Cleanup contaminations of past For a kinder, gentler tomorrow

## SpillRemed (Marine)

#### For Open water Marine Spills

- Acts on weathered oil
- Used as a polishing tool for shoreline cleanup
- Fraction phase solution
  - Amount of SpillRemed needed is proportional to the amount of oil spilled.
  - I gallon treats 10 gallons of oil regardless of volume of water
- Short remediation time
- Reduces operational stress on the spill response team
- Used in shallow water spills
  - Does not adversely impact the ecosystem.
  - Tri Bird Institute, DE has identified it as a good pretreatment agent for oiled birds
  - Visit www.sarvabioremed.com

# A Clean Solution to Marine Oil Pollution

#### Advantages of SpillRemed (Marine)®

- Included in NCP list of US EPA.
- Available in a ready-to-use liquid form.
- Effective even after 72 hours on a spill.
- Effective for shoreline cleanup
- Environmentally safe

## Order SpillRemed (Marine) on line

http://shop.sarvabioremed.com

Disclaimer: SpillRemed (Marine)<sup>®</sup> is on the US EPA's NCP Product Schedule. This listing does not mean that EPA approves, recommends, licenses, certifies or authorizes the use of SpillRemed (Marine)<sup>®</sup> on an oil discharge. This listing means only that data have been submitted to the US EPA as required by subpart J of the National Contingency Plan 40 CFR Section 300.915

## Sarva Bio Remed, LLC

25 Marianne Drive, 'B' York, PA 17406

# SpillRemed (Marine)® For Open Water Spills & Shoreline Cleanups





## Sarva Bio Remed, LLC

Phone: 877-71-SARVA (US only) Ph: 717-779-0040 (International)

Fax: 419-710-5831

Email: sales@sarvabioremed.com

# Where there is a spill There is SpillRemed

## SpillRemed (Marine)®

## For Open Water Oil Spills

SpillRemed (Marine) $^{\otimes}$  is included in the National Contingency Product list of US EPA as a **bioremediation agent**.

It is introduced at any time in the lifecycle of the spill: at the beginning of a spill while the crew is gathering material support to contain the spill or after setting up of recovery facilities.

Unlike chemical dispersants, SpillRemed (Marine)<sup>®</sup> works on weathered oil also, therefore providing the safety net in your spill response decision-making process.

It is a multi-tasking bioremediation agent and therefore can also be used for cleanup of polluted shorelines as an effective polishing tool.

SpillRemed (Marine)<sup>®</sup> is <u>non-toxic</u> and is not harmful to marine life and it is safe to handle.

SpillRemed (Marine) is cost effective and saves considerable amount of time and money.

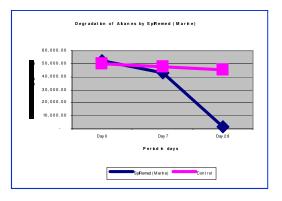
It is the first response solution for marinas, boat owners and pipe line operators after any fuel oil release

It is also a first response tool for utility companies near the shore line for any releases in open waters.

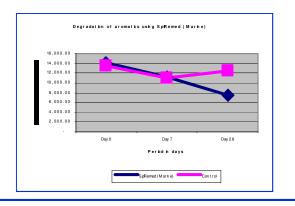
## **Effectiveness report**

SpillRemed (Marine) has been evaluated by an independent laboratory as a bioremediation agent as per the protocol laid down by US EPA. The test oil used is Alaska North Slope Crude heated to 541 °C to remove all low boiling fractions of hydrocarbons.

It is seen that at the end of 28 days time period the value of alkanes is reduced by more than 97% as seen below.



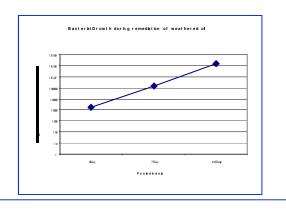
Reduction in aromatics was relatively less and was found to be 41% as seen below.



# A Clean Solution to Marine Oil Pollution

## Correlation between bacterial growth and oil consumption

The analysis also showed that population of bacteria increase with increase in breakdown of the test oil thus indicating that role of bacteria is important in oil degradation as seen in graph presented in logarithmic scale below. The starting population of 16,000/ml became 149,000,000/ml. The population will continue to grow till oil as food is available.



#### Our Other Bioremediation Products:

AgroRemed For contaminated soils

VaporRemed For elimination of fumes

BilgeRemed Ship board treatment of oily bilge water

SpillRemed Industrial applications

(FW)

HydroRemed For ground water biore-

mediation