

Safer Consumer Products Program

Public Workshop on DTSC's Proposal to List Nail Products Containing Triphenyl Phosphate (TPhP) as a Priority Product

Chinh Sheow, Public Participation Specialist
September 10, 2024



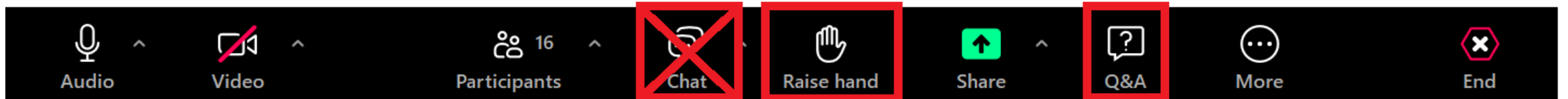
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Workshop Instructions

- If you have a question or comment:
 - Use Q&A feature (bottom of screen)
 - Use "Raise hand" function or press *9 and press *6 to unmute by phone
 - Do not use chat function
- We will respond during Q&A session



- We will take comments during the Public Comment portion of this workshop



Agenda

- Opening Remarks
- Safer Consumer Products (SCP) Framework
- Overview of Product-Chemical Profile for Nail Products Containing Triphenyl Phosphate
- Q&A
- 5-Minute Break
- Public Comment Period
- Closing Remarks



Written Public Comment Period Open

- Link to Profile:
 - [Product-Chemical Profile for Nail Products Containing Triphenyl Phosphate](#)
- Link to submit comments via CalSAFER: <https://calsafer.dtsc.ca.gov/>
- Comment period closes at 11:59pm on September 24, 2024





Opening Remarks

Andre Algazi

Branch Manager

Chemical Product Evaluation Branch

Safer Consumer Products Program



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Safer Consumer Products (SCP) Framework

