

WATER & AIR RESEARCH, INC. STANDARD OPERATING PROCEDURE FOR USE OF NOTOXhisto
FIXATIVE IN PLACE OF BUFFERED FORMALIN SOLUTION

DESCRIPTION

NOTOXhisto is a fixative that is non-carcinogenic, non-noxious, non-corrosive, has no heavy metals nor chloride ions. This affordable, state-of-the-art fixative allows you to perform all the tasks you previously performed with formalin, without the risk and the high cost of disposal. Unlike formaldehyde, antigenic sites and DNA are unaltered. All sizes of specimens ranging from small sections to whole organs can be fixed in NOTOXhisto. Due to a unique blend of protein modifiers and stabilizers, NOTOXhisto has the ability to both fix and preserve tissue. In addition, NOTOXhisto performs extremely well with immunohistochemical staining. You will get superior results with in-situ hybridization and PCR techniques. There is no pre-mixing or dilution, NOTOXhisto is ready-to-use. Use NOTOXhisto as you would formalin, without change in processing or staining protocols. You will find NOTOXhisto easier to work with than strictly regulated, toxic formaldehyde.

ORDERING INFORMATION

NOTOXhisto may be ordered from Scientific Device Laboratories at the following website:
<http://www.scientificdevice.com/notoxhisto/>

Order NOTOX in 5 gallon containers for use at Water & Air.

GUIDELINES FOR USE

- When transporting NOTOXhisto double-contain in a cooler with a class 3 fire hazard sticker on the cooler. Please review the safety data sheet.
- Use gloves when handling and use full strength to preserve biological samples.
- If you are in a boat, place the samples in their collection containers with site water on ice immediately until preservation with NOTOXhisto is possible.
- Use the following guidelines to preserve the samples.

HESTER-DENDY SAMPLES – Collect samples using FDEP SOP FS 7430 and upon retrieval, place Hester-Dendy sampler in wide-mouth container. Add site water and put on ice until you can preserve the sample. When preserving the sample, drain the site water using the sieve pressed firmly against the mouth of the container. Add enough NOTOXhisto to cover the sampler. Do not dilute. Replace and secure lid and gently tip and rotate container to insure proper preservation. Do NOT re-use the Hester-dendy plates due to potential toxicity to organisms.

DREDGE SAMPLES – Collect samples using FDEP SOP FS 7450 and rinse in a sieve bucket or box sieve. Rinse the sample into a sorting tray and then into a wide mouth collection container. Place sieve over mouth of container and carefully drain excess water from sample. Add enough NOTOXhisto to cover sample material in container. Do not dilute. Replace and secure lid and gently tip and rotate container to insure proper preservation. If you are on a boat and cannot preserve the samples immediately, put on ice in site water until you can use the preservative.

CORE SAMPLES - Collect samples using FDEP SOP FS 7440 and place into the sieve bucket or box sieve. Rinse the sample in the sieve and move to a sorting pan. Rinse the sample into the collection container. Hold the sieve over the mouth of the container and drain excess water from the sample. Cover the sample with NOTOXhisto and secure the container lid. Gently tip and rotate container to insure proper preservation. If you are on a boat, place the samples on ice until you can preserve them.

STREAM CONDITION INDEX SAMPLES

Collect samples following FDEP SOP SCI 1000 procedure, examining, rinsing, and removing detritus such as fresh leaves, pine needles, and sticks. Rinse sand and silt through the net from the sample by dipping and swishing the net in site water, keeping the rim of the net above the surface. Place sample material in wide mouth 2 or 4-L containers of stream water. Place on ice until preservation with NOTOXhisto or preserve immediately following this procedure:

Because of the detritus collected in an SCI, it is important to gently rinse the sample carefully. Drain the sample of the site water in the container using the collection net, and then pour the NOTOXhisto undiluted over the sample making sure there is an adequate amount to properly cover (about an inch) and preserve the sample. Secure the container lid and gently tip and rotate the container to make sure the organisms are in contact with the preservative.

WETLAND CONDITION INDEX SAMPLES

Collect samples following FDEP SOP FS7470 Florida Wetland Condition Index Sampling: Macroinvertebrates, with the following exception:

After reducing the sample volume as in 4.1 of the SOP, carefully drain the sample of the site water in each container using the collection net and without losing organisms in the sample. Pour the NOTOXhisto undiluted over the sample making sure there is an adequate amount to properly cover (about an inch) and preserve the sample. Secure the container lid and gently tip and rotate the container to make sure the organisms are in contact with the preservative.

STORAGE

Store NOTOXhisto tightly sealed indoors or in shaded shed (protect from heat and direct sunlight), double-contained in a well-ventilated room. Fumes could possibly be flammable.

DISPOSAL

In Alachua County, recycle the used NOTOXhisto at the Alachua County Hazardous Waste Center in labeled 5-gallon containers. Because it is alcohol-based it is less expensive to recycle than Formalin waste.