



Scientific workshops for Interspill 2012

Understanding chemicals

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After the incident, main questions

Population

Where is the product?
Where will the product go?

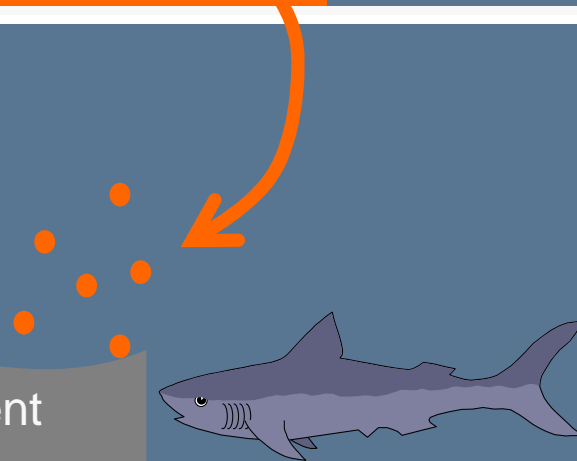
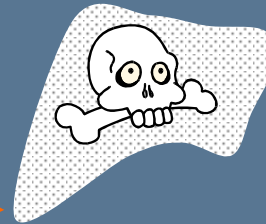
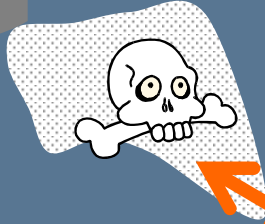
Responders

Pollution

Environment



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Answers can be found

- In the scientific literature
- With the help of tools (*modeling, databases, SEBC Code, expertise...*)

BUT with uncertainties...

- Regarding the product (*lab data, properties are determined independently of each other...*)
- Regarding the environment (*coastal current, toxicities for valuable marine species...*)

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Thus the need of experimental work

To validate the behaviour of the product

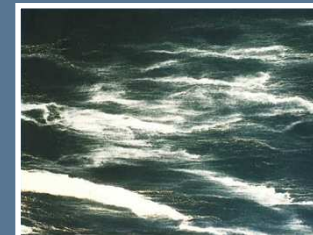
The reality of the fate may differ from the Bonn Agreement classification (SEBC Code) because of the competition between all processes

Methyl ethyl Ketone
Methyl methacrylate
...

~~ED~~ → E

The physical state of the cargo may change due to its release in the environment

Palm oil (Allegra, 1997)



Diocetyl Phthalate (DOP)



To assess the risks associated to a situation



Risks posed by a leak from a wreck

Possibility to observe a slick at the sea surface even if the limit of solubility is high (Ievoli Sun, 2000, Methyl ethyl Ketone)



Risks posed by the reactivity of the cargo

Have to face another type of pollution

Ece, 2006

- Phosphoric acid => Algae bloom
- Impurities => heavy metals

To adapt detection methodology / protocol



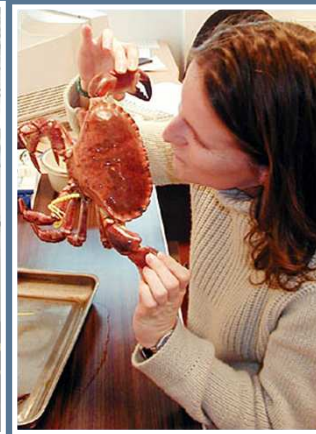
Continuous cloud?



From a homogeneous slick!

To optimize the assessment of the impact on marine species

Relevant economical species
are or not able to accumulate
the product released
(consumers protection)



How to perform such experimental work?

To take the opportunity during an emergency response



Not easy

To conduct R&D projects



Few R&D funds dedicated to marine pollution (EU, National level...)

To conduct studies for the Industry



Which industry is ready to pay for?

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