Nathalie Pham, PhD

Senior Toxicologist

Toxicology and Exposure Unit

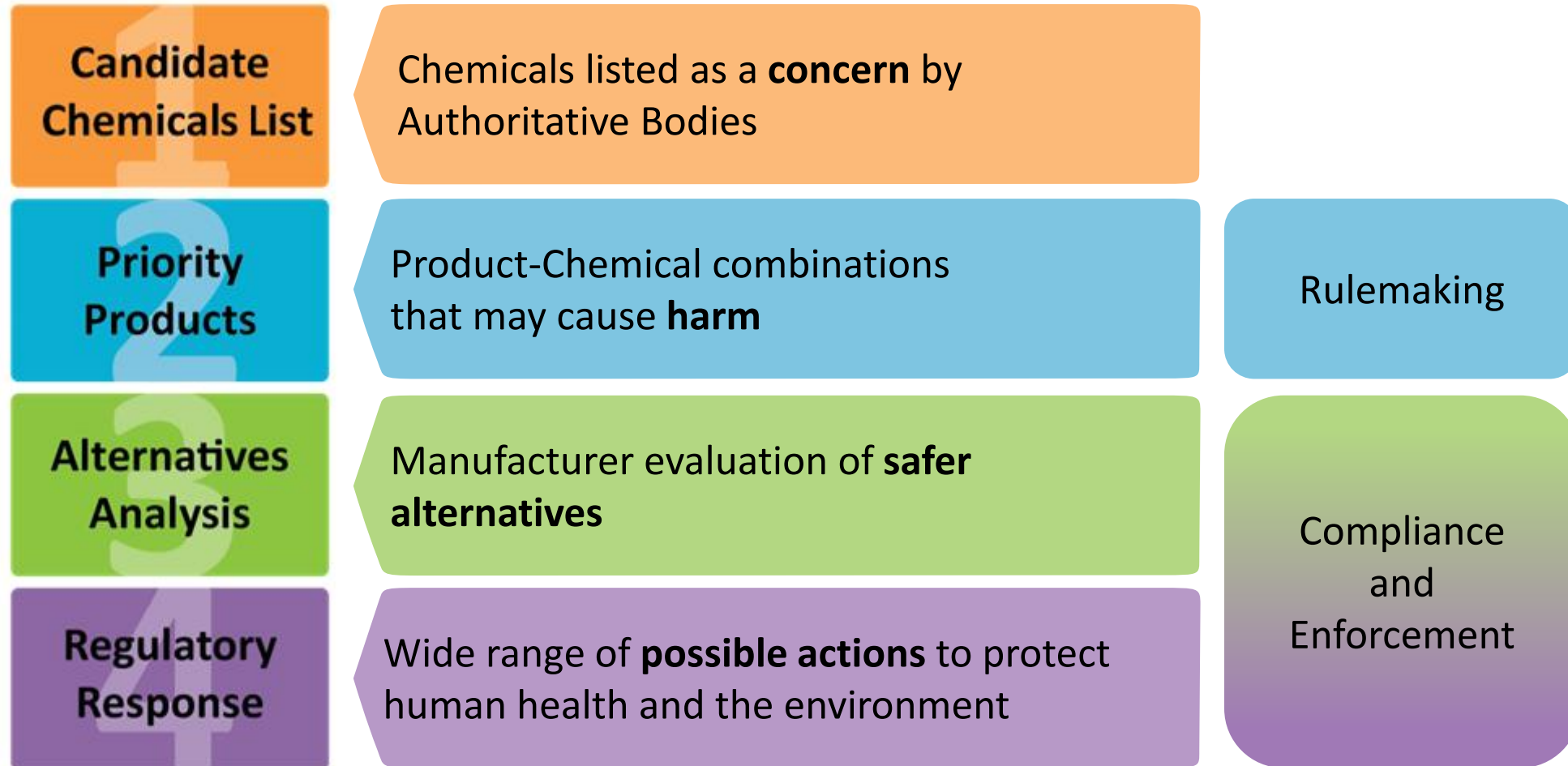


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Safer Consumer Products (SCP) Framework



