONS IN PAINT | 2004

- Study of lead concentrations in “off the shelf” enamel paints undertaken in 2004;
- Lead concentrations ranged from “not detectable” to 189 000 ppm (38 times higher than the reference level)
- 66% of enamel paint samples had elevated lead concentrations
- No warning labels



GOVERNMENT NOTICE

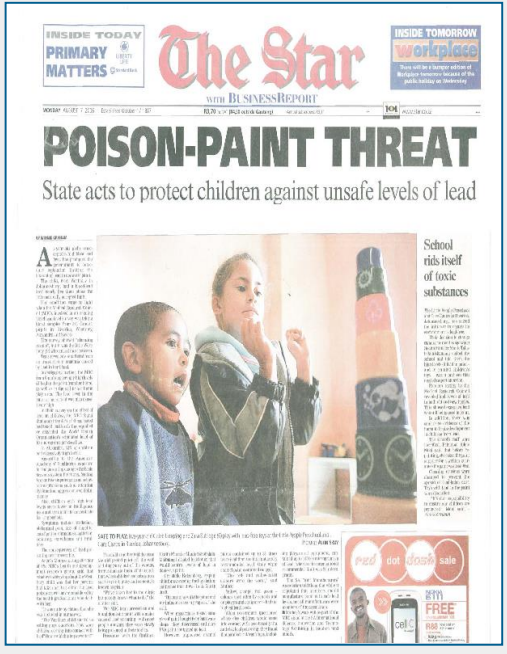
DEPARTMENT OF HEALTH

No. 801 **31 July 2009**

HAZARDOUS SUBSTANCES ACT, 1973 (ACT 15 OF 1973)

DECLARATION OF LEADED PAINT AS GROUP 1 HAZARDOUS SUBSTANCE

- 600 ppm
- Certain paints excluded



INSIDE TODAY
PRIMARY MATTERS

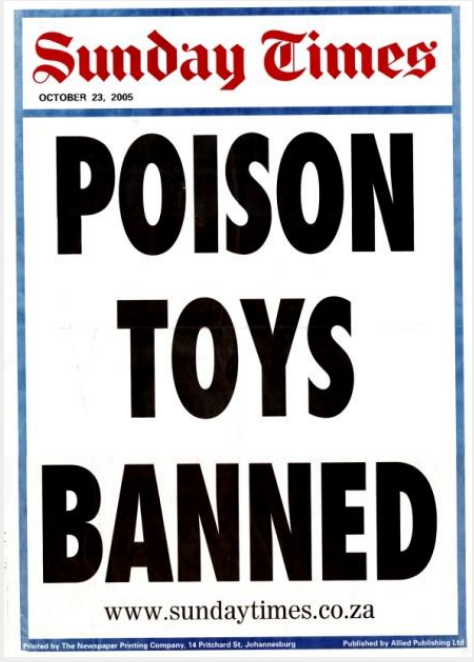
The Star
with BUSINESS REPORT

INSIDE TOMORROW
workplace

POISON-PAINT THREAT

State acts to protect children against unsafe levels of lead

School rids itself of toxic substances



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OCTOBER 23, 2005

POISON TOYS BANNED

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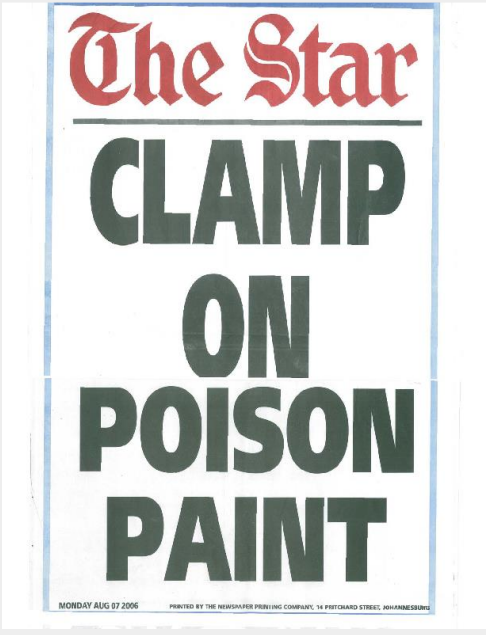

The Star

CLAMP ON POISON PAINT

MONDAY AUG 07 2006
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STUDY OF LEAD CONCENTRATIONS IN PAINT (post-regulation, 2012)

- Study of lead concentrations in “off the shelf” enamel paints undertaken in 2012;
- Lead concentrations ranged from < 0.25 to 169 000 ppm (282 times higher than SA regulations; 1878 times higher than USA reference level)
- 40% of enamel paint samples had elevated lead concentrations
- Mislabelling: lead paint with no warning label or with label indicating “lead free”.

RECOMMENDATIONS TO NATIONAL DEPARTMENT OF HEALTH (2016)

- Lowering of the current maximum permissible level of lead in paint from 600 ppm to 90 ppm
- All paints to be lead-free
- Support from paint industry.