

Musks

Musks are substances with a musky scent used in a variety of consumer products including cosmetics, detergents, fabric softeners, cleaning and household products. From the three groups of substances referred to as musks, musk xylene (a nitro musk) is prioritised by OSPAR.

What is the problem?

Musk xylene is a very persistent substance which accumulates in biota and is toxic to marine organisms. Nitro musks are not produced in Europe, but are imported and exported both as pure substance and in finished products. Consumption volumes of musk xylene have remained stable since 1998. Musk xylene are diffusely released to the marine environment from the widespread dispersive use of consumer products. The main sources for releases to the environment are domestic waste water and effluents from the sewerage systems and sewage treatment plants.

What has been done?

EU restrictions apply to the contents of nitro musks, including musk xylene, in cosmetic products. Musk xylene has been proposed for authorization under the REACH Regulation ((EC) No. 1907/2006) as very persistent and very bioaccumulative substance. An EU risk assessment has recently been concluded and the need for risk reduction measures is still under consideration.

Did it work?

National studies in 1995 – 2000 suggested that musks are found at low concentrations in effluents from sewage treatment plants and in sewage sludge and that discharge levels were steadily decreasing. Studies in 2004 indicate that levels measured in southern Europe are lower than those observed in the northern countries. There are limited observations of very low concentrations in rivers.

How does this affect the quality status?

There is no monitoring data available on concentrations of musk xylenes in the marine environment. OSPAR has not given priority to environmental monitoring of musk xylenes, but promotes exposure and risk assessments to clarify the concern of the substance for the marine environment.

Electronic navigator to OSPAR publication sources (publication number):

- ↪ Status and trend of marine chemical pollution (395/2009)
- ↪ Towards the cessation target (354/2008)
- ↪ Background Document for musk xylene and other musks (200/2004) (as updated)