A Priority Product Must Meet These Criteria

1
Candidate
Chemicals List

2
Priority
Products

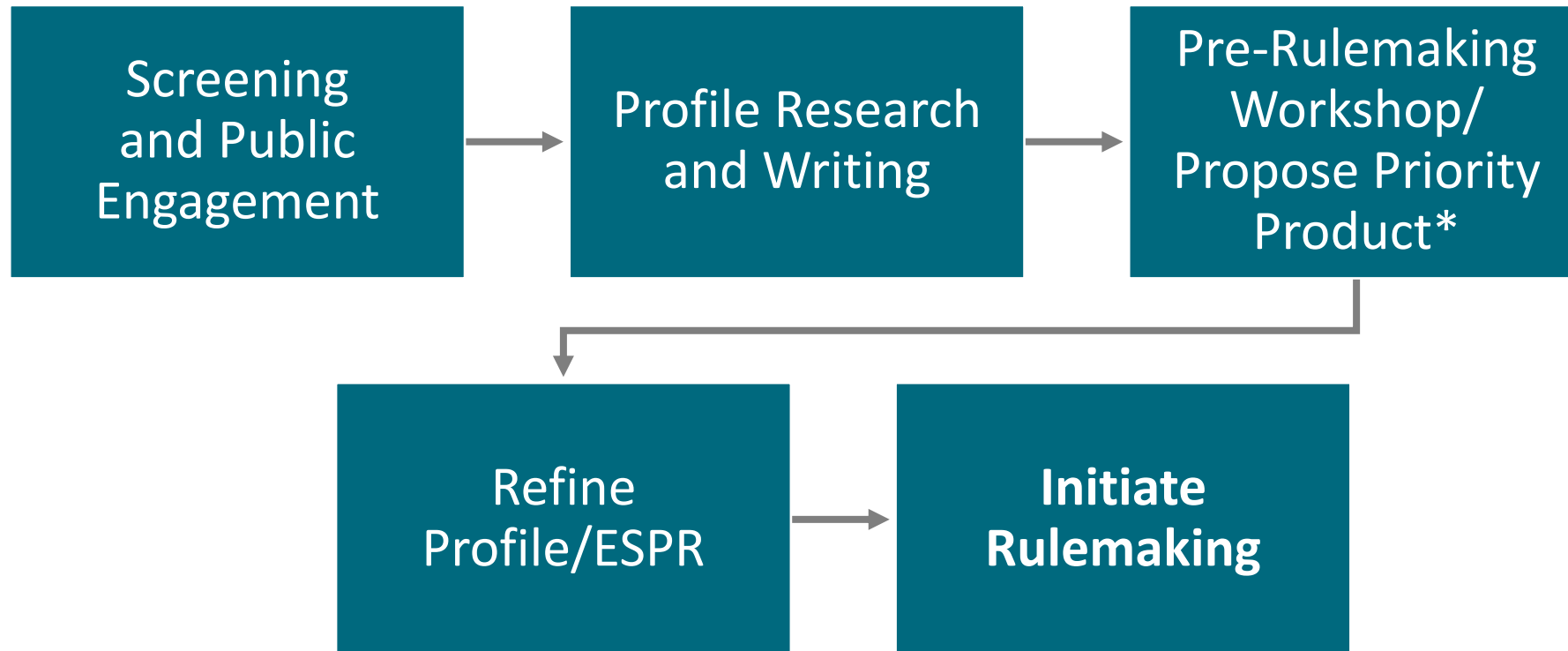
3
Alternatives
Analysis

4
Regulatory
Response

- There are potential **exposures** to a Candidate Chemical in the product
- One or more exposures have the potential to contribute to or cause **significant or widespread adverse impacts**



Product-Chemical Prioritization Process (Priority Products)

