

## Winterizing

- Use propylene glycol antifreeze for all systems.
  It is substantially less toxic than ethylene glycol antifreeze.
- For health reasons, ethylene glycol should never be used in potable water systems; it is highly toxic and cannot be reliably purged come springtime.
- Use the minimum amount of antifreeze necessary for the job.
- Add stabilizers to fuel to prevent degradation. Stabilizers are available for gasoline and diesel fuels and for crankcase oil. These products protect engines by preventing corrosion and the formation of sludge, gum, and varnish. Also, the problem of disposing of stale fuel in spring is eliminated.
- Be sure fuel tanks are 85-90 percent full to prevent flammable fumes from accumulating and to minimize the possibility of condensation leading to corrosion.
- Do not fill the tank more than 90 percent full.
  The fuel will expands as it warms in the spring-time; fuel will spill out the vent line of a full inboard tank.
- Be sure the gas cap seals tightly.
- Inspect and clean bilges prior to extended boat storage. Clean all water, oil, or foreign materials from the bilge using oil-absorbent material.

## In the Spring— Steps to Avoid Antifreeze Spills!

- **1.** Begin at a location away from open waters if possible.
- **2.** Check your bilge and clean out any oil if present with a bilge pillow or absorbent pad.
- **3.** Attach a hose directly to your intake port (inboards and some inboard/outboards) or use a flushing kit (ear muffs) for engines without a port. Attach the other end of the hose to a water source. Attach a second hose over the exhaust port and place the other end into a 5 gallon bucket or hold a bucket to catch the anti-freeze as it exits the engine. Have another 5 gallon bucket ready to switch the hose when the first bucket is full.
- **4.** Turn on the water and start your engine. Collect the water and anti-freeze mix in the two buckets, and then let the remaining water drain on the ground until the engine is up to temperature.
- **5.** Turn off the engine and water.
- **6.** Dispose of the diluted anti-freeze at the harbor or the hazardous waste collection center. The initial 5 gallon bucket may contain anti-freeze suitable for reuse next winter. Do NOT pour it into a storm sewer. These discharge directly into streams, lakes or wetlands. Never dump it in a septic system.
- **7.** If you notice any water or oil leaks during this process, your engine may need service.

For more information, check out our website: www.alaskacleanharbors.org