



NICNAS Existing Chemicals Information Sheet

Lead in Cosmetics

November 2008

The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) is aware of ongoing public concerns about the presence of lead in cosmetics, particularly lipsticks.

Do cosmetics in Australia contain lead?

To determine whether cosmetics in Australia contain lead, NICNAS undertook a mandatory call-for-information from industry in May 2007.

The information required from Australian industry included the names of cosmetic products/mixtures and the concentration of lead in those products, specific function of the lead compound in the cosmetic product and the quantities imported or manufactured.

While limited information was received, the responses indicated that neither lead nor lead compounds are intentionally used as cosmetic ingredients in Australia apart from known uses as hair colourants.

However, it is recognised that there is a potential for certain raw materials that are used in cosmetics to be contaminated with small amounts of lead, and industry indicates this is managed as part of the specification process. As per best practice industry should continue to manage this potential contamination via the quality control process.

Health effects of lead

NICNAS reviewed the toxicity of lead as part of a 2007 assessment report on lead compounds in industrial surface coatings and inks.

Inorganic lead compounds are used in cosmetics such as hair dyes.

The toxicity of lead compounds is mostly related to the amount of lead in the compounds. Lead compounds have well-recognised, diverse effects on body systems including the nervous, gastrointestinal, reproductive and circulatory systems.

The World Health Organisation's International Agency for Research on Cancer (IARC) classifies inorganic lead compounds as probably carcinogenic to humans (Group 2A, IARC classification). This is because there is limited evidence in humans and sufficient evidence in experimental animals for the carcinogenicity of inorganic lead compounds.

Regulatory activities

In Australia, all new chemicals in cosmetics must be notified to NICNAS and assessed prior to their use in consumer products. Where there is a concern on the safety of an existing chemical in a cosmetic there is a mechanism to review these on a priority basis.

NICNAS will work with industry to ascertain the potential for certain raw materials to be contaminated with lead and to determine the appropriate regulatory action.

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Current cosmetics regulation in Australia

- Under Australian State and Territory poisons legislation, product labels of cosmetics (that may contain lead compounds) are required to contain:
 - specific signal words (indicating the danger posed)
 - safety directions
 - warning statements, and
 - first aid instructions.

This is designed to ensure that users are provided with sufficient information to be able to use products safely.

- Under Poison Scheduling, it is mandatory for all labels of cosmetic products containing lead at a concentration greater than 100 mg/kg (ie. 0.01% w/w¹) to carry the warning 'Poison'.
- Under the *Trade Practices (Consumer Product Information Standards) (Cosmetics) Regulations (1991)* cosmetic product ingredients must be listed on the container or the product itself, in descending order calculated by either mass or volume.

This enables consumers to avoid products containing chemicals about which they have concerns.

- Under the *Customs (Prohibited Imports) Regulations 1956*, the importation of cosmetics products containing more than 250 mg/kg (0.025% w/w¹) of lead or lead compounds (calculated as lead), except products containing more than 250 mg/kg of lead acetate designed for use in hair treatments, is prohibited unless written permission is granted by the Minister.

¹ weight to weight