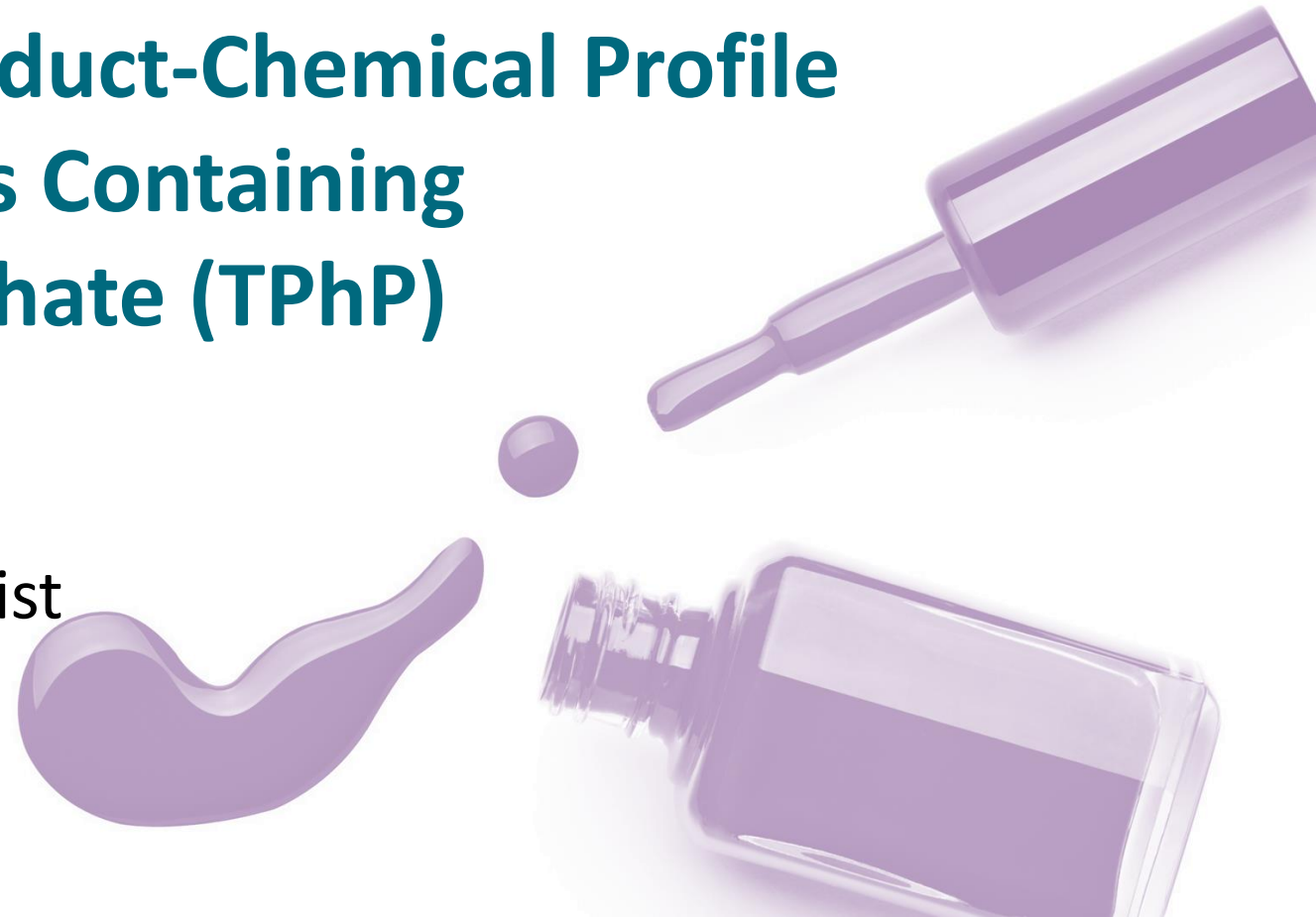




Overview of Product-Chemical Profile for Nail Products Containing Triphenyl Phosphate (TPhP)

Tiglath Moradkhan

Environmental Scientist



Presentation Overview

- Scope of product
- Scope of Candidate Chemical: TPhP
- Hazard traits (HTs)
- Exposure potential
- Potential alternatives
- DTSC's proposed Alternatives Analysis Threshold (AAT) for TPhP in nail products



Scope of Product: Nail Coatings

- Nail polish
- Lacquer
- Base coat
- Top coat
- Gel polish
- Hardener
- Hard gel
- Airbrush nail art paint



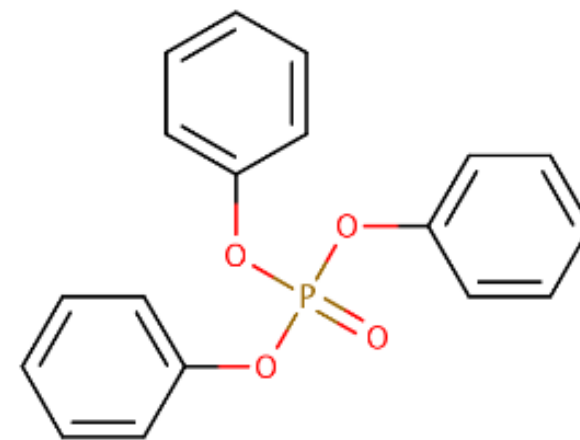
Scope of Product: Nail or Cuticle Treatments

- Intended to treat nail or cuticle region of nails
- Designed for nail care purposes
- Designed to prep nail surfaces to apply other nail products



Scope of Candidate Chemical: TPhP

- Listed as a Priority Chemical by California Environmental Contaminant Biomonitoring Program (Biomonitoring California)
- Added as a plasticizer in nail coatings and nail treatments
- May be present as a contaminant



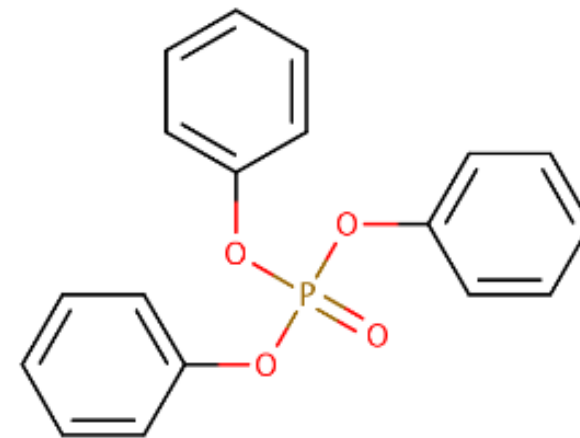
Toxicological & Exposure Potential Hazard Traits of TPhP

Strength of evidence	Hazard trait	Examples of hazard endpoints
Strong	Hepatotoxicity	Increased liver weight
Suggestive	Endocrine toxicity	Altered thyroid hormone levels
	Developmental toxicity	Increased body weight and reduced litter size
	Neurotoxicity	Decreased neurotransmitter activities
	Reproductive toxicity	Delayed puberty
	Lactational and transplacental transfer	Detected TPhP in breastmilk and in human cord blood



Scope of Candidate Chemical: TPhP

- Identified as an endocrine disruptor of concern to the environment by the European Chemicals Agency (ECHA)
- United States Environmental Protection Agency (U.S. EPA) currently completing a risk evaluation under Toxic Substances Control Act (TSCA)



