



HNS-MS : Improving Member States preparedness to face an HNS pollution of the Marine System

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When dealing with a HNS pollution incident, one of the priority requirements is the identification of the hazard and an assessment of the risk posed to the public and responder safety, the environment and socioeconomic assets upon which a state or coastal community depend. The primary factors which determine the safety, environmental and socioeconomic impact of the released substance(s) relate to their physico-chemical properties and fate in the environment.

Until now, preparedness actions at various levels have primarily aimed at classifying the general environmental or public health hazard of an HNS, or at performing a risk analysis of HNS transported in European marine regions. Operational datasheets have been (MIDSIS-TROCS) or are being (MAR-CIS) developed collating detailed, substance-specific information for responders and covering information needs at the first stage of an incident. However, contrary to oil pollution preparedness and response tools, only few decision-support tools used by Member State authorities (Coastguard agencies or other) integrate 3D models that are able to simulate the drift, fate and behaviour of HNS spills in the marine environment. When they do, they usually consider simplified or steady-state environmental conditions.

As a significant step forward, a 'one-stop shop' integrated HNS decision-support system has been developed in the framework of the HNS-MS project. Focussing on the Bonn Agreement area, the system integrates

1. A database containing the physico-chemical parameters needed to compute the behaviour in the marine environment of 120 relevant HNS;
2. A digital atlas of the HNS environmental and socioeconomic vulnerability maps ;
3. A three dimensional HNS spill drift and fate model able to simulate HNS behaviour in the marine environment (including floaters, sinkers, evaporators and dissolvers).
4. A user-friendly web-based interface allowing Coastguard stations to launch a HNS drift simulation and visualize post-processed results in support of an incident evaluation and decision-making process.

All these results will be further presented.