

Children's Safe Products Act
Rationale for Chemicals listed under Reporting Requirements
Submitted April 18, 2011

Introduction

The criteria and process for selecting chemicals for the list of Chemicals of High Concern to Children (CHCC) are described in the CSPA law (Chapter 70.240 RCW) and the Phase 1 and Phase 2 prioritization procedures on the Department of Ecology's web site (<http://www.ecy.wa.gov/programs/swfa/rules/ruleChildPilotPhase.html>).

Briefly, the CSPA law defines criteria for including chemicals on the CSPA reporting list. As written, these criteria are very broad, with potentially thousands of chemicals meeting the definition of "high priority chemicals that are of high concern for children" (i.e., a combination of the criteria in 70.240.010(6) RCW and 70.240.030(1) RCW). Phase 2 was used to narrow the list to a number consistent with the Governor's direction. The Department of Health (DOH) consulted with Ecology during the development of the list. Ecology determined what sources of information were considered authoritative. The agencies consulted with University of Washington Pediatric Environmental Health Specialty Unit (PEHSU) to determine what types of information about toxicity and exposure would be evaluated and what specific criteria would be used to select the chemicals for the reporting list. Ecology in consultation with University of Washington Pediatric Environmental Health Specialty Unit (PEHSU) developed scoring sheets to help prioritize chemicals for inclusion on the list.

As part of the Phase 3 process, DOH was asked by Ecology to review the draft CSPA reporting list to ensure that all chemicals proposed for the final list met the criteria of the CSPA law as well as Ecology's Phase 2 selection criteria. With the few exceptions noted in the Phase 3 report, DOH confirmed that most of the chemicals on the draft list did meet the criteria of both the CSPA law and Phase 2. Any that didn't were eliminated. It should be noted that the draft CSPA reporting list contains chemicals with a wide variety of toxicity and exposure profiles. Some chemicals are very potent while others appear to require large doses for any effect. Some chemicals were widely found in children's products while others had limited evidence of exposure potential. We also found that many listed chemicals had other endpoints of concern (e.g. neurotoxicity, respiratory irritation, dermal sensitization) that occurred at lower concentrations than the endpoints prioritized in Phase 2 (i.e., cancer and adverse effects on reproduction, fetal/child development, and the endocrine system).

In this report, DOH provides brief summaries of the toxicity and exposure information for each listed chemical. The summaries do not represent comprehensive reviews of the literature, but are meant to supply sufficient information to show that the chemicals meet the criteria of the law and Ecology's selection process. DOH was not asked to conduct health risk assessments or eliminate chemicals with evidence of toxicity only at high doses. The law did not require, nor did Ecology's ranking criteria include, consideration of dose-response information or evaluation of the amount of exposure likely to

come from children's products when prioritizing chemicals for the list. As such, DOH and Ecology do not assume the chemicals on the CSPA list to be hazards when present in children's products. Some chemicals may not be particularly accessible or may be present in concentrations unlikely to cause harm.

Currently, agencies entrusted with protecting children's health lack adequate information about the use of chemicals in products, making it difficult to evaluate the potential for exposure and, consequently, the potential for harm. The information that can be collected under the CSPA law can help agencies and the public gain a better understanding of what chemicals are in the products they use and help us evaluate whether or not there is a hazard and, if so, what could be done about it.

With regard to carcinogenic chemicals, Ecology in consultation with University of Washington Pediatric Environmental Health Specialty Unit (PEHSU) defined authoritative sources in Phase 2. When we state that a "chemical is classified as a carcinogen by authoritative sources" in the following summaries, we are referring to five entities identified in phase 2: International Agency for Research on Cancer (IARC), the U.S. National Toxicology Program, the U.S. Environmental Protection Agency, the European Commission, Joint Research Center, Institute for Health and Consumer Protection, and the State of California List of Proposition 65 Chemicals. The specific cancer ratings required for inclusion on the CHCC list are described in the Phase 2 report.

With regard to endocrine disruptors, the CSPA allows a chemical to be included if it is known to "disrupt the endocrine system" (70.240.010(6)(c) RCW). For phase 2 Ecology refined this criterion to prioritize Category 1 chemicals on the European Union's list of endocrine disruptors. Research into the endocrine disrupting effects of chemicals is evolving rapidly, and questions have been raised about the use of the European Union list of endocrine disruptors for selecting CHCCs. Therefore DOH collaborated with the University of Washington Pediatric Environmental Health Specialty Unit (PEHSU) to review chemicals included on the CHCC list only for endocrine disruption. A variety of experimental protocols (assays) have been used to identify chemicals that can disrupt the endocrine system. These range from *in vitro* receptor binding assays to multi-generation studies of development and reproduction in mammals. All the chemicals that were included in the CHCC list only because of endocrine disruption have been shown to disrupt the endocrine system based on the results of one or more relevant assay.

Barbara Morrissey, M.S.
Jim White, PhD.
Office of Environmental Health, Safety, and Toxicology
Washington Department of Health