

## Japan tests 'super absorbent' beads

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A Japanese government agency has tested a 'super absorbent polymer' designed to effectively contain oil and chemical spills, as well as reducing the emanation of hazardous chemical vapours.



Vessel spraying the beads onto the water surface

The **Maritime Disaster Prevention Centre (MDPC)**, working in cooperation with the Japanese Coast Guard, has engineered a state-of-the-art absorbent polymer called Imbiber Beads®.

The official launch of Imbiber Beads® earlier in October was the result of more than five years of extensive worldwide evaluation of technologies available for mitigating Hazardous & Noxious Substance (HNS) spills at sea.

Imbiber Beads® are designed to 'capture and contain' a wide range of organic chemicals such as xylene, benzene, styrene, toluene, gasoline, diesel fuels, crude oil, and thousands of others.

Its absorbent ability is likened to that found in a baby's disposable diaper that wick water away. The major difference is that the beads are completely unaffected by water.

This makes the beads suitable for soaking up and containing spills of organic contaminants that have spilled into canals, drains, rivers and reservoirs.

Toxic vapour emissions can be reduced by up to 95%, and using the beads allows for safer and easier disposal of toxic and flammable HNS.

Imbiber Beads® are polymer spheres the size of granules, engineered with extremely high absorption capacity.

Once absorbed, the liquid contaminant becomes part of the molecular structure of the Imbiber Beads®.

Strategic inventories of Imbiber Beads® are to be located at 70 major seaports across Japan by 2009. The first 23 'high risk' seaports have already been equipped with 12.5 tonnes of the product.

The search for a more effective way to contain spills came after 40 metric tonnes (mt) of highly volatile and highly toxic chemical spilled into **Tokyo Bay** in 1999.

In spite of best efforts, the chemical, known as Xylene, evaporated over several days and exposed millions of Japanese citizens to hazardous chemical vapours in the atmosphere.