

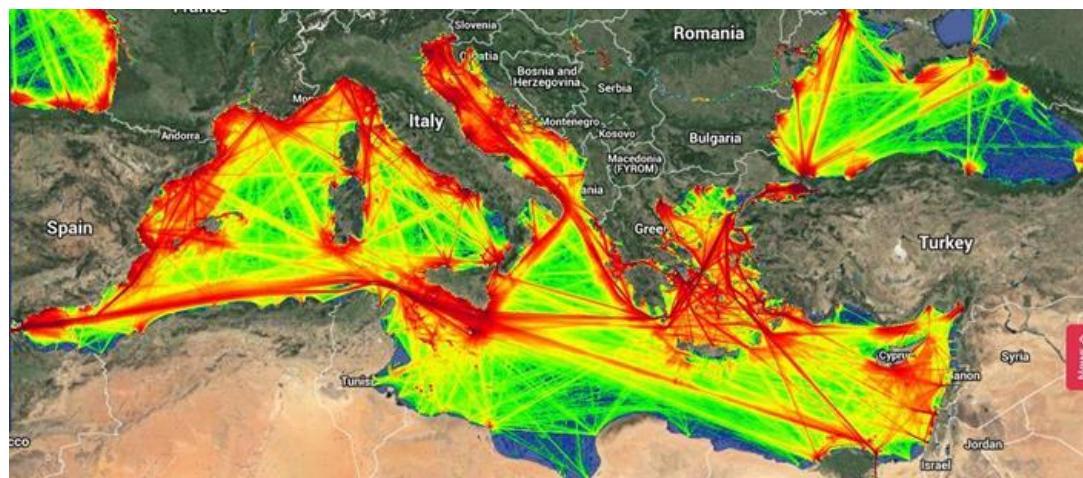
## TECHNICAL INFORMATION

# MEDITERRANEAN ECA, IN-SERVICE FUEL TANK CLEANING

Over a decade ago, Innospec was the pioneer behind developing “In-service” tank cleaning, with its Octamar™ BT-25 setting the benchmark in preparation for the 2015 Emission Control Areas and the 2020 global sulphur cap. Intelligently applied in a progressive manner, our clients report 100% satisfaction, with no reported incidents. Doing the hard work for you, only Octamar™ BT-25 has the pedigree, so accept no imitations.

### INTRODUCTION

From 1st May 2025, the Mediterranean Sea will become the 5th Emission Control Area (ECA), limiting the Sulphur content in fuels to 0.1%. The Mediterranean Sea is one the of the highest-density shipping routes in the world, and the implications of this ruling to shipping is significant. Vessels frequently transiting or trading in the area, will need to reallocate all or part of their fuel storage tank system, to a new compliant fuel.



### WHY DO I NEED TO CLEAN MY FUEL TANKS?

Compliant fuels used in the new Mediterranean ECA will either be distillate based MGO (Marine Gas Oil), or residual based ULSFO (Ultra Low Sulphur Fuel Oil), or possibly even a biofuel blend. In all scenarios, these fuels are paraffinic in nature and have a high solvency effect. Before the first loading of new lower sulphur fuel, it is essential that the buildup of old residues, sludge, sediments and catfines in the fuel tanks are cleaned out. If not, the following risks are being taken:

- When paraffinic fuel is loaded into a dirty tank, it will clean the tank rapidly, leading to severe purifier blockage, filter blockage and potentially fuel starvation (LOP)
- Without cleaning, high sulphur sludge will remain in the tanks, pipework and system. The compliant fuel will dissolve this sludge quickly, increasing the sulphur content and potentially resulting it non-compliance.

**WHAT IS THE BENEFIT OF OCTAMAR™ BT-25 VERSUS MANUAL TANK CLEANING METHODS?**

- Significantly less expensive than manual tank cleaning. It is conservatively estimated, that up to an 80% saving can be made in direct costs.
- As tanks are cleaned “in-service”, it means no disruption to operations or off-hire period for the vessel, yielding further indirect cost savings.
- Safe for personnel. Clean the tanks without entering them – no enclosed space entry or staging required.
- Unlike manual cleaning, the whole fuel system is cleaned including pipework and settling and service tanks, without missing any areas. This helps to ensure sulphur compliance with no unexpected problems.
- Well proven technology. The industry choice in preparation for earlier ECA zones, and the 2020 global sulphur cap.

**Before Application of Octamar™ BT-25****After 4 Cycle Application of Octamar™ BT-25**

## HOW DOES OCTAMAR™ BT-25 WORK?

Octamar™ BT-25 is an innovative and highly concentrated dispersant stabiliser additive, used extensively across the maritime industry to improve residual fuel stability and compatibility, and thereby reduce fuel sludge and related issues. This dispersancy effect has been long demonstrated, with clients consistently reporting clean storage tanks, delivery systems and purifiers, and this action can be exploited. The product works by gradually breaking down and dispersing the agglomerations of asphaltenic sludge and sediments. This sludge is slowly re-emulsified into the fuel, where the advanced combustion improver in Octamar™ BT-25 ensures clean burning. Meanwhile, any undesirable sediments and particles are removed by the purification system.

## HOW LONG DOES OCTAMAR™ BT-25 TAKE TO CLEAN THE TANKS, WHEN SHOULD I START?

Octamar™ BT-25 is applied initially at a low dosing rate, gradually increasing with each bunker cycle. This ensures a smooth and careful cleanup of the system. The time taken depends per vessel, frequency of bunkering, and residence time within the tanks. But a typical ship bunkering once a month could achieve clean tanks in as few as 3-4 cycles. By this example, clients would be well advised to start planning and supplying their fleets during Q3/4 2024, ready to start application in late 2024 or early 2025. Innospec can assist to create ship specific application plans to give optimal results.



## WHAT IF I ALREADY ROUTINELY USE OCTAMAR™ PRODUCTS IN MY FUEL?

Routine users of any Octamar™ products containing Innospec's dispersant stabiliser chemistry will observe they already have clean tanks, so little action is required. Consideration may be given to a double dosage in the last bunker before reallocation. Examples of such products are Octamar™ BT-25, BT-8 Plus, Complete, HF-10 Plus or Ultra HF.

## BEYOND REALLOCATION, WHAT PRODUCTS ARE RECOMMENDED FOR OUR NEW FUEL?

Any compliant fuel type has its own common quality challenges. Furthermore, history has clearly shown that when demand shifts to a new fuel type in a local area, a spike in quality issues can be expected, most notably, the stability of the blends, where heavy sludging is a regular occurrence. **Innospec has developed innovative products which specifically tackle common issues with ULSFO and MGO, and are available to assist and advise accordingly. Get in touch today.**

Please contact your local sales representative for more information.

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