



PESTICIDE ACTION NEXUS
ASSOCIATION (PAN-Ethiopia)



Ethiopia Lead Paint Data

2014-15, Pesticide Action Nexus Association (PAN-Ethiopia) purchased a total of 36 cans of solvent-based enamel decorative paints from the largest market place in Addis Ababa, Ethiopia. The paints were from nine paint brands and all were produced by Ethiopian companies.

Three paint colors (yellow, orange and red colors) were included in the sampling since a previous study had shown that they were likely to contain high lead concentrations. One white paint from each brand was also analyzed.

Samples from all the paints were analyzed for their total lead content (dry weight) using the EPA 3050B/7420 method reference by the Forensic Analytical Laboratories, an accredited laboratory in the USA.

At the time this data was collected and analyzed Ethiopia had no regulation limiting the manufacture, sale, import or use of paint with high lead content.

Lead Levels in Paint

- 28 of the 36 paints (78% of paints) had a lead content greater than 90 ppm. The same number of paints had lead content greater than 600 ppm.
- 17 of the thirty-six paints had a lead concentration greater than 10,000 ppm. Brands selling paints with extremely high lead levels include; Mega, Kokeb, Mural, Dil, Kadisco, Abay Bright and Nile paints. The orange paint from the Abay brand had a lead content of 110,000 ppm.
- Eight (22%) of the thirty six samples contained lead levels below 90 ppm. These producers are: Rainbow Paints (white, orange and red colors), Kadisco Paints (white), Bright Paints (white, orange and red colors) and Nile Paints (white color).

Lead Levels by Brand

- Three out of four paints analyzed from Bright and Rainbow Paints contained less than 90 ppm lead. One of four paints analyzed from Nile and Kadisco Paints contained less than 90 ppm lead. However, each of these same four manufacturers also produced paints with lead levels above 90 ppm. All paints from all other producers contained more than 90 ppm lead.
- 17 of the thirty-six paints (47 percent) had lead content greater than 10,000 ppm lead. At least one or more products from all the brands, except the Rainbow brand, had lead content greater than 10,000 ppm lead.

Lead Levels by Color

- White colored paints had, on average, the lowest lead content, and 4 of 9 white paints (44 percent of white paints) contained lead levels below 90 ppm. Only one of the nine white paints analyzed had a lead content greater than 5,000 ppm lead.
- A total of 24 brightly colored paints were analyzed for total lead content in Ethiopia. One or more colored decorative paint from each brand had a lead content greater than 10,000 ppm except from the Rainbow Paint brand.
- On average the yellow, orange and red colored decorative paints contained 47,900 ppm, 31,100 ppm, and 10,200 ppm lead respectively.

Comparison with results from 2012/13 Analysis

- Most (19) of the brand/colors analyzed in 2014/15 were also analyzed in 2012/13. Results for 17 of the 19 sampled paints were virtually the same in both studies.

Consumer Information

- None of the paint can labels carried information about the type and amount of ingredients including lead

The report was prepared by Pan-Ethiopia with support and assistance from the African Lead Paint Elimination Project, which was established to eliminate lead in paint and raise widespread awareness about the adverse human health impacts of lead-based paints, particularly on the health of children under six years old.

The Africa Lead Paint Elimination Project carries out focused activities to eliminate lead in paint in four project countries – Cameroon, Ethiopia, Ivory Coast, and Tanzania. The project is funded by the Global Environment Facility; the United Nations Environment Programme (UNEP) is the Project Implementing Agency; and IPEN is the Project Executing Agency. The contents of this booklet, however, are the sole responsibility of IPEN and Pan-Ethiopia.

Pesticide Action Nexus Association (PAN-Ethiopia) works on environment and development issues to contribute to the eradication of poverty in Ethiopia and beyond through raising awareness among the public in order to prevent the negative public health and environmental impacts of pesticides and other hazardous substances. Its main purpose is to support policies and strategies that enhance and promote the implementation of a safe and sustainable environment for all people and other living things, keeping them protected from harm posed by hazardous substances by building close collaboration among government and non-governmental organizations, civil society interest groups, urban and rural communities, nationally and internationally. PAN-Ethiopia coordinates the IPEN E-products working group.

