

## 2016 Children's Safe Products - Reporting Rule update Draft Chemical Evaluation

**CAS** 85535-84-8; 108171-26-2

**Substance Name** Short-Chain Chlorinated Paraffins (SCCPs)

### Toxicity

Short-Chain Chlorinated Paraffins (SCCPs) are classified as carcinogens by authoritative sources [1, 2]. The U.S. National Toxicology Program classifies chlorinated paraffins (C12, 60% chlorine) as reasonably anticipated to be human carcinogens based on liver, kidney and thyroid tumors in rodent testing. California Proposition 65 also lists chlorinated paraffins (CAS No. 108171-26-2) (average chain length, C<sub>12</sub>; approximately 60 percent chlorine by weight) as carcinogens.

The European Union lists SCCPs as a substance of very high concern (SVHC), as it meets the criteria for both a persistent bioaccumulative and toxic (PBT) substance and a very persistent, very bioaccumulative substance (vPvB) [3].

### Exposure

SCCPs could be present in children's products as they have been used as plasticizers and a flame retardant in plastics, especially PVC. Other minor domestic SCCP uses are as a plasticizer and a flame-retardant additive to a variety of products including: rubber formulations, paints and other coatings, and adhesives and sealants [8].

SCCPs are included on Washington State's PBT list (WAC 173-333-320) [4]. SCCPs have been detected in breast milk as well as other human tissues [5,6]. SCCPs are found world-wide in the environment, wildlife and humans. SCCPs bioaccumulate in wildlife and humans, and are persistent and transported globally in the environment [7].

### References

1. NTP, *Report on Carcinogens, Thirteenth Edition: Chlorinated Paraffins (C12, 60% Chlorine)*. October 2014. National Toxicology Program. <https://ntp.niehs.nih.gov/go/roc13>.
2. OEHHA. *Proposition 65 list - Office of Environmental Health Hazard Assessment Safe Drinking Water and Toxic Enforcement Act of 1986*. 2016 [accessed 10/13/2016]; Available from: <http://oehha.ca.gov/media/downloads/cnr/p65single09302016.pdf>.
3. ECHA, *Substance name: Alkanes, C10-13, chloro; EC number: 287-476-5; CAS number: 85535-84-8. Support Document for Identification of Alkanes, C10-13, Chloro As a Substance of Very High Concern*. 2008, European Chemicals Agency. p. 36.
4. Ecology, *Concise Explanatory Statement and Responsiveness Summary for the Adoption of Chapter 173-333 WAC, Persistent, Bioaccumulative, Toxins*. 2006, Washington State Department of Ecology: Olympia.
5. Thomas, G.O., et al., *Short and medium chain length chlorinated paraffins in UK human milk fat*. *Environ Int*, 2006. **32**(1): p. 34-40.
6. Darnerud, O.A., M.; Glynn, A.; Borgen, A., *Chlorinated Paraffins in Swedish breast milk*. 2012, National Food Agency and Norwegian Institute for Air Research.
7. EPA, *Short-Chained Chlorinated Paraffins (SCCPs) and Other Chlorinated Paraffins Action Plan*. December 30, 2009, U.S. Environmental Protection Agency.