

Das2 (C.I. Flurescent Brighterner 220)

(CAS numbers: e.g. 16470-24-9, EC number: 240-521-2

/ Entry number in HELCOM list of substances of concern: 11)

General sectors: Industry and commercial products

DRIVERS

ACTIVITIES

PRESSURES

STATE

IMPACTS

Why a HELCOM concern?

Main evidence

P Approximately **5 - 19 tonnes of Das2** are estimated to enter the Baltic Sea every year via WWTP emissions. Additional riverine inputs beyond the WWTP contributions are possible. Given that the substance is **suspect as very toxic**¹, current inputs are likely significant, in terms of risk they pose for the Baltic Sea and its ecosystem services. The data on WWTP discharges (2010-2019) originates from the study of Undeman et al. (2022)².

I Current inputs to the Baltic Sea indicate potential negative impacts at least on pelagic biota.

Overall assessment

When assessing current levels in the Baltic Sea (no relevant measurement data), current inputs, and the severity of the relevant toxicity mechanism, Das2 scores **33-100/100** in the scale established for assessing the overall risk for impacts/threat for the Baltic Sea, where 50 indicates concern, 100 extreme risk, and the width of the span outlines the uncertainty in the assessment.

Facts relevant for management considerations

Causal chain and pathways

A The EU REACH registered volume for Das2 is 10,000 – 100,000 t/y³. According to ECHA's ARN⁴, registered uses are as an optical brightener e.g. in washing and cleaning products, textiles, and other types of products.

S ? *In order to further improve the evaluation of the risk, relevant aspects to consider are a review of the relevant toxicity thresholds (expected relevant matrices) and marine monitoring or modelling for predicted environmental concentrations based on estimated inputs.*

Relevant policies (existing or planned measures)

M (on A/P) • Das2 is covered by a recent **Assessment for Regulatory Needs prepared by ECHA** on the group of Ditriazine stilbenesulfonic acid dyes⁵. In this report, it is stated, that Das2 is unlikely to have an environmental hazard. However, this seems to be in contradiction with the tentative threshold value for water indicated in the NORMAN Network ecotoxicology database⁴.

References:

1. 2. 3. 4. 5.

[Note: Listing of detailed references will be provided in an upcoming update of the fact sheet – for a listing of the most common references among the different substances see the section at the end of the consolidated document which includes all the fact sheets]