



CHLORINATED PARAFFIN OVERVIEW

- Chlorinated paraffins (CPs) have been in commerce globally for over 70 years. CPs are complex chemical substances that are formed by the reaction of linear hydrocarbons (paraffins) with chlorine. They are typically colorless to pale yellow liquids, though some highly chlorinated long-chain CPs are solids.
- CPs play an important role in U.S. and worldwide manufacturing. In fact, their popularity has grown considerably on the global scale with the emerging manufacturing sectors in China and India. China and India are now the largest and second largest producers of CPs in the world, respectively.
- CPs have critical applications including as an additive in metalworking fluids for aerospace, energy and defense applications, as flame retardants and plasticizers in industrial rubber and polymer applications, and as additives in specialized coatings. There is a long history of safe use of CPs in all of these applications.
- EPA has been reviewing this class of chemistry since the 1970's. It was EPA that originated the concept of grouping them into three categories based on carbon-chain length and percentage chlorination:
 - Short-Chain (SCCP), C10-C13
 - Medium-Chain Chlorinated Paraffin (MCCP), C14-C17
 - Long-Chain Chlorinated Paraffin (LCCP), C18-C30
- EPA recently added the category very Long-Chain (vLCCP) to designate CPs predominantly >C20 in length and started using the term LCCP to mean just C18-C20.
- There was a major testing program of these substances in the late 1970s and early 1980s, conducted by industry with EPA oversight. The National Toxicology Program (NTP) also conducted testing on CPs in the 1980s.
- EPA's risk management review of CPs in the early 1990's identified some environmental concerns with SCCP (C10-13), which was added to the Toxics Release Inventory (TRI) in 1994. Concerns were not identified for MCCP and LCCP.
- In December 2009, EPA informed the U.S. CP suppliers that they have been using the wrong Chemical Abstract Service (CAS) numbers to report their production on the TSCA Inventory and that these substances needed to go through the new chemical process (including pre-manufacturing notices or PMNs) to be added to the TSCA Inventory.

Chlorinated Paraffin Overview, continued

- In March 2012, EPA announced the TSCA Work Plan for the assessment of existing chemicals and included MCCP and LCCP as priority chemicals for review. EPA posted a Peer Review Plan for MCCP and LCCP on its website in 2013, but has not yet conducted this peer review and public comment period.
- The CP industry has been cooperative with EPA, providing numerous submissions of information on toxicity, environmental fate, use patterns, waste generation and handling practices for MCCP and LCCP. The CP industry also stopped the manufacture and import of SCCP, which was the primary substance of concern for EPA.
- Based on its preliminary risk assessment, indicating environmental concerns but no human health concerns, EPA has stated that it is planning to eliminate the manufacture or import of MCCP and LCCP after May 31, 2016.
- Downstream users of MCCP and LCCP cannot transition to MCCP or LCCP free products by May 31, 2016. In some cases, there are critical uses of MCCP and LCCP for which alternatives have yet to be developed.
- Using the PMN review process to make corrections to existing substance descriptions on the TSCA Inventory has greatly complicated action on MCCP and LCCP because it excludes important stakeholders from impacted downstream manufacturing industries. It also means that there is NO public notice and comment period and transparent review of the science behind EPA's decision to ban MCCP and LCCP with no transition time for the industries that make and use them.