ETHIOPIA LEAD PAINT DATA

TABLE 1. SOLVENT-BASED, ENAMEL DECORATIVE PAINTS PURCHASED AND ANALYZED FOR LEAD CONTENT IN ETHIOPIA

Sample Number	Brand Name	Color of Paint	Paint Can Size	Purchase Price Per Litre (Birr)	Date Manufactured	Batch Number	Date of Purchase	Website on Label
ETH-30	Mega Paints	White	1 Lt	69.56	Not stated	69780	Jan. 2015	NA
ETH-31	Mega Paints	Yellow	1 Lt	69.56	Not stated	69930	Jan. 2015	NA
ETH-32	Mega Paints	Orange	1 Lt	69.56	Not stated	66848	Jan. 2015	NA
ETH-33	Mega Paints	Red	4 Lt	216.00	Not stated	68817	Jan. 2015	NA
ETH-34	Kokeb Paints	White	1 Lt	61.74	Not stated	311974	Jan. 2015	NA
ETH-35	Kokeb Paints	Yellow	4 Lt	202.61	Not stated	111834	Jan. 2015	NA
ETH-36	Kokeb Paints	Orange	1 Lt	55.65	Not stated	107489	Jan. 2015	NA
ETH-37	Kokeb Paints	Red	1 Lt	61.74	Not stated	109916	Jan. 2015	NA
ETH-38	Mural Paints	White	1 Lt	73.91	Not stated	NA	Jan. 2015	Muralpaints.eth@gmail.com
ETH-39	Mural Paints	Yellow	1 Lt	73.91	Not stated	NA	Jan. 2015	Muralpaints.eth@gmail.com
ETH-40	Mural Paints	Orange	1 Lt	73.91	Not stated	NA	Jan. 2015	Muralpaints.eth@gmail.com
ETH-41	Mural Paints	Red	1 Lt	73.91	Not stated	NA	Jan. 2015	Muralpaints.eth@gmail.com
ETH-42	Dil Paints	White	1 Lt	73.91	Not stated	234342	Jan. 2015	Midroc-ethio-techgroup.com

Sample Number	Brand Name	Color of Paint	Paint Can Size	Purchase Price Per Litre (Birr)	Date Manufactured	Batch Number	Date of Purchase	Website on Label
ETH-43	Dil Paints	Yellow	1 Lt	73.91	Not stated	131541	Jan. 2015	Midroc-ethio-techgroup.com
ETH-44	Dil Paints	Orange	1 Lt	73.91	Not stated	232009	Jan. 2015	Midroc-ethio-techgroup.com
ETH-45	Dil Paints	Red	1 Lt	82.61	Not stated	233804	Jan. 2015	Midroc-ethio-techgroup.com
ETH-46	Rainbow Paints	White	4 Lt	104.35	Not stated	117	Jan. 2015	NA
ETH-47	Rainbow Paints	Yellow	4 Lt	100.00	Not stated	227	Jan. 2015	NA
ETH-48	Rainbow Paints	Orange	4 Lt	243.48	Not stated	663	Jan. 2015	NA
ETH-49	Rainbow Paints	Red	4 Lt	286.96	Not stated	625	Jan. 2015	NA
ETH-50	Kadisco Paints	White	1 Lt	73.91	Not stated	(001)14-29214	Jan. 2015	NA
ETH-51	Kadisco Paints	Yellow	1 Lt	61.74	Not stated	(172)5-39870	Jan. 2015	NA
ETH-52	Kadisco Paints	Orange	1 Lt	55.65	Not stated	(131)14-28261	Jan. 2015	NA
ETH-53	Kadisco Paints	Red	1 Lt	65.00	Not stated	(173)14-29712	Jan. 2015	NA
ETH-54	Abay Paints	White	4 Lt	224.35	03 Feb. 2015	4199	Jan. 2015	abaypaints@gmail.com
ETH-55	Abay Paints	Yellow	4 Lt	224.35	26 Nov. 2014	3911	Jan. 2015	abaypaints@gmail.com
ETH-56	Abay Paints	Orange	4 Lt	220.00	Not stated	NA	Jan. 2015	abaypaints@gmail.com
ETH-57	Abay Paints	Red	4 Lt	229.57	03 Feb. 2015	4196	Jan. 2015	abaypaints@gmail.com

