

Shocking! Arsenic on your Lips and Lead in your Eyes

Tests reveal 4 brands of Lipstick with high Arsenic levels and 2 brands of Kajal with high Lead content



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ooking good has become important for both the sexes. The huge amounts spent on advertising are yielding rich dividends for manufacturers of cosmetics. According to figures given by the Confederation of Indian Industry (CII), the size of the Indian beauty and cosmetic market is US \$ 950 million (Rs. 6,049 crore) showing a growth of 15-20% per annum.

However, the cosmetics industry has not kept pace with safety innovations due to a weak regulatory system. This, and ignorance about chemical hazards among consumers, has enabled manufacturers to hide the true toxicity of their products.

Hidden danger

Cosmetics contain a variety of chemicals and some of them are toxic. Even minute amounts of toxic

chemicals applied regularly can cause an adverse cumulative effect. Sometimes, contaminants such as heavy metals get into the products when poorquality ingredients are used. Heavy metals in cosmetics can be absorbed easily as cosmetics are applied to the delicate facial skin, eyes and lips. There are three types of exposure that can result – dermal (most significant), oral and/or inhalation exposure.

Alarming findings

Shockingly high levels of Arsenic in Lipstick and Lead in Kajal were found when we tested these cosmetics for safety against the standards set by the Bureau of Indian Standards (BIS).

We tested four categories of cosmetics namely, Lipstick, Kajal, Hair Colour and Nail Polish for the presence of two heavy metals — Lead and Arsenic. Twelve brands were tested in each category, four cheap, four mid-range and four high-end brands. Kajal and Hair Colour brands were tested only for lead.

LIPSTICK

Tests revealed alarmingly high levels of Arsenic in

four brands. While the BIS has set the limit of 2mg/kg, *Coloressence Mesmerising Lip Colour* contained the highest level of 9.59mg/kg followed by 7 *Heaven's*Super Matte Lipstick

(9.28mg/kg), *Tian Nuo*

(9.22mg/kg) and *MakeOver Professional* (8.28mg/kg).

The Lead content in all Lipstick brands tested fell well within the BIS limit of 20mg/kg. However, the four brands having high Arsenic also had

Adverse health effects

Arsenic: Long-term exposure to Arsenic (if ingested) can cause cancer, skin lesions, hair loss, developmental effects, cardiovascular disease, neurotoxicity and diabetes.

Lead: Exposure to Lead has adverse effects on numerous organs and systems including the central nervous system, kidneys and blood forming systems. It can cause brain damage, hearing loss, miscarriage and increased blood pressure. Lead also gets stored in the bones.

comparatively higher Lead content. *Tian Nuo* had the highest Lead content of 4.97mg/kg. (See table for detailed results)

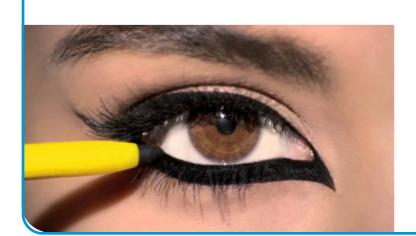
High Arsenic levels in Lipstick brands

Brand/Manufacturer	Price Rs.	Lead mg/kg*	Arsenic mg/kg**
Revlon Super Lustrous Lipstick	550	0.29	BQL
ColorBar USA Crème Touch Lipstick	475	0.28	BQL
Maybelline New York	399	BQL	BQL
Lakme Enrich Lipcolour	240	0.43	BQL
MakeOver Professional	200	2.58	8.28
Coloressence Mesmerising Lip Colour	175	2.96	9.59
7 Heaven's Super Matte Lipstick	120	2.68	9.28
Tian Nuo	90	4.97	9.22
Kiss Beauty Lip stick	50	0.46	BQL
ADS Professional Lipstick	50	0.26	BQL
T.Y.A. Herbal Lip	30	0.15	0.18
Passion	20	BQL	BQL



BQL - Below Quantification Level (what cannot be measured)

KAJAL



The test results for Kajal were equally disturbing. Eyes are one of the most delicate and sensitive organs of the body and protecting them from harmful chemicals is vital. Two brands of Kajal had alarmingly high levels of Lead. *Rashmi Herbal Kajal*, an inexpensive brand costing Rs. 20, had 48.91mg/kg, more than double the maximum limit of 20 ppm set by BIS. Another cheap brand, costing Rs. 12, *Niki Kajal* had high Lead content of 15.14mg/kg. (*See table for detailed results*)

^{*}BIS limit for Lead is maximum 20 mg/kg

^{**}BIS limit for Arsenic is maximum 2 mg/kg

High Lead levels in Kajal brands

Brand/Manufacturer	Price (Rs.)	Lead (mg/kg)*
L'Oreal Paris Kajal Magique	245	0.66
Lakme Kajal Black Eyeconic	200	0.62
Maybelline New York The Colossal Kajal	199	BQL
Himalaya Herbals Kajal Extra Smooth	45	0.16
Khojati Mumtaz Delux Kajal	40	0.26
Blue Heaven Indian Kajal	20	0.77
Rashmi Herbal Kajal	20	48.91
ADS Kajal Pencil	20	1.46
Jai Kajal 13	0.82	
Ambar Kajal	13	1.41
Niki Kajal	12	15.14
Clarion Long wearing matt Kajal/eye liner	10	1.89



BQL – Below Quantification Level (what cannot be measured), QL – Quantification Level *BIS limit for Lead max 20 ppm



NAIL POLISH

The 12 brands we tested were *Lakme, Revlon, Colorbar, Maybelline, LookEver, B.O., Surbhi, W7, Vove, WOW, Dozy* and *Ebony.* They ranged in price from Rs. 20 to Rs. 175. Lead and Arsenic were found to be within permissible limits in all the brands.

