



*Boating – a pure pleasure!*

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## Nordic co-operation

Nordic co-operation, one of the oldest and most wide-ranging regional partnerships in the world, involves Denmark, Finland, Iceland, Norway, Sweden, the Faroe Islands, Greenland and Åland. Co-operation reinforces the sense of Nordic community while respecting national differences and similarities, makes it possible to uphold Nordic interests in the world at large and promotes positive relations between neighbouring peoples.

Co-operation was formalised in 1952 when the Nordic Council was set up as a forum for parliamentarians and governments. The Helsinki Treaty of 1962 has formed the framework for Nordic partnership ever since. The Nordic Council of Ministers was set up in 1971 as the formal forum for co-operation between the governments of the Nordic countries and the political leadership of the autonomous areas, i.e. the Faroe Islands, Greenland and Åland.



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# Information for Nordic boat users

This brochure is for those of you who enjoy boating, are a member of a boat club or responsible for a marina.

This brochure gives information about the duties of boat owners and marinas to reduce pollution in and around marinas. Examples of ways to reduce pollution are also given.

Some solutions to reduce pollution will require changes and investments in the marina.

Country	Approx. number of boats *
Sweden	600,000
Norway	500,000
Denmark	50,000
Finland	370,000
Iceland	2,000
The Faroe Islands	2,000
The Åland Islands	8,000

\*Dinghies, canoes and row boats not included.

Other solutions only require willingness to do things in a different way.

We hope this brochure will be useful and inspiring for the many boat users in the Nordic countries.



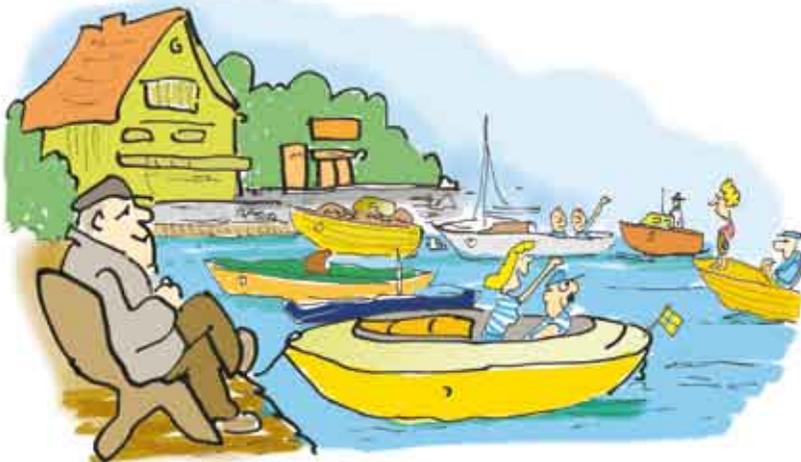
# The marina – a pleasant place to be?

We consume approximately half a million litres of antifouling paint and even more of other boat maintenance products for leisure boating in the Nordic countries a year.

Antifouling paint containing active ingredients (biocides) has harmful effects on organisms living in the water.

Other boat maintenance products may also contain environmental toxins that can contaminate the ground in the marina and the sea.

- Environmental toxins have a negative effect on the total food chain, from small marine organisms to fish and shellfish. Because of this, fish and shellfish may become poisonous and inedible.
- Leaching of environmental toxins from the marina can pollute sediments on the seabed.
- Environmental toxins can cause environmental problems long after the causes of pollution have been removed.
- Environmental toxins can reduce the value of the area because cleanup is very expensive.
- Leakage and spillage of oil and fuel can contribute to bad water quality.



# Reducing pollution is everyone's responsibility



- All boat users have a duty to deposit their waste when they arrive at the marina.
- All marinas have a duty to accept waste from the boats that arrive.
- All marinas must have a waste management plan which ensures that waste is managed according to relevant rules and regulations.
- All marinas have a duty to prevent pollution, and have the necessary equipment available for emergencies.
- The authorities regulate the active ingredients in antifouling paint. It is everyone's duty to be up to date on what types of antifouling paint are allowed.

It is a good idea to appoint someone who is responsible for environmental work in your marina or boat club. This person can be up to date on laws and regulations and good abatement measures. A good start is to identify the sources of pollution in your marina in order to find out which abatement measures should be carried out.

# Hazardous waste in the marina

**Hazardous wastes can cause serious pollution, or damage to humans or animals, if not properly taken care of. The local authority has the responsibility to ensure that a system for hazardous wastes is in place. It is our responsibility to collect and deposit hazardous waste in approved waste facilities.**

## **Hazardous wastes in the marina**

Hazardous wastes must not be mixed with other wastes, but deposited in separate hazardous waste containers.

