



## Phenol / Chloroform / Isoamyl alcohol

*Molecular Biology grade for nucleic acid purifications*

### Product Description

|   |        |       |
|---|--------|-------|
| <b>Phenol / Chloroform / Isoamyl alcohol 25:24:1 pH 5.5</b> | N1508A | 100ml |
| Supplied with Buffer Adjuster (10 ml)                       | N1508B | 400ml |

Storage: Store cold. Warm to room temperature before opening.

### Technical Information

**Phenol Chloroform Isoamyl Alcohol pH 5.5** is used in the extraction of RNA and supplied with Buffer Adjuster to attain requisite pH.

To attain pH 8.0 use approximately 45microlitres of Tris buffer adjuster with 1ml of **Phenol Chloroform Isoamyl Alcohol**.

#### Determining the pH of Water Saturated-Phenol Solutions

Outlined below are two alternative methods for measuring pH of Phenol.Molecular Biology Water Saturated Phenol solutions (including phenol: chloroform: IAA) are used in the extraction of DNA and RNA and are pH dependent. They are supplied with an amount of Saturated Tris-buffer to raise pH levels.

Depending upon the pH of the phenol, DNA will partition into either the organic phase or the aqueous phase. Thus, it is necessary to accurately determine the pH of the phenol solutions. Accurate pH measurements of the organic phenol and phenol: chloroform can however, be difficult to achieve.

Standard reference electrodes measure the liquid junction potential between the electrodes potassium chloride filling solution and the sample. Organics such as phenol and chloroform have very low dielectric constants compared to water. A very large liquid junction potential can cause problems such as pH drift, long stabilisation times and damage to the pH electrode. Because of this, pH paper has often been used to measure the pH of Phenol solutions, however, phenol destroys the indicator within the pH paper, bleaching the paper, so measurement needs to be rapid and inaccurate pH measurement is inevitable.

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To measure the pH of saturated phenol, it is necessary to solubilise the phenol in aqueous medium so the following methods lend themselves to determining the pH of phenol solutions.

**For phenol: chloroform: IAA or Acid phenol: chloroform Solutions**

Mix 2 ml of the phenol organic phase with 8ml of Methanol. Then add 10ml of purified water and measure the pH of the entire solution using a reference electrode. (pH Probe).

**For Water Saturated Phenols**

Mix 2 ml of the phenol organic phase with 5ml of Methanol. Then add 13ml of purified water and measure the pH of the entire solution using a reference electrode. (pH Probe).

This can be used to determine the quantity of Saturated Tris-buffer to use in order to adjust the pH of solution prior to use or aliquoting into 1 ml micro-tubes for use in extraction.

## Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>.

Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : Uptima / Interchim; Hotline : +33(0)4 70 03 73 06

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