2-Propen-1-yl 2-(cyclohexyloxy)acetate

(CAS numbers: e.g. 68901-15-5, EC number: 272-657-3
/ Entry number in HELCOM list of substances of concern: 4)

General sectors: Industry and commercial products, personal care product

DRIVERS | ACTIVITIES | PRESSURES | STATE | IMPACTS

Why a HELCOM concern?

Main evidence

S Concentrations of a substance tentatively identified as 2-Propen-1-yl 2-(cyclohexyloxy)acetate exceed the applied threshold value in all the **29** examined areas (assessment units) of the Baltic Sea. The threshold is exceeded in both coastal and off-shore areas (**5**/5 assessed off-shore areas). In these 29 areas, on average **95%** of the assessible samples in **biota** exceed the threshold value. This is based on suspect screening data from the project PreEMPT[1]. A total number of 100 data points were possible to evaluate for this substance.

By further considering how much above or below the threshold each concentration is, and how often the substance is detected, 2-Propen-1-yl 2-(cyclohexyloxy)acetate scores **8.9/10** (confidence range: **7.7 – 9.0**) in the scale established when assessing the criticality/significance of current levels in the Baltic Sea pose, where 5 indicates concern and 10 extreme risk, and the range reflects the level of reliability and representativeness of concentrations and the thresholds.

The threshold value for 2-Propen-1-yl 2-(cyclohexyloxy)acetate in biota was acquired from the NORMAN Network ecotoxicology database[2].

I Current levels in the Baltic Sea indicate potential negative impacts on pelagic biota and/or top predators such as mammals and birds.

Overall assessment

When assessing current levels in the Baltic Sea, current inputs, and the severity of the relevant toxicity mechanism, 2-Propen-1-yl 2-(cyclohexyloxy)acetate scores **58-91/100** 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 2-Propen-1-yl 2-(cyclohexyloxy)acetate is 10 - 100 t/y[3]. Registered uses include consumer uses (washing and cleaning products, air care products, biocides, polishes and wax blends, cosmetics; professional uses (washing and cleaning products, polishes and wax blends); and industrial uses (formulation)[4]. Classification & labelling notifications have been received by ECHA by about 1,800 manufacturers/importers[5]. Therefore, the total amount in the EU market may be higher than the registration band. According to the SPIN database, for the period 2017-2021, in Sweden and Denmark the substance was reported in total amounts up to tonnage bands of 15 kg/y – 1.5 t/y and 0 – 88 kg/y respectively[6]. The substance is authorised in the EU for use in cosmetic products (as perfuming agent).

S **?** *In order to further improve the evaluation of the risk, the first aspect to consider is identity confirmation (PreEMPT samples). If identity is confirmed, then a furhter aspect to consider is a review of the relevant toxicity threshold (biota).*

Relevant policies (existing or planned measures)

M (on A/P)

- 2-Propen-1-yl 2-(cyclohexyloxy)acetate is **listed in the EU Cosmetics Regulation (EC) 1223/2009 (regulated as a perfuming agent for which the level of free allyl alcohol in the ester shall be less than 0,1 %)**.

References:

1. 2. 3. 4. 5. 6.

[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]