Exposure to Nail Products

- Nail products and salon services are popular:
 - **\$8.5 billion** spent on professional nail services in the U.S. in 2016
 - 2019 nail product sales **between \$718.6 million and \$2.3 billion**
 - In California, ~6,100 nail salons, ~128,000 licensed manicurists, and ~302,000 licensed cosmetologists



Exposure to TPhP from Nail Products

- Detected in many nail products, e.g., nail polishes, hardeners, enamels, and base coats
- Listed as an ingredient in 802 formulated nail polishes in the U.S.
- Reported as an ingredient and contaminant by manufacturers in [DTSC's 2020 information call-in](#)



Exposure to TPhP from Nail Products

- Key Exposure Routes
 - Skin contact (dermal)
 - Breathing in fumes (inhalation)
 - Transplacental transfer (pregnant workers or clients)
- Environmental Factors
 - Presence of TPhP in nail salon air
 - Inadequate ventilation and small workspaces increase exposure
- Application of nail products with TPhP leads to detection of the metabolite diphenyl phosphate (DPhP) in urine samples



Populations Exposed to TPhP from Nail Products

- Nail salon workers
 - Biomonitoring data indicates workplace exposure
 - Work extended hours
 - May be of childbearing age
 - Up to 80% are of Vietnamese descent



Populations Exposed to TPhP from Nail Products (cont.)

- Nail product consumers
 - Nail salon customers
 - Similar exposures as nail salon workers
 - At-home users
 - May include children
 - Parental use of nail products influence children's use of nail products
 - Parents apply nail products on their children



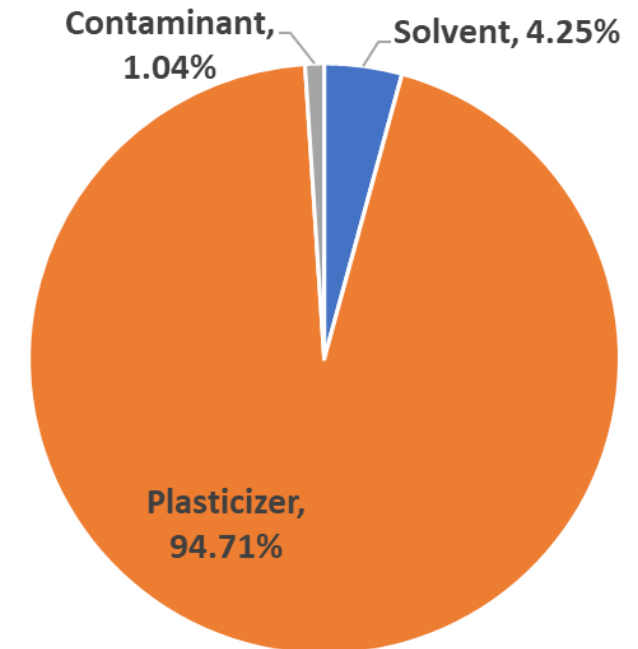
Alternatives to TPhP in Nail Products

- Alternatives exist on the market
 - Examples
 - Sucrose benzoate
 - Ethyl tosylamide
 - Trimethylpentanediyl dibenzoate
 - Acetyl tributyl citrate



