



MASTERTECH BULLETIN

(Revised 03/08/18)

BUFFERED ZINC FORMALIN CONCENTRATE WITH ZINC CHLORIDE

SUPERIOR MORPHOLOGY AND ANTIGEN AUGMENTATION

BUFFERED ZINC FORMALIN CONCENTRATE, THE PRODUCT AND ITS PURPOSE:

Using metal salts in tissue fixatives to augment penetration, cellular morphology, and to assist in fixation, has been scientifically chronicled for over a hundred years. Mercuric Chloride, the traditional metal salt used in tissue fixatives, is still in use today. *10% Buffered Zinc Formalin*, made by diluting **BUFFERED ZINC FORMALIN CONCENTRATE**, is an environmentally safer tissue fixative incorporating Zinc Chloride as the metal salt. Zinc Chloride acts on carboxyl groups to alter protein charges, while Formalin induces a cross-linking methylene bridge which results in excellent tissue fixation of virtually all tissue types. Cytomorphology of tissues fixed in *10% Buffered Zinc Formalin* is comparable to the cytomorphology of tissues fixed in B*5 Fixative with Mercuric Chloride.

BUFFERED ZINC FORMALIN CONCENTRATE, INSTRUCTIONS FOR DILUTION:

When diluted, **BUFFERED ZINC FORMALIN CONCENTRATE** makes five gallons of *10% Buffered Zinc Formalin*. To make a water-based formula, add 4 gallons of water to 1 gallon of **BUFFERED ZINC FORMALIN CONCENTRATE** in a five gallon carboy and mix until completely blended. To make a alcohol-based formula, add 1 gallon of water to 1 gallon of **BUFFERED ZINC FORMALIN CONCENTRATE** in a 5 gallon carboy and mix thoroughly. Next add 3 gallons of alcohol to the carboy and mix until completely blended. *10% Buffered Zinc Formalin* is a primary fixative that can be used in place of 10% Formalin. No deviation from normal fixation schedules is necessary. *10% Buffered Zinc Formalin* can be used in all tissue processors. If you are using a Vacuum Infiltration Tissue Processor we recommend wiping down the retort with a 0.1% Hydrochloric Acid solution followed by two hot water flushes daily. Twice a month flush the processor lines with a 0.1% Hydrochloric Acid solution followed by two hot water rinses.

BUFFERED ZINC FORMALIN CONCENTRATE, STABILITY:

Shelf life of **BUFFERED ZINC FORMALIN CONCENTRATE** is 2 years.

BUFFERED ZINC FORMALIN CONCENTRATE, PRECAUTIONS:

When handling any formaldehyde based tissue fixative, wear appropriate personal protection equipment, including lab coat, goggles, and gloves. Always use mechanical ventilation!

BUFFERED ZINC FORMALIN CONCENTRATE, DISPOSAL:

Check local regulations in your area for proper waste disposal.

Copyright ©1990-2018 American MasterTech Scientific. All rights reserved.

No part of these pages may be used for any purpose other than personal use. Therefore, reproduction, modification, storage in a retrieval system or retransmission, in any form or by any means, for reasons other than personal use, is strictly prohibited without prior written permission.