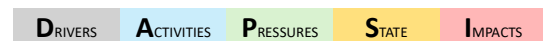


# Kinoprene

(CAS numbers: e.g. 42588-37-4, EC number: 255-898-9  
/ Entry number in HELCOM list of substances of concern: 14)

General sectors: (Legacy?)  
pesticide



## Why a HELCOM concern?

### Main evidence

**S** Concentrations of a substance tentatively identified as Kinoprene exceed the applied threshold value in **6** of the 15 examined areas (assessment units) of the Baltic Sea. The threshold is exceeded in both coastal and off-shore areas (**2/3** assessed off-shore areas). In these 6 areas, **100%** of the assessable samples in **biota** exceed the threshold value. This is based on suspect screening data from the project PreEMPT<sup>1</sup>. A total number of 41 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, Kinoprene scores **7.9/10** (confidence range: **7.7 – 8.5**) 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 values for Kinoprene, in sediment and biota, were acquired from the NORMAN Network ecotoxicology database<sup>2</sup>.

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

### Supporting evidence

**I** Kinoprene is considered to have an especially **concerning mode of toxicity**: for example it is toxic for reproduction<sup>3</sup>.

### Overall assessment

When assessing current levels in the Baltic Sea, current inputs, and the severity of the relevant toxicity mechanism, Kinoprene scores **69-84/100** 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** Kinoprene is not approved in the EU as an active ingredient in plant protection products since 2002<sup>4</sup>. No information has been retrieved about the current status of approval/use in Russia. Function-wise, it is a 'biochemical' pesticide (insect juvenile hormone mimic) mainly applicable to non-food crops. 39 companies have submitted Classification & Labelling notifications to ECHA for kinoprene in the context of the EU CLP Regulation<sup>5</sup>, but it is not clear if this could relate mainly to minimal amounts in the Scientific Research and Development market or other potential industrial uses below 1 tonne per year and company.

**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 further relevant aspect to consider is a review of the relevant toxicity threshold (biota), as well as the market status in Russia, potential uses beyond plant protection in the EU, and potential for long-range transport in particular as Kinoprene was until recently (if not being still) in use in other parts of the world<sup>6</sup>.*

### Relevant policies (existing or planned measures)

**M** -

### 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]