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## TECHNICAL DATA SHEET 458

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# Zinc Formalin Fixative, Buffered

## The Universal Fixative of the 21st Century

Zinc Formalin Fixative (ZFF) provides excellent morphological preservation and superior histological sharpness of nuclear and cytoplasmic components. Zinc Formalin Fixative can replace 10% neutral buffer formalin (NBF) for all the routine tissue handling procedures, histochemical, immunohistochemical and special stains. Zinc Formalin Fixative is a non-precipitating compound and is compatible with automated tissue processors and manual procedures. Zinc chloride helps make all cellular components more rigid to withstand all subsequent processing, sectioning and staining procedures. Zinc Formalin Fixative used as a primary fixative will provide the best results, so cross-linking is kept to a minimum. Specimens initially fixed in 10% NBF may be post-fixed in ZFF. Tissues may be stored in ZFF for a week without any effect. For longer times, it is recommended to transfer to 10% NBF.

Complete fixation can be accomplished in four to six hours, instead of twelve hours or more required with formalin. For manual fixation procedures, time of exposure can be reduced by 50%. For automatic tissue processing we recommend the following protocol:

### STATION TIME

1	Holding	Fixative, ZFF, 23°C, no vacuum
2	60 min.	Fixative, ZFF, 23°C, vacuum
3	30 min.	70% Alcohol, 23°C, no vacuum
4	30 min.	80% Alcohol, 23°C, no vacuum
5	30 min.	95% Alcohol, 23°C, no vacuum
6	30 min.	95% Alcohol, 23°C, no vacuum
7	60 min.	100% Alcohol, 23°C, no vacuum
8	60 min.	100% Alcohol, 23°C, no vacuum
9	60 min.	Xylene, 23°C, no vacuum
10	60 min.	Xylene, 23°C, no vacuum
11	30 min.	Paraffin, 58°C, vacuum on
12	60 min.	Paraffin, 58°C, vacuum on
13	90 min.	Paraffin, 58°C, vacuum on

### NOTE:

To prevent scale build up on the retort walls and processor tubing, it is recommended to flush the systems. This should be done weekly with a weak acid solution (1% acetic acid or .1% hydrochloric acid) followed by a hot water wash.<sup>2</sup>

### WARNING:

Contains formaldehyde, suspected carcinogens. Toxic by inhalation or ingestion. Irritating to eyes, nose, throat, and lungs. Use only with adequate ventilation.

### STORAGE:

Store at room temperature. Do not allow to freeze. Keep container tightly closed when not in use.

### REFERENCES:

1. Herman, G.E., et al., J. Histotech., vol. 11, No. 2 (1988).
2. Lynn, J.A., et al., J. Histotech, vol. 17, No. 2 (1994)
3. J. Histochem. Cytochem., 31, 1435 (1983)

### ORDERING INFORMATION:

Cat. #	Description	Size
21516	Zinc Formalin Fixative	3.75 liters

### TO ORDER

In The U.S. Call: 1(800) 523-2575 • (215) 343-6484  
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