

June 20, 2024

PUBLIC COMMENTS ON THE CALIFORNIA OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT'S PROPOSED TO ADOPT A PROPOSITION 65 NO SIGNIFICANT RISK LEVEL (NSRL) FOR TITANIUM DIOXIDE (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE)

Submitted electronically at <https://oehha.ca.gov/comments>

Mother's Oversight Network for Actionable Response to Contaminant Harm, LLC ("MONARCH") hereby submits the following comments to the California Office of Environmental Health Hazard Assessment ("OEHHA") in support of the adoption of a Proposition 65 No Significant Risk Level (NSRL) for titanium dioxide (airborne, unbound particles of respirable size). We appreciate the opportunity to provide input on this important matter.

MONARCH is a California company organized to promote awareness of exposures to toxic chemicals. MONARCH recently served twenty-five Notices of Violation ("NOV") to various companies alleging exposure to respirable, airborne, and unbound particles of titanium dioxide ("TiO₂" or the "Listed Chemical").¹ These NOV's were served after extensive experimentation and consultation with several experts in the field of aerosol sampling and particle exposure assessment.

To start, MONARCH believes a larger, global context must inform the State of California's public health policies regarding titanium dioxide. As the 5th largest economy in the world,² California must play a role in setting public health trends regarding consumer safety. Titanium dioxide is restricted as a cosmetic ingredient in several countries,³ and by large governing bodies such as the European Parliament and the Council of the European Union⁴ due to its carcinogenic nature. Therefore, limiting the amount of TiO₂ that is safe for consumers to inhale will put California squarely among international leaders regarding public health and safety.

Titanium dioxide was listed by OEHHA in 2011 based on data from the International Agency for Research on Cancer ("IARC")⁵ and National Institute for Occupational Safety and Health ("NIOSH").⁶ Unfortunately, the elements of exposure to titanium dioxide as established in 2011 are far too vague, thus inviting ongoing confusion and debate. This does not meet the goal of

¹ https://oag.ca.gov/prop65/60-day-notice-search-results?combine=&combine_1=monarch&field_prop65_defendant_value=&date_filter%5Bmin%5D%5Bdate%5D=&date_filter%5Bmax%5D%5Bdate%5D=&field_prop65_product_value=&field_prop65_chemical_tid%5B%5D=806&sort_by=field_prop65_id_value&items_per_page=20

² <https://www.gov.ca.gov/2024/04/19/californias-strong-economic-week/#:~:text=California%20remains%20the%205th%20largest,Analysis.%20California's%20per%20capita%20GDP>

³ https://health.ec.europa.eu/publications/scientific-advice-titanium-dioxide-tio2-casec-numbers-13463-67-7236-675-5-1317-70-0215-280-1-1317-80_en#:~:text=According%20to%20the%20Cosmetics%20Regulation,end%20user's%20lungs%20by%20inhalation.

⁴ https://health.ec.europa.eu/document/download/47f167ec-b5db-4ec9-9d12-3d807bf3e526_en

⁵ <https://publications.iarc.fr/111>

⁶ <https://www.cdc.gov/niosh/docs/2011-160/pdfs/2011-160.pdf>

protecting public health. While listing TiO₂ was better than not, the current listing and guidelines just muddy the waters.

The lack of clarity around titanium dioxide exposure stems in part from disparate scientific consensus on the definition of the words “airborne,” “unbound,” and “respirable,” which are all included in OEHHA’s current guidelines on the chemical. In its own investigation into the Listed Chemical, MONARCH commissioned testing from a leading aerosol physicist. The analysis shows that aerosol sprays which contain titanium dioxide are **more likely than not** to expose consumers to particles that fit all three descriptors set by OEHHA (i.e. “airborne,” “unbound,” and “respirable”). Based on the data collected and the consultation with said physicist, MONARCH concludes that establishing a NSRL will allow consumer product manufacturers to take a more responsible approach to formulating their products.

In full disclosure, MONARCH has a vested interest in the adoption of a NSRL for titanium dioxide, because a bright line exposure value for inhalation of TiO₂ would provide benefit to both a) Private Prop 65 enforcers (like MONARCH), and b) manufacturers of products that potentially expose consumers to the Listed Chemical via inhalation.

Juxtaposed to the current unclear guidelines, OEHHA’s recently proposed NSRL appears to account for all sizes of respirable particles. From a public health perspective, MONARCH appreciates this, since the finer the particle, the greater the damage to respiratory organs⁷.

For the foregoing reasons, MONARCH supports the establishment of a NSRL for Titanium Dioxide according to the best and most rigorous scientific standards currently available with regard to potential harm from exposure to the Listed Chemical.

Sincerely,


Sayward Halling (Jun 21, 2024 07:13 PDT)

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⁷ <https://doi.org/10.1289/ehp.845597>.