4 % (w/v) PARAFORMALDEHYDE FIXATIVE (SOP-27)

An excellent all around fixative for histology and immunochemistry. This fixative further inactivates rabies virus. This fixative is best used fresh; prepare it no more than 72 h in advance Final molar concentrations of buffers are 23 mM monobasic and 77 mM dibasic.

FORMULAS

	For 1000 ML	For 4000 ML
0.2 M Na PHOSPHATE BUFFER (pH 7.2)	500 ml	2000 ml
sodium phosphate monobasic ($NaH_2PO_4 \cdot H_20$, FW 137.99)	3.17 g	12.68 g
sodium phosphate dibasic (Na_2HPO_4, FW 141.96)	10.93 g	43.72 g
ddH_2O	to 500 ml	to 2000 ml
Alternately, use a Phosphate buffer premix	2 packets	4 packets
2X PARAFORMALDEHYDE SOL'N [8 % (w/v)]	500 ml	2000ml
Paraformaldehyde	40 g	160 g
ddH_2O	to 500 ml	to 2000 ml

PREPARATION

- Heat the paraformaldehyde solution to 60 - 65° C while stirring. Do not overheat, as this may adversely affect immunohistochemical procedures, both by increasing the background as well as decreasing specific staining.
- Reduce heat and add, drop-wise, 1.0 M NaOH; up to about 2.5 ml.
- After the solution clears, filter and add to an equal volume of 0.2 M phosphate buffer.

A concentration of 4 % falls within OSHA guidelines for capture and disposal as organic waste. All formaldehyde waste will be collected and sent to EH&S for disposal as chemical hazardous waste.