**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 |  |