

Recent, preliminary data show D4, D5 levels in wastewater lower than expected

A recent study has shown that levels of octamethylcyclotetrasiloxane (D4) and decamethylcyclopentasiloxane (D5) in wastewater are typically lower than what was previously predicted.

CES-Silicones Europe commissioned Environmental Resources Management (ERM), to develop a study plan to monitor the concentrations and mass loadings of D4 and D5 in Waste Water Treatment Plant (WWTP) influent. The objective of this plan is to monitor the outcome of the recently adopted [restriction](#) of D4 and D5 in wash-off personal care products.

The D4/D5 levels in WWTP influent are representative of the per capita consumption of cosmetic products containing D4 and D5 by the general public. Therefore, a reduction in D4/D5 levels in wash-off cosmetics after the restriction is implemented would indicate that the restriction is effective in reducing releases.

The project takes place in 6 European locations over the course of three years: before the restriction, during the transition period, and after the restriction enters into force.

The first preliminary results can be found in the executive summary [here](#). These results were reached following analysis of more than 120 samples of untreated water flowing into waste-water treatment plants, in different seasons and at varying times.

Results: Concentrations of D4 and D5 were typically lower than predicted pre-restriction baseline concentrations at all of the WWTPs, and in the case of D4, already consistent with the predicted post-restriction levels. These concentrations are lower than expected, though the conclusions cannot be considered definitive at this point in time. The monitoring programme will continue over the next years, and CES will continue to share the results with all relevant stakeholders.

Read more about how cyclosiloxanes such as D4 and D5 evaporate and degrade in the environment [here](#).

