**Fixing and Preservation**

To make 10% Formalin: 10 ml Formalin to 90 ml distilled water

To make 5% Formalin: 5 ml Formalin to 95 ml distilled water

Buffer with Borax: 1 tsp to 1 L of 5 – 10% Formalin

Rose Bengal: 1g to 20L of formalin – eye it though, should be like pink lemonade, not cherry juice ☺

Sieved plankton should only take up 25% of container – the rest of jar filled with the 5% formalin

Add a bit of glycerin if using EtOH – just a touch of glycerin keeps the organisms from getting a bit crisp and antennas breaking.

After ~7-10 days: Sieve sample from Formalin (dead sieve) and rinse with water. Change to 70% Ethanol. Do not need to do this if just storing- if storing for long period and not planning to change to EtOH, then you would change out formalin in 6 months- then can be kept for many years.

| [**Taxon**](http://wiki.trin.org.au/Marine/Invertebrates/FixingPreservingSamples?sortcol=0;table=1;up=1#sorted_table)**Sorted ascending**  | [**Fixation**](http://wiki.trin.org.au/Marine/Invertebrates/FixingPreservingSamples?sortcol=1;table=1;up=0#sorted_table) | [**Preservation**](http://wiki.trin.org.au/Marine/Invertebrates/FixingPreservingSamples?sortcol=2;table=1;up=0#sorted_table) | [**Comments**](http://wiki.trin.org.au/Marine/Invertebrates/FixingPreservingSamples?sortcol=3;table=1;up=0#sorted_table) |
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| All others  | 4% formalin  | 70% ethanol  | “default method”  |
| Annelida (Leeches, Oligochaetes, Polychaetes)  | 4% formalin  | 70% ethanol  | Leeches and some polychaete families are easier to identify if anaesthetised, but this is generally impractical in large benthic studies.  |
| Brachiopoda  | 4% formalin  | 70% ethanol  |    |
| Bryozoa (=Ectoprocta)  | 70% ethanol  | 70% ethanol  |    |
| Cnidaria (others)  | 4% formalin  | 70% ethanol  |    |
| Cnidaria Octocorallia  | 70% ethanol  | 70% ethanol  | Formalin will dissolve spicules and render many octocorals unidentifiable.  |
| Cnidaria Scyphozoa  | 4% formalin  | 4% formalin  |    |
| Crustacea  | 4% formalin  | 70% ethanol  |    |
| Ctenophora  | 4% formalin  | 4% formalin  |    |
| Echinodermata  | 70% ethanol  | 70% ethanol  | Formalin will render many echinoderms unidentifiable, especially holothurians.  |
| Echiura  | 4% formalin  | 70% ethanol  | Narcotise (freezing or propylene phenoxytol or MgCl2) if at all possible  |
| Entoprocts  | 4% formalin  | 70% ethanol  |    |
| Mollusca  | 4% formalin  | 70% ethanol  |    |
| Mollusca Opisthobranchia (=nudibranchs)  | 4% formalin  | 70% ethanol  | Narcotise (freezing or propylene phenoxytol or MgCl2) if at all possible; photographs recording colour in life are also very useful  |
| Nemertea  |    |    | Probably unidentifiable unless narcotised (freezing or propylene phenoxytol or MgCl2)  |
| Phoronida  | 4% formalin  | 70% ethanol  |    |
| Platyhelminthes  | 4% formalin  | 70% ethanol  | Fix living specimens on frozen 4% formalin [see safety notes above] or narcotise (freezing or propylene phenoxytol or MgCl2). Otherwise probably unidentifiable.  |
| Porifera  | 70% ethanol  | 70% ethanol  | Formalin will render most sponges unidentifiable  |
| Pycnogonida  | 70% ethanol  | 70% ethanol  |    |
| Sipuncula  | 4% formalin  | 70% ethanol  | Very difficult to identify unless first narcotised (freezing or propylene phenoxytol or MgCl2)  |
| Tunicata  | 4% formalin  | 70% ethanol  |    |