- Paint and solvent residues
- Residues and dust from antifouling paint
- Used containers, paint brushes, cloths and rags with residues of paint and solvents on/in them.
- Engine oil and lubricants
- Used electrical and electronic equipment
- Engine batteries
- Oil spillage in the bottom of the boat
- Other hazardous wastes, such as alkali batteries, mercury thermometers, old pharmaceuticals and other chemicals

The more easily available and more user-friendly the waste facility in the marina is, the easier it is to manage the waste in the correct way.

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## **Storage of hazardous wastes**

- Hazardous waste must be stored in suitable waste containers. The waste containers are to be labelled according to the type of contents.
- Hazardous wastes must be kept in a locked area.
- Appoint one specific person to be in charge of the storage facility. This person must declare the contents of the waste and deliver it to an approved waste management facility.



# Preparation for the boating season

## Collection of dust and waste from sanding and scraping

Before launching their boats, most people remove the remains of old antifouling paint.

If the hull of the boat is not well maintained, the layer of antifouling paint can crack and flake off. Good maintenance of the hull will therefore reduce water pollution.

Residues and flakes of antifouling paint are an important source of pollution if not collected.

Residues and flakes of antifouling paint can be collected in a quite simple way if the boat is scraped while standing on a smooth surface or a plastic sheet.



## A vacuum cleaner can be useful

Scrapings and dust can be collected using an industrial vacuum cleaner with a vacuum-scraper and a polisher/sander. The Danish Sailing Association has, in cooperation with the Danish Environmental Agency, developed a set of guidelines on the cleaning of antifouling hull paint.



All ports are encouraged to have equipment for vacuum cleaning available. This equipment can be hired, or loaned, to boat owners.

It is recommended to use a vacuum cleaner that:

- is designed for electrical tools
- has approved filters for hazardous dust (HEPA filters)
- can be used outdoors /in humid weather
- has big wheels for easy transportation
- has an indicator that shows when the bag needs changing

**Vacuum cleaner bags containing paint dust are classified as hazardous waste, and should be deposited at a hazardous waste reception facility.**

Read more about dust collection methods on <http://www.mst.dk/kemi/01070000.htm>

# Good things to know when buying boat maintenance products

## Labelling of environmentally better products



The Swan  
Eco-label



The EU  
Flower



Good  
Environmental Choice

Products meeting certain environmental criteria may be Eco-labelled. The eco-label “The Swan” and the “EU flower” are official labels in the Nordic countries. The Swedish “Good Environmental Choice” is an example of a national eco-label. At the moment only a few boat products are eco-labelled. If you demand eco-labelled products, the supply will probably increase.

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## Labelling of environmentally hazardous products

Products are labelled as environmentally hazardous if the content of environmentally hazardous ingredients exceeds certain amounts.

Examples of boat products that may be labelled as environmentally hazardous are:

- antifouling hull paint containing biocides
- solvents or solvent based paint and varnishes
- polish, fillers and glues

Residues of environmentally hazardous products are classified as hazardous wastes and must be handled and deposited at hazardous waste reception facilities.



Products can also be labelled as hazardous to health (irritant, corrosive, toxic, harmful, carcinogenic). Residues of such products are also hazardous waste.

# Choice of products

Good maintenance increases the boat's life. In general, good maintenance is therefore good for the environment.



**Here are some questions to consider before maintaining your boat.**

- **Do you really need all the products you are using?**  
Some products are very efficient because they contain high amounts of strong chemicals.  
Several products are labelled as hazardous to health or as environmentally hazardous. Can you replace these products with other products or methods?
- **How do you handle solvent and chemical residues?**  
Solvents and chemicals must not be poured into the sea or onto the ground. Even a very small amount of these substances can lead to a negative effect on the environment. Are these residues handled so they cause no harm?
- **What about alternatives to biocide-based hull paint?**  
Boats that are used a lot need fewer active ingredients in the anti-fouling paint than boats that are little used. Do you use your boat a lot? Are there less harmful, alternative products on the market?

# Alternatives to antifouling paints containing biocides

Antifouling paint often contains active ingredients (biocides), such as copper or zinc, to prevent the growth of bacteria, plants and organisms on the boat's hull. Several of these products have harmful effects on life in the sea.



There are other methods to avoid the problems associated with growth on the hull of your boat.

Here are some examples of methods you can consider to replace antifouling paints containing biocide:

- **Boat washer.** Wash your boat often by using a floating boat washer.
- **Algae sheet.** A type of sheet that sits tightly around the underwater parts of the hull when your boat is in the marina.
- **Dry dock.** There are inflatable dry docks suitable for marinas.
- **Very hard and smooth paints.** These ensure that organisms cannot attach themselves to the hull.
- **Locate the marina in a river mouth or in the shadow.** More fresh water and less sun leads to less algae growth.

