

## **Comparison of pharmaceuticals and surface active compounds discharged to sea in the Faroe Islands**

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In the last few years, a series of surveys of pharmaceuticals, surface active compounds and additives in industrial, health and personal care products have been done in the Nordic Countries, including in the Faroe Islands. The surveys have partly been done in all of the Nordic Countries simultaneously, or only in parts of this area, as the North-east Atlantic. Quite a few of these have shed light on the near-shore environmental status of Torshavn, the capital of the Faroe Islands.

In all 38 pharmaceuticals or metabolites of pharmaceuticals have been analysed, as has anionic, amphoteric and cationic surfactants and a selection of softeners like phthalates and adipates. The analyses have been done on samples from waste water treatment plants, both sludge and influents and effluents, and on surface water and sediments in the near-shore marine environment which serves as recipient of the discharges.

The selection of pharmaceuticals for the survey was based on the number of defined daily doses supplied. Also, the selection was based on previous studies and risk assessments in Nordic countries like Norway and Sweden on pharmaceuticals and additives in personal care products as environmental pollutants, including inventories of volumes from products registers, on analytical considerations and ambient limitations in general.

Of the PPCPs analysed, a few, like diclofenac and ibuprofen, were detected in every or nearly every sample, and some, like simvastatin and sulfamethizole, were not detected in any. The limited availability of data meant that it was not possible to assess the environmental risk for approx. one third of the pharmaceuticals analysed. The highest environmental risk appears to stem from common surfactants, and then mainly the amphoteric cocoamidopropylbetaine and the anionic sodium laureth sulphate.