HAIR COLOUR

The 12 brands we tested were *Revlon, Garnier, L'Oreal, Streax, Godrej, Color Mate, Livon, Indica, Bigen, Panchvati, Berina* and *Neha.* They ranged in price from Rs. 20 to Rs. 299. Lead was found to be within permissible limits in all the brands.

Inadequate labelling

Cosmetics are regulated under the Drugs and Cosmetics Act, 1940 and Drugs and Cosmetics Rules, 1945 which exempt cosmetic packs of less than 60ml for liquids and 30g for solids and semisolids from mentioning net contents on the label.

According to Rule 148 (3) of the Drugs and Cosmetics Act and Rules where a hazard exists, a separate statement of names and quantities of ingredients that are hazardous should be there on the label with a cautionary message. Only two manufactures of Hair Colour, *Livon Conditioning Cream Colour* and *Streax Tender Loving Colour* mentioned potentially hazardous ingredients under the title 'Declaration'.

Certain brands of Lipstick, Kajal, and Nail Polish did not meet the labelling requirements as per law. They did not mention important information such as:

- i. use before/expiry date
- ii. batch no.
- iii. manufacturing/marketing address
- iv. manufacturing licence no.
- v. directions for safe use

Use Before/Expiry dates are vital in the case of cosmetics (as in the case of food and drugs). Beyond these dates the product may deteriorate and cause adverse health issues. All the Hair Colour brands mentioned the Expiry/Use Before Date on the labels. The labels of the following brands of Lipstick, Kajal and Nail Polish did not mention that vital information:

No Use Before/Expiry Date

Category/Brand

Lipstick

T.Y.A Herbal Lip Kiss Beauty Lip stick

ADS Professional Lipstick

Passion

Kajal

ADS Kajal Pencil

Niki Kajal

Ambar Kajal

Clarion Long wearing matt Kajal/eye liner

Nail Polish

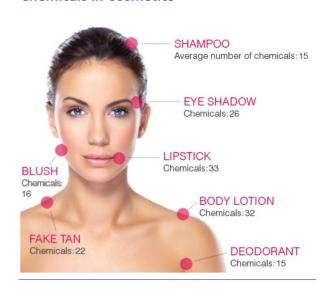
Surbhi Nail Enamel

Ebony Color Craze Nail Enamel

Vove Power Lasting Nail Colour WOW Ultrashine Nail Enamel

Dozy

Chemicals in Cosmetics



Manufacturers' response

None of the five failing brands of Lipstick and Kajal responded to our queries till the time of going to press.

Lipstick: The low-cost brands had very little information on the labels and some companies could not be contacted. The expensive brands were free of heavy metals.

Revion said: "The list of ingredients and other details are not required to be printed on the label of this product as per Drugs & Cosmetics Rules since the product is less than 10g and it falls under the exempted category".

Kajal: There was no response from most of the low-cost brands. *L'Orea*l and *Maybelline* said they were exempted because of small pack size.

Hair Colour: L'Oreal, Garnier and Revlon did not think it necessary to list hazardous ingredients on the label. While the first two said there was no hazard associated with the product, the third was not even aware of the requirement.

Streax said: "...your observation regarding labelling provisions shall be looked into for omissions, if any, in the interests of the consumer."

On phone, *Panchvati* said mentioning hazards would drive away customers.

Nail Polish: *Revlon* said directions for use and warning were already given in the back panel of the bottle. The list of ingredients was not required to be printed due to small pack size.

Action taken by CERC

CERC made a representation to the Drugs Controller General of India, Ministry of Consumer Affairs (MoCA) and BIS on the matter. MoCA responded saying that national standards are being amended to conform to WHO/global standards and would be enforced soon.

BIS responded that no action was presently called for with respect to heavy metals in Lipstick and Kajal as the limits had been recently reviewed by the Technical Committee under the chairmanship of the DCGI. CERC suggestions pertaining to sale of cosmetics, testing and display of harmful contents would be dealt with by the DCGI. The suggestion with respect to exemptions on the marking clause would be put up before the Cosmetics Sectional Committee of BIS.

Areas of action

The Regulatory Authorities should:

- Make it mandatory for manufacturers to list heavy metals on the labels
- Make it mandatory for cosmetics of all pack sizes to mention net contents and their quantities. Give a separate leaflet if needed
- Strictly enforce the rule that requires hazardous substances to be listed separately
- Remove unsafe cosmetics from the market and impose stiff penalties. Stop import of cheap unsafe brands
- Constantly update mandatory standards
- Periodically sample products and get them tested in independent laboratories

Survey results

A survey of consumers and consumer organisations was conducted to understand their concerns regarding safety of cosmetics. Major findings were:

• The majority of respondents believed that only

- reputed brands can guarantee quality.
- Only 25% of those surveyed had knowledge about the safety provisions under the law.
- Around 15% of the respondents had problems with the cosmetics they purchase.
- The side effects they faced are hair loss, irritation, allergic rashes, headache and asthma.

What consumers can do

Cosmetics containing poisonous substances like Arsenic and Lead are in the market. In the absence of labelling information how do consumers know they are buying safe products? To protect themselves, we suggest that consumers should:

- i. Opt for reputed brands where they can check with the store or company about ingredients
- ii. Not go for cheap brands found to have inadequate labelling information
- iii. Stop using any cosmetic that causes irritation to the eyes or skin
- iv. Limit use of cosmetics to special occasions

