# Antifoulings
## The Legislative Position By Country

### October 2008 Update

#### CANADA
All antifoulings applied in Canada require registration with the Government (Health Canada).

**Restrictions**
- Application of antifoulings containing TBT completely banned under Canadian law.
- All registered antifoulings containing copper must have a release rate of less than 40µg copper/cm²/day.

### EUROPEAN UNION COUNTRIES
Antifoulings applied in EU member states must be notified or authorised for use. Products requiring sale in UK, Sweden, Malta, Netherlands, Eire, Belgium, Finland and Austria must be registered under national pesticide laws before supply can begin.

**Restrictions**
- Application of TBT antifoulings to all vessels is forbidden in all EU countries under the Marketing and Use directive (76/769/EEC).
- Use of copper in antifoulings under review by EPA as part of registration eligibility decision (RED) process. Review should be complete in 2015.
- US Department of State and EPA also reviewing environmental inputs of copper from antifoulings used on US Government vessels. Decision (under UNDS regulations) expected in 2008/9 which will set maximum copper leaching rate for antifoulings used.
- Concern exists over the amount of copper in waters of Californian harbors and marinas. Antifouling paints have been identified as major source of copper in these areas. In some local areas (e.g. Shelter Island Marina, San Diego) long-term timescales have been set for a 70% reduction of copper.

**Restrictions**
- US-EPA Registrations of all TBT antifoulings have been cancelled.
- Antifouling paints applied in large shipyards in USA subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) rules, i.e. antifouling paints must contain less than 400g VOCHAP/I paint.
- In California certain air quality districts impose maximum levels of Volatile Organic Compounds (VOC) that can be used in antifoulings used on pleasure craft.

#### JAPAN
Antifouling paints applied in Japanese shipyards should be registered as TBT-free by Japanese Paint manufacturers association (JPMA).

**Restrictions**
- Application of TBT antifoulings in Japan is forbidden.
- Application of TBT antifoulings on all ships/boats flying flags of EU countries are also banned and those with active TBT antifoulings are forbidden from entering European ports and harbors.
- Ships over 400 gross tonnage flying flags of EU countries must be surveyed and carry certificates of compliance with this directive. Ships over 24 m in length and less than 400 gross tonnage must self-certify as compliant.

#### CHINA
All substances imported and used in antifoulings applied in China must be registered on Chinese inventory of existing substances with the Government.

**Restrictions**
- All antifoulings applied in Hong Kong must be registered.
- All substances used in antifoulings applied in S Korea must be registered on the Korean existing chemicals list.

### SOUTH KOREA
All antifoulings applied in Australia require registration both Federally with the Environmental Protection Agency (US EPA) and with each state authority.

**Restrictions**
- Use of copper in antifoulings under review by EPA as part of re-registration eligibility decision (RED) process. Review should be complete in 2015.

**Restrictions**
- Application of biocidal antifoulings to all vessels is forbidden in all EU countries under the Marketing and Use directive (76/769/EEC).
- Under EC regulation No 782/2003, application of TBT antifoulings on all ships/boats flying flags of EU countries are also banned and those with active TBT antifoulings are forbidden from entering European ports and harbors.
- Ships over 400 gross tonnage flying flags of EU countries must be surveyed and carry certificates of compliance with this directive. Ships over 24 m in length and less than 400 gross tonnage must self-certify as compliant.

#### SINGAPORE / MALAYSIA / VIETNAM / THAILAND / INDONESIA / INDIA
To date no registration procedures for antifouling paints exist under pesticide / biocide laws.

#### AUSTRALIA
Antifouling paints applied in Australia require registration with NRA (National Registration Authority) under pesticide laws.

**Restrictions**
- Application of TBT antifoulings forbidden.

#### NEW ZEALAND
Antifouling paints are regulated under the standard chemical regulations governing general paints.

**Restrictions**
- Application of TBT antifoulings is forbidden.

- **NL** = use of 'Diuron' in antifoulings banned.
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Key Points Summary

OVERVIEW

Antifouling paints containing biocides are classed as biocidal products and are regulated like pesticides in many countries.

Whilst biocidal antifouling products are important to the shipping industry for economic and environmental reasons, those deemed damaging to the environment or dangerous to human health will be eventually phased out.

When evaluating the safety of antifoulings to man and the environment, key issues are:
- Effects on non-target organisms
- The length of time biocides remain in the environment
- Build up in the marine food chain
- Safety during application

Foul release coatings which do not rely on biocides to work (eg Intersleek) do not require registration as pesticides or biocidal products.

ANTIFOULING PAINTS - REGULATORY PROGNOSIS

As the IMO-AFS Convention is now in force, TBT antifoulings are banned by all countries who have ratified it. TBT is also banned in all countries of the European Union under EU law.

In future, the use of biocidal anti-fouling paints (including those containing copper) will become more regulated, especially in sensitive environments.

International Paint carries out thorough risk assessments for all its antifouling products to ensure they can be used safely in the environment.

Effective biocidal antifouling paints and biocide-free fouling release coatings which do not damage the environment will continue to be available from International Paint.

COPPER IN ANTIFOULING PAINTS

The use of copper in antifouling paints has been reviewed by most governments regulating antifouling paints, it’s use determined as safe and approval granted for use. Restrictions on the use of copper in pleasure craft antifoulings have been introduced in specific areas of Sweden:

- **Sweden**
  The Baltic Sea is considered environmentally sensitive due to its low salinity. It is inhabited by a relatively small number of delicate aquatic species. The Swedish authorities have therefore applied the Precautionary Principle and banned copper from use on pleasure craft operating in coastal areas of the Baltic Sea without consideration of all the scientific evidence. Although the importance of protecting this unique aquatic environment is recognised, adverse effects from copper, originating from anti-fouling paints, have never been observed in this region.

- **Netherlands**
  It has long been recognised that copper levels within certain inland waterways in the Netherlands are uniquely high due to the quantity of pollution present from rivers originating in other parts of Europe. These copper levels are neither related to, or effected by, the use of copper in anti-fouling paints and there has been no observed effect on the environment. The Dutch authorities however, tried to ban the sale of copper-containing anti-fouling paints for use on pleasure craft in the Netherlands. This proposal was overturned by the Dutch courts which ruled that the case made by the government authorities to ban copper-based antifoulings was not proven.