were compiled from published scientific literature, governmental reports, and the NORMAN network’s EMPODAT database. The dataset now contains ca. 30,000 entries of data, collected from 1996 to 2014, from all sources. Three areas for consideration were identified that needed to be addressed to enable calculation of summary statistics: First, most of the measured values were actually below a limit of detection, especially for a study and detection limits varied over several orders of magnitude across all studies. The Kaplan-Meier method was used to estimate concentrations below detection limits from the distribution of values above these detection limits in studies with a lower detection limit. Second, many studies only reported summary statistics such as means or ranges. When the number of samples was known, values were imputed from the lowest 2.5% of samples above detection limits. The imputed concentrations were identical to the summary statistics reported and the distribution of the imputed concentrations approximated a log-normal distribution. Third, many sampling campaigns collected samples over broad areas, while others collected multiple samples at a few locations thus requiring the use of weighting factors. To avoid this, we used the same weight in calculating summary statistics. For Europe, a total of 3,675 freshwater and 456 marine water weighted observations are available. For freshwater locations, 30% were below a detection limit. Median and upper 95th centile concentrations for the full distribution of weighted observations were 0.029 and 0.30 µg/L. For marine locations, 39% were below a detection limit. Median and upper 95th centile concentrations were 0.007 and 0.15 µg/L. The distribution of weighted observations of BPA will be compared to the distribution of aquatic ecotoxicity data for freshwater and marine organisms.

WE248 Single substance and mixture toxicity of emerging polar micropollutants detected in the marine environment
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The European Union’s Marine Strategy Framework Directive (MSFD) adopted in 2008 aims to achieve Good Environmental Status (GES) of the EU’s marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. Good Environmental Status is defined as: “The environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive.” In practice, involved countries should aim for maintenance of biodiversity, healthy populations of commercial marine fish species, food webs ensuring long-term abundance and reproduction, and no effects caused by contaminant concentrations. The NewSTHEPS project addresses the current fundamental scientific and methodological issues related to the implementation of GES of the marine environment by development of novel procedures for comprehensive environmental monitoring and risk assessment. A key part of both priority and emerging contaminants in the marine environment. In March 2016, an explorative sampling campaign and chemical monitoring based on SPE-IC-Oritrap-HRMS was performed in one Belgian harbour and at one open sea location in the Belgian part of the North Sea; and several personal care products, pesticides and personal care products were detected. This study investigates how to determine chronic effect concentrations for some of the detected compounds to fill toxicity gaps of emerging polar chemicals for marine organisms. Thus, we chose 2 pesticides (chloridazon and pirimicarb) and 2 pharmaceuticals (carbamazepine and sulfamethoxazole) based on detection frequency, lack of marine ecotoxicity data and physico-chemical properties. The selected substances were tested individually and as mixtures in a 72h growth inhibition test with the marine diatom algae Phaeodactylum tricornutum (according to the ISO guideline 10253) and effect concentrations were determined. The results will be presented and discussed in a context of marine chemical mixture risk assessment. Acknowledgments The authors thank the Belgian Science Policy (BELSPO) for funding the NewSTHEPS project (BR/143/A2/NEWSTHEPS; www.newstheps.be). The financial support from the Hercules Foundation (Flemish Government; AUGE/11016) and from the Ghent University Special Research Fund (01B07512) is acknowledged for the UHPLC-Q-ExactiveSM and the automated SPE equipment, respectively.

WE249 Development of a rapid screening methods for pathogenic bacteria by using chemical contaminants in Olympic Triathlon swimming courses at Tokyo bay
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Two areas of sound ecosystems and economic activities such as fishing industries and recreations. Especially, Triathlon games will be held at coastal areas in Tokyo bay (Odaiba marine park) in 2020 Tokyo Olympic game. However, surface water in swimming areas for triathlon is contaminated by chemicals and pathogens in combined sewage overflows (CSOs) from Kanto metropolitan areas. The central government released the water quality standards recommended by International Triathlon Union. Therefore, effective countermeasures should be performed by 2020 Olympic games and water quality should be monitored during the games. But, it takes about one day to measure the concentrations of these bacteria by general methods. Moreover, these concentrations fluctuate daily according to weather conditions. As a result, it is difficult to evaluate these concentrations and human risk on the day of the games. Adding to these factors also carry chemical contamination. However, through this analysis, contaminants do not have adverse effects on athletes, previous reports discussed their correlations to E. coli. This study will demonstrate some simple indicators for E. coli at swimming courses in Tokyo Bay. The concentrations of these pathogenic bacteria are monitored with simple water qualities such as transparency, suspended matters (SS), total organic carbons (TOCs), caffeine and crotonamine. Transparency and SS are influenced intensely by algae bloom in the bay. However, a new TOC analyzer could demonstrate water contamination near coastal areas and could reveal that dissolved organic carbon concentrations have a strong relationship to E. coli concentrations at Tokyo bay. This may be caused by various unknown factors contaminates in dissolved organic compounds (humic acids (HAs), certified for the concentrations of naphthalene, anthracene, fluoranthene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene and humic acids (HAs), certified for the concentrations of naphthalene, anthracene, fluoranthene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene and fluorene (including smartphone software) for recreational water area near metropolitan area.