Sample Number	Brand Name	Color of Paint	Paint Can Size	Purchase Price Per Litre (Birr)	Date Manufactured	Batch Number	Date of Purchase	Website on Label
ETH-58	Bright Paints	White	4 Lt	215.00	Not stated	8720	Jan. 2015	brightpaintsfactory@ethionet.et
ETH-59	Bright Paints	Yellow	4 Lt	218.00	Not stated	8351	Jan. 2015	brightpaintsfactory@ethionet.et
ETH-60	Bright Paints	Orange	4 Lt	110.00	Not stated	8714	Jan. 2015	brightpaintsfactory@ethionet.et
ETH-61	Bright Paints	Red	4 Lt	220.00	Not stated	7143	Jan. 2015	brightpaintsfactory@ethionet.et
ETH-62	Nile Paints	White	4 Lt	208.70	Not stated	E1406...SE	Jan. 2015	www.emiratethiopaints
ETH-63	Nile Paints	Yellow	4 Lt	208.70	Not stated	E1406...SE	Jan. 2015	www.emiratethiopaints
ETH-64	Nile Paints	Orange	1 Lt	64.35	Not stated	E1405...SE	Jan. 2015	www.emiratethiopaints
ETH-65	Nile Paints	Red	1 Lt	64.35	Not stated	E1406...SE	Jan. 2015	www.emiratethiopaints

TABLE 2: RESULTS OF LEAD ANALYSIS FOR SOLVENT-BASED ENAMEL DECORATIVE PAINTS PURCHASED IN ETHIOPIA

Sample Number	Brand Name	Color of Paint	Lead Content of Paint (ppm)	Country of Brand Headquarters	Country Where Manufactured	Is there information on can about lead content of paint?
ETH-30	Mega Paints	White	5,200	Ethiopia	Ethiopia	NO
ETH-31	Mega Paints	Yellow	44,000	Ethiopia	Ethiopia	NO
ETH-32	Mega Paints	Orange	16,000	Ethiopia	Ethiopia	NO
ETH-33	Mega Paints	Red	2,500	Ethiopia	Ethiopia	NO
ETH-34	Kokeb Paints	White	4,900	Ethiopia	Ethiopia	NO
ETH-35	Kokeb Paints	Yellow	81,000	Ethiopia	Ethiopia	NO
ETH-36	Kokeb Paints	Orange	15,000	Ethiopia	Ethiopia	NO
ETH-37	Kokeb Paints	Red	4,300	Ethiopia	Ethiopia	NO
ETH-38	Mural Paints	White	2,200	Ethiopia	Ethiopia	NO
ETH-39	Mural Paints	Yellow	37,000	Ethiopia	Ethiopia	NO
ETH-40	Mural Paints	Orange	28,000	Ethiopia	Ethiopia	NO
ETH-41	Mural Paints	Red	18,000	Ethiopia	Ethiopia	NO
ETH-42	Dil Paints	White	2,100	Ethiopia	Ethiopia	NO
ETH-43	Dil Paints	Yellow	90,000	Ethiopia	Ethiopia	NO
ETH-44	Dil Paints	Orange	59,000	Ethiopia	Ethiopia	NO
ETH-45	Dil Paints	Red	2,700	Ethiopia	Ethiopia	NO
ETH-46	Rainbow Paints	White	<60	Ethiopia	Ethiopia	NO