DTSC's Proposed Alternatives Analysis Threshold (AAT) for TPhP in Nail Products

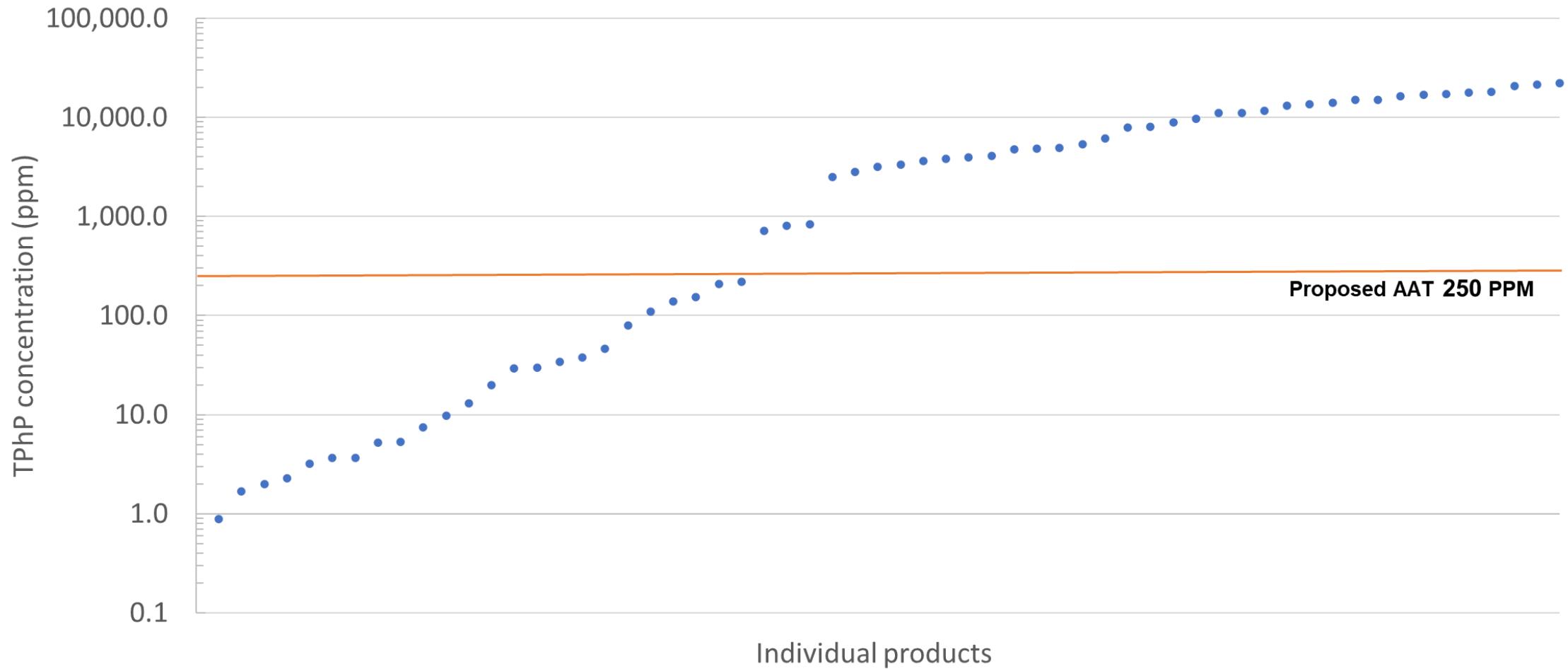
- DTSC is required to set an AAT if a chemical in a product is a contaminant
- Manufacturers of nail products containing TPhP below AAT exempt from Alternative Analysis requirements
- AAT is not necessarily a health-based or risk-based determination
- DTSC proposes to set an AAT of 250 parts per million (ppm)



Source: DTSC's information call-in on nail products data reporting functional use of TPhP in nail products



TPhP Detections in Nail Products



Summary

- TPhP detected in nail coatings and in nail or cuticle treatments
- Populations of concern
 - Nail salon workers, pregnant women, and children
- Dermal contact and inhalation are considered contributing exposure routes
- TPhP has several toxicological and exposure hazard traits
- TPhP may be present as a contaminant in nail products
 - DTSC proposes to set an AAT of 250 ppm



Acknowledgments

- Efrem Neuwirth
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- Lynn Nakayama Wong
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- Eric Sciuillo
- Robin Matson
- Elena Galkina
- Gordon Lai
- Robert Rossi
- SCP Management Team



Thank you!

