



## POWERFUL, SAFE AND EFFECTIVE CLEANING WITH UNCOMPROMISED PERFORMANCE

RSC ENVIROLOGIC® CASE STUDY WITH SOLOI INC. MARITIME CARGO SHIPPING



Cleaning bulk cargo holds between shipments can be a messy job. When it comes to selecting industrial cleaning products, performance and safety are of utmost importance. In order to meet the needs of their operations, as well as regulatory demands, vessel operators seek high performing products that won't harm cargo hold surfaces, people or the marine environment in which they operate.

### BACKGROUND

Headquartered in Athens, Greece, Soloi, Inc. offers bulk cargo transport services, transporting mined materials,

agricultural goods and construction products worldwide. The company was formed in 2006 to manage vessels and primarily operates in Europe, Asia, the United States, South America and Africa. Soloi's fleet consists of four bulk carriers with stern tube propulsion systems and has two builds underway to expand its operations.

**THE COMPANY WAS PLEASED WITH THE RESULTS OF THE SIDE-BY-SIDE COMPARISON AND, SUBSEQUENTLY, IS EXPANDING THEIR USE OF SC 1000 AQUEOUS CLEANER CONCENTRATE.**

### CHALLENGE

Soloi ships a variety of cargo, including materials that leave a vessel's cargo hold extremely dirty. These cargo holds are roughly

5,000 square meters each (a total of five holds), or nearly 54,000 square feet, and painted with modified epoxy-type paint. The frequency of cleaning the cargo holds correlates to the changes in cargo—any time there is a change in what



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is hauled, a thorough cleaning likely needs to occur in between changes. Each round of cleaning takes about 800-1200 litres (200-265 gallons) of cleaning product.

Beyond needing a high quality, effective cleaner, Soloi also needed to consider environmental regulations.

The U.S. Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) revisions require any above water line hull cleaning or deck wash-downs resulting in discharge to be conducted with “minimally toxic, phosphate-free and biodegradable” cleaners and detergents as defined in the permit.

Soloi vessels frequently visit Houston and New Orleans as ports of call, and, therefore, these EPA mandates impact their choice for cleaning products.



## SOLUTION

Ganos Lubricants, a distribution company, supplied RSC Bio Solutions' SC 1000™ Aqueous Cleaner Concentrate to evaluate use in one of the Soloi's merchant vessels, DIMI. The vessel's bulk cargo holds needed to be cleaned while it was in USA waters and enroute to loading port, after carrying petroleum coke and coal—materials that leave significant residue.

Each cargo hold was initially washed down with seawater cannon to remove residues. Then each cleaner, SC 1000 Aqueous Cleaner Concentrate and the incumbent product, a heavy-duty alkaline foaming cleaner, was sprayed from bottom to top with a 10 percent dilution, allowed to dwell for 10 to 20 minutes, then rinsed with a high-pressure cannon sprayer from bottom to top.

## RESULTS

When comparing the SC 1000™ Aqueous Cleaner Concentrate to the incumbent product, Soloi saw equal performance in the products, both with and without brushing the hold walls. However, Soloi did note several advantages to using the SC 1000 Aqueous Cleaner Concentrate product. SC 1000 Aqueous Cleaner Concentrate did not dry as quickly as the incumbent product at the observed temperature—so it didn't require the application of additional product. The result: less product used and completion of the job in less time.

***“With the product we used previously, the foam dried too quickly—before we even finished spraying the cargo hold. Slower drying is definitely a performance plus and an important component of our evaluation.”***

***- DIMI Captain, Igor Pyrig***



Additionally, Soloi's current cleaner is a high alkaline, high pH product commonly found in the marketplace. These high pH products pose a greater risk to the user due to the possibility of it burning a person's skin or serious injury if it gets into the eyes. SC 1000 Aqueous Cleaner Concentrate, with a mild pH of about 10, can cause irritation if it gets in the eyes, but doesn't pose the risks the other product does.

Finally, the incumbent product is not 2013 VGP approved, potentially causing negative impact to the marine environment and driving Soloi to seek a VGP-compliant alternative. RSC Bio Solutions certifies that



its products for applications in the marine industry, including SC 1000 Aqueous Cleaner Concentrate, meet the EPA's definition of Environmentally Acceptable

Lubricants (EAL)—and, therefore, are 2013 VGP compliant and 2014 sVGP compliant.

The company was pleased with the results of the side-by-side comparison and, subsequently, is expanding their use of SC 1000 Aqueous Cleaner Concentrate.

### SC 1000 AQUEOUS CLEANER CONCENTRATE

Used in a variety of industrial and commercial applications, SC 1000 Aqueous Cleaner Concentrate is RSC Bio Solutions' most versatile and powerful biodegradable cleaner.

Comprised of non-ionic surfactants and seed ester alcohols, SC 1000 is a colloidal solution that creates a unique hydrocarbon release agent that can tolerate tremendous soil load.

The powerful cleaning action of SC 1000 will cause long chain hydrocarbon soils including fats, greases, oils and sugars to repel from the surface so that the product can rinse away with water, without damaging or reacting with the cleaning surface.

SC 1000 is not a typical caustic detergent or petroleum solvent; therefore, it will not damage or react with the cleaning surface.

**For more information about RSC Bio Solutions, visit us at [rscbio.com](http://rscbio.com) or call +1 704.684.6100.**



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600 Radiator Road  
Indian Trail, NC 28079-7643  
800.661.3558  
+1 704.684.6100

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