



February 15, 2011

Via E-Mail

Ms. Fran Kammerer
Office of Environmental Health Hazard Assessment
P.O. Box 4010
Sacramento, CA 95812-4010

Re: Comments on the Proposed Regulations Specifying Relevant Data to Be Included in the Toxics Information Clearinghouse

Dear Ms. Kammerer:

The North American Metals Council (NAMC)¹ is pleased to submit these comments on the December 17, 2010, proposed regulations that would specify hazard traits, environmental and toxicological endpoints, and other relevant data to be included in the Toxics Information Clearinghouse (Clearinghouse). NAMC understands that the Clearinghouse is intended to provide basic scientific information that will be available to agencies, the public, and the scientific community to evaluate chemicals in consumer products. Much of the hazard trait information provided, however, is geared toward organic chemicals and is not applicable to metals and metal substances. NAMC members urge the Office of Environmental Health Hazard Assessment (OEHHA) to recognize that metals must be assessed differently and to provide specific reference materials on how such assessments should be conducted.

Specifically, NAMC recommends that the following text be added in Article 1 General; § 69401, Purpose and Applicability:

Metals and metal substances are different from organic chemicals. The potential hazard of a metal depends on the specific metal, the form of the metal and/or metal compound, and the organism's ability to regulate and/or store the metal. Certain traits used to screen, assess, or prioritize organic compounds, such as bioaccumulation and persistence, are not appropriate for assessing

¹ NAMC is an unincorporated not-for-profit group of metals-producing and metals-using associations and companies that focuses on science and policy issues that affect metals in a generic way.



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the hazard of metals. For more information on how to assess metals and metal substances, please refer to the U.S. Environmental Protection Agency's (EPA) *Framework for Metals Risk Assessment*.²

NAMC also recommends that text be added to the sections on bioaccumulation and persistence as follows:

§ 69405.2 Bioaccumulation

(a) The bioaccumulation hazard trait is defined as the accumulation of a chemical substance in the tissue of organisms through any route, including respiration, ingestion, or direct contact with contaminated water, sediment, and pore water in the sediment, or through biomagnification up the food chain.

(b) Evidence for the bioaccumulation hazard trait includes but is not limited to: studies which show bioaccumulation in animal or human tissues, inhibition of an efflux transporter, or structural similarity to other bioaccumulative chemicals; or, for organic chemicals a bioaccumulation factor greater than 1000, or a log octanol water partition coefficient greater than or equal to 5.

Add new text:

*Unlike organic substances, the bioaccumulation potential of metals cannot be estimated using octanol–water partition coefficients (K_{ow}) or bioconcentration and bioaccumulation factors (BCFs and BAFs). For metals, BCFs and BAFs are inversely related to exposure concentration and are not reliable predictors of chronic toxicity, food chain accumulation, or hazard. The U.S. EPA's *Framework for Metals Risk Assessment* provides specific guidance on how to assess bioaccumulation potential for metals and metal substances.*

§ 69405.3 Environmental Persistence

(a) The environmental persistence hazard trait is defined as the propensity for a chemical substance to remain in the environment

² EPA 2007. *Framework for Metals Risk Assessment*, EPA 120/R-07/001, Office of the Science Advisor Risk Assessment Forum, U.S. EPA, Washington, DC, available at <http://www.epa.gov/raf/metalsframework/pdfs/metals-risk-assessment-final.pdf>.



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for a long time period subsequent to its release, by resisting chemical and biological degradation.

(b) Evidence for environmental persistence includes half-lives in marine, fresh or estuary water of greater than 40 to 60 days, in marine sediment of greater than 2 months, in ambient air of greater than 2 days, or in soil of greater than 2 months; structural similarity to other persistent chemicals.

Add new text:

Persistence is problematic as a hazard trait for metals because -- while all metals and other elements on the periodic table are conserved³ and, hence, persistent -- the form and availability of the metal can change (thereby affecting its potential toxicity) depending on the environmental conditions. The nature of these changes and the environmental conditions under which they occur are different for each metal element and must be considered on a metal-by-metal basis.

* * * * *

Thank you for this opportunity to comment on the draft regulation. NAMC members would be happy to meet with OEHHA staff to address any questions or discuss the scientific issues in more detail.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen M. Roberts", written in a cursive style.

Kathleen M. Roberts
NAMC Executive Director

³ Law of Conservation of Mass is a relation stating that in a chemical reaction, the mass of the products equals the mass of the reactants. See <http://chemistry.about.com/od/chemistryglossary/a/conservmassdef.htm>.