# Preparation for winter

## Rinsing the boat

At the end of the boating season, the boat's hull is often cleaned with water at high pressure. Copper and other active ingredients in the antifouling paint are mainly attached to solid particles. This means that it is important that you hose down the boat in a place where the particles in the water can be separated and collected.

## Measures for the marina

A washing-down area should be installed, where water runs off into a collection and sedimentation tank.

- If boats are washed down on the quayside, the water can be led through a grating and down into a sedimentation tank.
- If boats are washed down in the winter storage area, the storage area should have a smooth surface where the water can be led into a sedimentation tank.

The water can then be passed through a sand filter. Polluted sludge and particles can be collected from the tank and filter and are to be handled as hazardous waste. The size of the sedimentation tank must be adjusted according to the level of activity at the marina.

Marinas located in vulnerable areas can be required to clean the washing water with more efficient methods than described here.



# Fuel and oil



## **Storage of fuel and oil**

Tanks for fuel and oil storage above ground level must stand on an impervious base with a raised edge. This base must be large enough to contain the total content's of the tank. Tanks and pipelines below ground level must be checked on a regular basis.

## **It is easier to prevent than to clean up oil spills**

Ensure that hoses, tanks and pumps on land and on boats are in good condition. Filling of portable fuel and oil tanks should be done on an impervious base where spillage can be collected.

## **Choice of fuel**

Alcylate petrol is an extra pure quality engine fuel. It contains less harmful ingredients than fuels such as benzene, aromatics and olefins. Alcylate petrol substantially reduces the pollution from engines. This is particularly important if you use your boat in vulnerable areas – such as areas with still water or in fresh water. Read more about alcylate fuel on: <http://www.spi.se>.

## **Choice of oil**

Use biodegradable engine oil.

## Prepared for emergency

- Keep absorbent materials available to collect spills of oil on land, in the water and in the boat. Organic materials such as wood fibres, bark and degradable absorption chemicals are some of the spill control products that are available.
- Remember that gasoline damp is highly flammable. If there is a spill of gasoline, please contact the local fire department. They can assist with safe clean up procedures.
- Do not use chemicals (dispersion agents such as dish washing liquid or the like) to dissolve oil spills. It is better to use absorbing materials and spill collection equipment adapted to your marina and surroundings. Many suppliers can offer packs of different types of collection equipment (“Spill kits”).



## More Information

- Denmark** Danish Environmental Protection Agency.  
Phone: +45 32 66 01 00. [www.mst.dk/homepage](http://www.mst.dk/homepage)
- Information Centre – Danish Ministry of the Environment.  
Phone: + 45 70 12 02 11. [www.frontlinien.dk/ukindex.asp](http://www.frontlinien.dk/ukindex.asp)
- Faroe Islands** Food, Veterinary and Environmental Agency of the Faroe Islands.  
Phone: + 298 356 400. [www.hfs.fo](http://www.hfs.fo)
- Finland** Ministry of the Environment. Phone: +358 9 160 07. [www.ymparisto.fi](http://www.ymparisto.fi)
- Finnish Environmental Institute. Phone: +358 9 403 000. [www.ymparisto.fi](http://www.ymparisto.fi)
- Regional environment Centres. [www.ymparisto.fi](http://www.ymparisto.fi)
- Iceland** The Environment and Food Agency.  
Phone: +354 591 2000. <http://english.ust.is>
- Icelandic Maritime Administration. Phone: +354 560 0000. [www.sigling.is](http://www.sigling.is)
- Norway** Norwegian Pollution Control Authority. Phone: +47 22 57 34 00. [www.sft.no](http://www.sft.no)
- County Governor's Environmental Department. [www.fylkesmannen.no](http://www.fylkesmannen.no)
- Sweden** Swedish Maritime Administration:  
Phone: +46 11 19 10 00. [www.sjofartsverket.se](http://www.sjofartsverket.se)
- Swedish Environmental Protection Agency:  
Phone: +46 8 698 10 00. [www.internat.naturvardsverket.se](http://www.internat.naturvardsverket.se)
- The Swedish Chemicals Inspectorate.  
Phone: +46 8 519 411 00. [www.kemi.se](http://www.kemi.se)
- Åland** The government of Åland. Phone: +358 18 25 000.



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Nordic Council of Ministers

Store Strandstræde 18  
DK-1255 København K

[www.norden.org](http://www.norden.org)

