Abstract

The concentration of decaBDE used as flame retardant additives for plastic material was analyzed in Tokyo Bay. There are three resources (the atmosphere, major rivers, and direct waste water from sites) of the decaBDE loading fluxes to Tokyo Bay. We used AIST-ADMER(AIST-Atmospheric Dispersion Model for Exposure and Risk Assessment) and AIST-SHANEL(AIST-Standardized Hydrology-based Assessment tool for chemical Exposure Load) to estimate the chemical loading fluxes from the atmosphere and the major rivers, developed by the National Institute of Advanced Industrial Science and Technology(AIST). And, the decaBDE concentrations were analyzed by AIST-RAMTB (AIST- The Risk Assessment Model for Tokyo Bay) in Tokyo Bay after the estimation of the chemical loading fluxes as a condition for the calculation.

The concentrations of dissolved decaBDE showed a high value (0.001　0.003ng L-1) at Sumida riv. estuary and around the points of waste water from sites. On the contrary, the high average concentration of decaBDE, 258ng g-1 was estimated in sediments.