

INTENDED USE

Z-Fix is 10% aqueous buffered zinc formalin. It is used as a histological fixative.

PRODUCT SUMMARY

Z-Fix is designed to provide the desirable features of formaldehyde fixation without the negative effects of excessive crosslinking.

Formaldehyde fixation is a two-step process. First, formaldehyde forms addition products with macromolecules. Second, the formaldehyde adduct crosslinks the macromolecules, firming the tissue. While necessary for complete fixation, the crosslinks (methylene bridges) can block access to antigenic epitopes. With Z-Fix, both the zinc and formalin initially attach to tissue sites. Additional zinc ions then form large coordination complexes that prevent the formaldehyde from further crosslinking by simply getting in the way. The zinc constituent of Z-Fix gives cellular components enough rigidity without undesirable hardening.

Z-Fix prevents the formalin artifact described as nuclear bubbling, in which chromatin patterns are disrupted due to inadequate exposure to formalin. Enhanced H&E staining due to the mordant effect of the zinc is another Z-Fix benefit. With fewer methylene bridges, Z-Fix reduces or eliminates the need for antigen recovery procedures in immunohistochemistry.

INGREDIENTS

Formaldehyde, ionized zinc, buffer

WARNING

DANGER. CONTAINS FORMALDEHYDE. May cause cancer. Toxic if swallowed, in contact with skin or if inhaled. Causes serious eye damage. May cause sensitization by inhalation or by skin contact. Causes skin, eye, and respiratory irritation. Do not breathe vapors. Do not get on skin.

For In Vitro Diagnostic Use.

STORAGE

Store at room temperature.

Avoid freezing; product is not harmed but container may break.

Keep containers tightly closed when not in use.

DIRECTIONS FOR USE

Z-Fix is ready to use.

Best results are obtained when Z-Fix is used for collection and processing.

1. Processing recommendations:
 - a. Place Z-Fix in the first two stations on the processor. Ionized zinc is not corrosive to the machine.
 - b. Fix tissues for a total of 6-8 hours for highest quality nuclear detail.

- c. Alcoholic Z-Fix Concentrate (ANATECH Catalog #161) is strongly recommended as a secondary fixative on the processor when fixation time is short.
2. Specimens may be stored in Z-Fix indefinitely. Immunohistochemical reactivity will decrease only slightly after a month.
3. Z-Fix may be used as the primary or secondary fixative in conjunction with neutral buffered formalin (NBF). However, exposure to NBF can cause the precipitation of zinc phosphate.
 - a. A water rinse between fixatives is recommended to prevent the precipitation.
 - i. Inadequate rinsing causes precipitation in the processing chamber and in the first dehydrant.
 - ii. Remove by purging with a mild acid solution (5% acetic acid in water), followed by a water rinse.
 - b. The benefits of Z-Fix will diminish as time in NBF increases.

DISPOSAL

1. Contact a licensed professional waste disposal service to dispose of this material.
2. Dispose of contents/containers in accordance with governmental regulations.
3. Proper waste disposal is the generator's responsibility.

SAFETY DATA SHEETS (SDS)

SDS are available online at www.cancerdiagnostics.com.

ORDERING INFORMATION FOR Z-FIX

<u>Cat#</u>	<u>Packaging</u>
170	1 gallon
174	Case/4 x 1 gallon
175	5 gallon drum
622	Case/96 x 20 ml jars
626	Case/96 x 60 ml jars