Possible Listing of Vinyl Acetate Under the Safe Drinking Water and Toxic Enforcement Act of 1986.

Health and Safety Code section 25249.5 et seq. (Proposition 65)

## **SUPPORT**

Acting Director Edwards and Executive Office Members:

Listing vinyl acetate under the Safe Drinking Water and Toxic Enforcement Act of 1986 is long overdue.<sup>1</sup>

Vinyl acetate monomer can cause Irritation of the eyes, nose, throat, skin (including blistering), and cause respiratory and gastrointestinal illnesses<sup>2</sup> while chronic exposure to moderate and high doses can cause damage to the lungs, liver cardiovascular and central nervous system.<sup>3</sup>

Information published (1970<sup>4</sup>) by the Manufacturing Chemists Association states:

"High concentrations may produce anesthetic effects. This is characterized by incoordination, drowsiness and confusion. Central nervous system depression and respiratory depression may occur if exposure is extreme."

Results from animal studies show that exposure to vinyl acetate can result in neoplastic liver nodules, uterine polyps and adenocarcinomas and C-cell adenomas of the thyroid gland.<sup>5</sup> Impacts to the male reproductive system have also been observed.<sup>6</sup>

Designated as an Extremely Hazardous Substance (EHS), by the US EPA,<sup>7</sup> vinyl acetate is a monomer used in the production of a wide range of consumer products, including water based paints, binders, adhesives, food packaging, so-called resilient flooring (i.e. "luxury vinyl flooring"), and plastics, including children's toys. Vinyl acetate monomer is found on the US EPA Chemical Priority Lists for Acute Exposure Guideline Levels (AEGLs) and has a "higher priority" designation due to "considerations of toxicity, volatility, presence on numerous organization chemical lists, and other factors."

<sup>&</sup>lt;sup>1</sup> https://oehha.ca.gov/media/downloads/crnr/090916vinylacetate.pdf

<sup>&</sup>lt;sup>2</sup> https://www.toxicdocs.org/d/O33GGXXoX75Lo1ROMjn7q60w?lightbox=1

<sup>&</sup>lt;sup>3</sup> https://www.sciencedirect.com/topics/chemistry/vinyl-acetate

<sup>&</sup>lt;sup>4</sup> https://www.toxicdocs.org/d/bazGXYEaop9aOgGEvQ4JganRZ?lightbox=1

<sup>&</sup>lt;sup>5</sup> https://www.ncbi.nlm.nih.gov/books/NBK464344/

<sup>&</sup>lt;sup>6</sup> https://www.sciencedirect.com/topics/chemistry/vinyl-acetate

https://www.epa.gov/sites/default/files/2014-11/documents/vinvl\_acetate\_final\_volume\_14\_apr\_2013.pdf

<sup>8</sup> https://patents.justia.com/patent/11834557

<sup>&</sup>lt;sup>9</sup> https://www.epa.gov/aegl/chemical-priority-lists-acute-exposure-guideline-levels-aegls

- IARC 2b (possibly carcinogenic to humans)
- ACGIH A3 (animal carcinogen)
- Mexico A3 (confirmed animal carcinogen)
- OSHA carcinogenic
- European Union, Endocrine Disrupters Candidate Chemical List Group III (endocrine disrupting chemical)<sup>10</sup>
- ECHA- Carc. 2 (Suspected of causing cancer)<sup>11</sup>
  Chronic aquatic toxicity, category 3 (Harmful to aquatic life with long-lasting effects)
  Toxic to arthropods and avian species

While AEGL values claim to represent both the general and vulnerable populations (children; pregnant women; the elderly; those living in environmental and social justice communities), the potential for impacts on children, populations with health disparities and reduced access to care cannot be understated.

Children are not small adults. They are particularly vulnerable to chemical exposure due to developmental windows. Intake of toxic chemicals by children from air, water and soil are proportionately greater than adults due to their size, more tendency to play on floors/ground), behaviors (i.e. hand to mouth; , diet and potential for greater variety of chemical exposures due to a variety of settings they are in throughout the day. These factors result in more chemical exposures per kilogram of body weight than adults. Notably, no one is ever exposed to a single chemical. Additionally, chemicals deemed non-toxic can interact synergistically to cause disease and cancers.

Consumers generally believe that products available for purchase have been tested for safety. While this is rarely the case, chemicals of concern that are listed on the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65 List) have been shown to have beneficial impacts not only in California, but nationwide. Increased consumer awareness, together with legislative and regulatory action, spurs development of non-toxic product formulations and leads to decreased exposure to toxic chemicals.

I urge you to afford Californians protection from the toxic effects of vinyl acetate and it's polymerization products by adding this chemical to the Proposition 65 List.

Respectfully submitted,

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<sup>&</sup>lt;sup>10</sup>https://www.fishersci.com/store/msds?partNumber=AC140840010&countryCode=US&language=en

<sup>&</sup>lt;sup>11</sup> https://echa.europa.eu/registration-dossier/-/registered-dossier/15530/7/2/1

<sup>12</sup> https://pmc.ncbi.nlm.nih.gov/articles/PMC6982419/

<sup>&</sup>lt;sup>13</sup> https://doi.org/10.1289/EHP13956