Sample Number	Brand Name	Color of Paint	Lead Content of Paint (ppm)	Country of Brand Headquarters	Country Where Manufactured	Is there information on can about lead content of paint?
ETH-47	Rainbow Paints	Yellow	890	Ethiopia	Ethiopia	NO
ETH-48	Rainbow Paints	Orange	<60	Ethiopia	Ethiopia	NO
ETH-49	Rainbow Paints	Red	<60	Ethiopia	Ethiopia	NO
ETH-50	Kadisco Paints	White	<60	Ethiopia	Ethiopia	NO
ETH-51	Kadisco Paints	Yellow	35,000	Ethiopia	Ethiopia	NO
ETH-52	Kadisco Paints	Orange	49,000	Ethiopia	Ethiopia	NO
ETH-53	Kadisco Paints	Red	20,000	Ethiopia	Ethiopia	NO
ETH-54	Abay Paints	White	4,200	Ethiopia	Ethiopia	NO
ETH-55	Abay Paints	Yellow	83,000	Ethiopia	Ethiopia	NO
ETH-56	Abay Paints	Orange	110,000	Ethiopia	Ethiopia	NO
ETH-57	Abay Paints	Red	3,400	Ethiopia	Ethiopia	NO
ETH-58	Bright Paints	White	70	Ethiopia	Ethiopia	NO
ETH-59	Bright Paints	Yellow	43,000	Ethiopia	Ethiopia	NO
ETH-60	Bright Paints	Orange	70	Ethiopia	Ethiopia	NO
ETH-61	Bright Paints	Red	<60	Ethiopia	Ethiopia	NO

Sample Number	Brand Name	Color of Paint	Lead Content of Paint (ppm)	Country of Brand Headquarters	Country Where Manufactured	Is there information on can about lead content of paint?
ETH-62	Nile Paints	White	<60	Ethiopia	Ethiopia	NO
ETH-63	Nile Paints	Yellow	17,000	Ethiopia	Ethiopia	NO
ETH-64	Nile Paints	Orange	2,900	Ethiopia	Ethiopia	NO
ETH-65	Nile Paints	Red	41,000	Ethiopia	Ethiopia	NO

TABLE 3. DISTRIBUTION OF LEAD CONCENTRATION BY BRAND OF SOLVENT-BASED, ENAMEL DECORATIVE PAINTS PURCHASED IN ETHIOPIA

Brand	Number of Paints	Average Lead Content (ppm, Dry Weight)	Number of Paints >90 ppm Lead	Number of Paints >600 ppm Lead	Number of Paints >10,000 ppm Lead	Minimum Lead Concentration (ppm)	Maximum Lead Concentration (ppm)
Mega Paints	4	16,900	4	4	2	2,500	44,000
Kokeb Paints	4	26,300	4	4	2	4,300	81,000
Mural Paints	4	21,300	4	4	3	2,200	37,000
Dil Paints	4	38,500	4	4	2	2,100	90,000
Rainbow Paints	4	268	1	1	0	<60	890
Kadisco Paints	4	26,020	3	3	3	<60	49,000
Abay Paints	4	50,200	4	4	2	3,400	110,000
Bright Paints	4	10,800	1	1	1	<60	43,000
Nile Paints	4	15,200	3	3	2	<60	41,000

** When calculating the averages, levels < 60 ppm were approximated to 60 ppm*

TABLE 4. LEAD CONCENTRATION BY COLOR OF SOLVENT-BASED, ENAMEL DECORATIVE PAINTS PURCHASED IN ETHIOPIA

Color	Number of Samples	Average Lead Concentration (ppm)	Number of Samples >90 ppm Lead	Number of Samples >600 ppm Lead	Number of Samples >10,000 ppm Lead	Minimum Lead Concentration (ppm)	Maximum Lead Concentration (ppm)
White	9	2,090	5	5	0	<60	5,200
Yellow	9	47,900	9	9	8	890	90,000
Orange	9	31,100	7	7	6	<60	110,000
Red	9	10,200	7	7	3	<60	41,000