



SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC.
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Guidance on Firearms That Have Been Submerged or Exposed To Extensive Amounts of Water

Natural and man-made disasters may result in firearms being exposed to or completely submerged in rain or flood waters. The questions that arise are how best to preserve recovered firearms from further damage and determine if the firearm will ultimately be safe to use again.

There are two distinct concerns regarding firearms that have been exposed to water: parts susceptible to moisture and rust damage such as metal parts, wood stocks and grips, and optics; and, secondly, infiltration of the action, barrel, and safety systems by grit, silt, and other debris.

Traditionally, firearms have incorporated wood stocks, grips, and metal parts that are highly susceptible to damage from short-term exposure to or total submersion in water. Many firearms now incorporate corrosion-resistant metals and polymer stocks and frames that are less susceptible to damage from rain or flood waters; however, firearms owners should be aware that these newer materials are still susceptible to and or will propagate moisture damage unless properly attended to.

When a firearm has been exposed to or submerged in water, the first and foremost concern is to limit moisture/corrosion damage to the component parts of the firearm.

- The first order of business is safety: ensure the firearm is unloaded and always wear safety glasses when disassembling, assembling or otherwise working on the firearm.
- When at all possible remove the stock or grips from the firearm. Whether wood or synthetic, the stock or grips may trap and hold moisture against corrodible metal parts.
- If possible, disassemble the firearm to the extent described in the user's manual. If unsure of this operation, enlist the services of knowledgeable persons or a qualified gunsmith.
- Dry the metal, synthetic parts, and optics with available clean dry towels, cloths, or rags.
- Be particularly careful when drying off optics, as grit or silt that has been deposited on the lens may scratch the lens. Any optics should then be removed from the firearm at this point and returned to the manufacturer to insure that the hermetic sealing is intact and the lens coating not damaged.
- Very Important Note! Some moisture-displacing lubricants can cause damage to plastic/synthetic parts, anodized aluminum parts, wood finishes, and painted surfaces. Read the directions on the can and be aware of warnings.
- Flood all the metal parts and inside of the barrel with a moisture-displacing lubricant. Firearm-specific moisture-displacing lubricants such as but not limited to Birchwood-Casey Barricade®

(formerly marketed as Sheath™), Hoppes® #9 MDL , Militec 1®, and Brownells Rust Preventative No.2™ are very good and available at many gun shops and sporting goods stores. Products such as WD-40™, Liquid Wrench™, CRC™, Blaster Corrosion Stop™, and similar products will do the job and are widely available at home improvement stores, hardware stores, and automotive supply stores. Boeshield T-9™ is another proven product having been used by the Coast Guard for many years and available at many gun, sporting goods, bicycle, automotive, hardware, and home improvement stores.

- Work the moisture-displacing lubricant into every nook and cranny possible, as well as down the barrel.
- Using clean dry cloths or rags wipe off the initial application of moisture-displacing lubricant to remove as much contamination as possible. Apply a second coat of moisture-displacing lubricant to act as a surface protectant. At the earliest opportunity have the firearm inspected and serviced by the manufacturer, an authorized service center, or a qualified gunsmith.
- Special attention should be paid to wood stocks and grips. Exposure to or submersion in water may also result in damage to the wood finish. Wood stocks and grips in particular will hold moisture against metal parts for a long time and if not removed in a timely manner will greatly increase the probability of corrosion of metal parts they remain in contact with. Wood stocks and grips should be allowed to air-dry and not be force dried by exposure to heat. Allowing the wood to naturally air-dry will greatly aid in preventing the stock or grips from cracking or checking.

The above steps will go a long way toward stabilizing the condition of the firearm and limiting the damage caused by exposure to water.

Once the firearm has been thoroughly dried, consideration must be given to having the firearm inspected and serviced by the manufacturer, an authorized service center, or a qualified gunsmith *at the earliest opportunity and prior* to being put back into service. This is critical for the following reasons:

- A detailed disassembly, inspection, cleaning, and proper lubrication by qualified persons is the only practical means of preventing further deterioration of the mechanics and cosmetics of the firearm. It is also the best means of confirming that the firearm is mechanically safe to be put back into service.
- Exposure to or submersion in flood waters may result in the water depositing silt and other debris in the action and safety mechanisms, which can impede or even disable their proper function, or which may lead to an obstruction of the barrel which could result in a catastrophic failure.
- Exposure to or submersion in water may cause wood stocks and grips to swell and in some cases impede or even disable the mechanical function of the action and/or safety mechanisms.
- The moisture-displacing type products referred to as a class of product in this document are indicated for the intent and purpose of moisture displacement in the situations related therein. Some products in this class may not be ideally suited for use in conjunction with a firearm under normal circumstance. Individual products may have unique characteristics that

result in gelling, coagulation, or become so viscous as to prevent or impede the proper function of any mechanical system within the firearm. It is therefore imperative that the firearm be serviced by qualified persons prior to being put back into service.

- Depending upon the time the firearm has been submerged and the extent of exposure to sea salt and industrial and naturally occurring chemical substances that may be in the water source, it is impossible to ascertain with certainty the extent of the deteriorating effect, if any, the water may have had on individual component parts without a complete and thorough inspection and assessment of each individual firearm by qualified persons.

Failure to follow these recommendations can result in property damage, personal injury and death.