Contact Information

SaferConsumerProducts@dtsc.ca.gov

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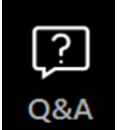
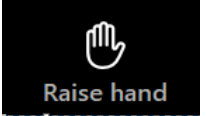
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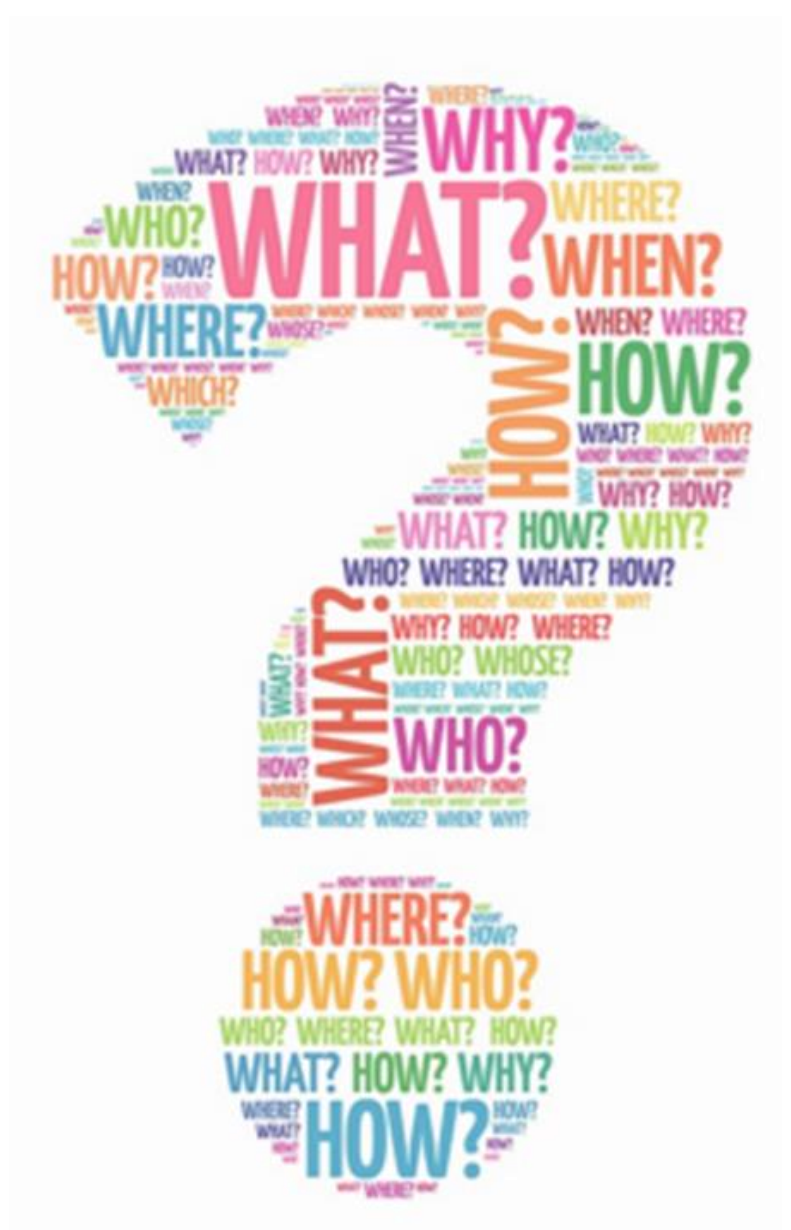
We Invite You to Comment

- Public comment period opened on August 1, 2024, and will close on September 24, 2024
- You may access the comment period at: <https://calsafer.dtsc.ca.gov/>



Q&A

- Click  at the bottom of your screen to type in your question.
- Click  to raise your hand.
- Please ask only **one (1) question** at a time.
- We will not be using the chat function.
- Phone Users: Press *9 to raise your hand and press *6 to unmute.





Break – Meeting Will Resume Shortly

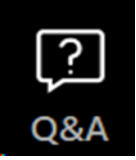


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Public Comments

- Click  at the bottom of your screen to type in your comment.
- Oral Public Comment Via Zoom:
 - Use the "Raise hand" feature to indicate your desire to speak.
 - If you are calling in, dial *9 to raise your hand. You will be prompted to unmute. Then press *6 to unmute.
- Submit written comments via our CalSAFER website or to SaferConsumerProducts@dtsc.ca.gov



Questions on Proposed Priority Product

1. Is the definition of “nail products” clear and accurate?
2. Are the GS1 Global Product Classification (GPC) codes referenced for nail products relevant and comprehensive?
3. Are there any studies, reports, or primary literature about alternatives to TPhP that we should consider in our proposal?
4. Are there any potential obstacles to adopting alternatives to TPhP in nail products?
5. Is our proposal to set an AAT of 250 ppm for TPhP in nail products clear? Should we propose a different AAT and why?
6. Are the proposed method performance criteria for meeting the AAT of 250 ppm clear and complete?





Closing Remarks

Andre Algazi, Branch Manager



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