



TECHNICAL CIRCULAR No. 701 of 5th October 2021

To	All Surveyors/Auditors. All flags
Title	Anti-fouling and environment
Reference	AFC

Anti-fouling and environment

Anti-fouling is a necessity at sea but anti-foul paint is releasing millions of tonnes of microplastics and other chemicals into our waters.

Every year, marine industry spends billions on coating ship hulls in paint to prevent a variety of marine species from making home on ship bottoms.

The nature of anti-foul techniques is to deter living species from settling on ship bottom, so it is obvious that anti-foul paint is toxic and given that anti-foul comes off ship bottom off the time.

Recent research has also shown that around 20% of all microplastics in our seas are coming from the bottom of the ships.

Anti-fouling:

- Helps to keep ship speed up
- Reduces fuel consumption

The paint contains heavy metals and other additives which are, by design, pretty toxic to marine environment.

Ships are leaving trails of microplastics in the water, as planes leave vapor trails in the sky.

Microplastics are so small, near impossible to clean up and are being ingested by marine animals and even us. As a non-natural substance, these tiny pieces of plastics are being shown to have devastating impacts on marine species.

There are three main reasons why anti-foul is toxic:

- 1st is the fumes, when applying it in solvent form
- 2nd is the binding materials in paint which are basically plastic particles. This makes up around 20% of the plastic soup in seas.
- 3rd is really the worst part, which is the copper content, the biocides in anti-foul which keeps organisms from growing on the bottom of ships, is really damaging for our seas.

Ways to limit anti-foul pollution of sea waters:

CONARINA Head Office

6505 Blue Lagoon Dr. Suite 455

Miami, Fl., 33126

Tel: 1 (786) 558 5288,

Fax: 1 (786) 325 0200,

[*joel@conarinagroup.com*](mailto:joel@conarinagroup.com)

- Shipyards to have wash-down system which catch the water coming off hulls as the shipyard power-wash and remove last season's cracking anti-foul.
- Catch as much of the stuff that comes off ship's hull. Shipyard should avoid working with anti-foul on a windy day and always use tarpaulins under ship bottom to collect all the bits of paint and debris.
- Collected bits to be disposed to hazardous material facilities.

REFERENCES:

- Anti-fouling Convention

ATTACHMENTS: No

Kindest Regards,
CONARINA Technical Office

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Joel@conarinagroup.com