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Proposed Amendment to Title 27, Section 257071 – Hexavalent Chromium

Dear Ms. Kammerer,

Plumbing Manufacturers International (PMI) appreciates the opportunity to provide comments on the California Office of Environmental Health and Hazard Assessment's (OEHHA) proposal to amend Title 27, California Code of Regulations, Section 257071, to remove the reference to hexavalent chromium in Section 25707(b)(4) as posing no significant risk when ingested.

PMI appreciates OEHHA's efforts to identify issues associated with the impact of materials used in plumbing products. PMI, an international, U.S.-based trade association of plumbing product manufacturers, has made the promotion of safety and water efficiency a top priority and has included it in its mission statement. PMI's members are the industry leaders in producing innovative, safe and water efficient plumbing technologies relied upon to meet indoor water conservation goals.

PMI believes credible, accurate, and peer-reviewed science must form the foundation of regulatory decisions. As a major input into the national efforts to address hexavalent chromium, there is a pressing need to fix the United States Environmental Protection Agency's (USEPA) Integrated Risk Information System, or IRIS. IRIS is one of the most important programs USEPA uses to assess chemical safety. Over the years, the agency's chemical risk assessment has been repeatedly criticized for failing to consistently meet high standards of scientific inquiry, transparency and quality.

PMI is concerned about the potential impact of the USEPA Toxicological Review of hexavalent chromium under its IRIS program on the plumbing manufacturing sector. If USEPA were to complete this review before the end of 2011, it would be incomplete because a major industry-sponsored study was started several years ago to study hexavalent chromium in drinking water at concentrations found naturally in drinking water. After the study was started, USEPA significantly accelerated its timetable for the hexavalent chromium IRIS assessment. The agency has not committed to ensuring this new science will be taken into consideration. The final draft IRIS Risk Assessment for hex chrome could be released as early as December 2011. Without full review of the scientific evidence, it could lead to improper regulatory decisions which will have a detrimental impact on our industry. We believe this information will also be critical for stateside decisions, such as the current regulatory assessment in California.

IRIS assessments typically serve as the basis for other regulatory limits, such as drinking water standards. Every plumbing manufacturer supports safe drinking water. However, if California were to set a new

drinking water standard for hexavalent chromium without fully understanding and accepting all relevant scientific findings on which they base their decision, the beneficial use of hexavalent chromium as used in the plumbing manufacturing process could be significantly restricted in the future.

Many of the plumbing fixture fittings made by PMI members have a standard polished chrome-plated decorative surface. Polished chrome has been used for a decorative surface finish treatment for over one hundred years. Originally, it was used as a means of preventing tarnishing and the eventual development of the blue-green oxidation patina that one often sees on brass or copper alloy surfaces. Chrome-plated surfaces are metallic chrome, not hexavalent chrome, and have provided durable chemical and abrasion resistant surfaces that are easy to keep clean on such products as faucets, showerheads, and tub spouts.

U.S. plumbing codes require that all plumbing products intended to dispense water for human consumption must be certified as meeting the requirements of NSF International Standard 61 (Health Effects – Indirect Water Additives). NSF International is an independent, not-for-profit organization that provides standards development.

- Under NSF 61, the maximum potential exposure to total chrome from a single fixture fitting (faucet) is 10 parts per billion (ppb) or 1/10th of the USEPA total chrome level. NSF 61 also sets a maximum level for hexavalent chromium at 2 parts per billion.
- A hexavalent chrome health effects standard was established by the independent Health Advisory Board (HAB) consisting of well recognized toxicologists and public health professionals; including USEPA toxicologist Ed Ohanian, who is also part of the working group to establish the health effects based Primary Drinking Water Standard at USEPA.
- USEPA has a national drinking water standard for total chromium of 100 ppb. Due to the technical and practical difficulties associated with distinguishing among hexavalent chromium, trivalent chromium and other chromium compounds, drinking water limits have not yet been set for hexavalent chromium.

In 2009, ToxStrategies initiated a multi-million dollar research program to develop new data that USEPA could use to assess the risk that hexavalent chromium poses from low-level, environmentally relevant exposure through drinking water. The low-dose studies will enable scientists to determine the mechanism of action that makes hexavalent chromium toxic when swallowed, and whether there is a threshold below which this toxicity does not occur. The research represents the work done by a dozen individual laboratories, replicates and expands on the 2008 studies conducted by the National Toxicology Program.

This summer, the majority of USEPA's independent peer review group expressed significant concerns about the scientific quality of EPA's draft assessment, citing knowledge gaps, including those that could be filled by the soon-to-be released ToxStrategies research.

The original published schedule for the completion of its draft Toxicological Review for hexavalent chromium was fall 2012. This schedule would have easily enabled incorporation of the results of the ongoing research studies into its IRIS assessment for hexavalent chromium. Nonetheless, in 2009, USEPA accelerated the process.