

Product labeling challenges arise when frameworks conflict: human factors considerations illustrated through recent glyphosate developments

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Selected U.S. Glyphosate Developments: 2015-Present



The conflict between EPA and California’s OEHHA regarding allowable Proposition 65 warning language on glyphosate labeling may be approaching a resolution. However, over the course of the last several years, litigation regarding cancer warnings on glyphosate-containing products has been ongoing, and a federal appeals court in May 2021 upheld a judgment against a manufacturer of a glyphosate-containing pesticide for not providing cancer warnings on its product labeling.¹⁸ Warnings decisions in the face of conflicting frameworks and carcinogenicity determinations continue to be a challenging issue. Some human factors considerations that may be helpful to deliberations about when and how to warn are highlighted below.

Human factors and risk communication frameworks

Regulatory frameworks that designate thresholds for communicating information can limit informational load while also reducing the potential for informational “noise” and false alarms.¹⁹ Designated thresholds for communicating information are one means by which the overuse of warnings (e.g., provision of messages related to low-level, low probability, or speculative risks) can be reduced. Potential problems associated with the overuse of warnings identified in the literature include:²⁰

- Reduced attention to warnings, generally
- Reduced attention to individual messages within warnings
- Reduced recall of certain warning messages
- Reduced believability/credibility of warnings
- Reduced ability to differentiate the relative magnitude of risks
- Misplaced reliance on completeness of warnings

In the absence of established thresholds for warning, or in the presence of conflicting guidance, human factors considerations related to information load and the potential for informational noise and false alarms are still relevant, and limiting information about unestablished or low-level-risks can still be beneficial. Considerations may include whether there is consensus or disagreement regarding a stated health effect, whether the presence of a potentially hazardous ingredient constitutes an actual risk, and the regulatory authority of agencies involved.

Proposition 65 warning thresholds: OEHHA notes that they are bound by law to put IARC 2A carcinogens on the Proposition 65 list of substances known to the State of California to cause cancer, but OEHHA regulations do establish a threshold for when products containing these chemicals must bear a warning.^{21, 4} The challenge, however, is that determinations of whether exposure thresholds may be exceeded for a given product may involve professional judgment and OEHHA places the burden of proof on manufacturers. OEHHA has expressed concern about “over-warning” and the “unnecessary proliferation of Proposition 65 warnings,” citing the value of “truthful, accurate information,”²² but industry members subject to these regulations have faulted OEHHA for creating “a system in which any unlabeled product is subject to litigation and financial penalty...forc(ing) companies to use labeling as their only recourse to protect their business.”²³ In the case of Proposition 65, the presence of a threshold does not necessarily counter the potential for confusion and warnings overuse that can arise from these regulations.

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