Safetygram

NCI-Frederick

ISM-199 Laboratory Personnel February 2012

Bouin's Fixative

Bouin's Fixative is used for its ability to preserve certain tissues and its compatibility with trichrome stains. In particular, it is excellent for its preservation of nuclei and chromosomes. Bouin's Fixative is composed of the following constituents; buffered formaldehyde, acetic acid, and picric acid. Picric acid and formaldehyde are the most dangerous components.

Picric acid is highly explosive when dry. It must remain wet with a layer of liquid on it at all times. Do not mix picric acid or any solutions containing picric acid with strong oxidizers, strong alkalis, acids, phenols or urea. These solutions should be kept at room temperature and not frozen.

Formaldehyde is dangerous due to the inhalation and contact hazards associated with it. Formaldehyde inhalation may lead to congestion and/or shortness of breath. In large doses, inhalation of formaldehyde has been shown to be a possible carcinogen. Frequent contact with formaldehyde can lead to drying or scaling of the skin. It is possible to develop a sensitized reaction to formaldehyde. If ingested, formaldehyde can lead to serious damage to the throat, intestines and stomach.

For more detailed information on the dangers associated with Bouin's Fixative consult the following location for a MSDS,
http://web.ncifcrf.gov/rtp/LASP/intra/forms/msds/msds_bouins-fixative.pdf

If you have unwanted Bouin's Fixative for disposal, please call X5718 or email chemwaste@mail.ncifcrf.gov.

Please consider using less hazardous substitutes for Bouin's Fixative such as modified Davidson's Fixative or Bouin's Fixative Substitute that are picric acid free. To review one of these picric acid and formaldehyde free substitutes, please see http://www.cancerdiagnostics.com/UploadDocuments/464ebfa5-c9d4-4633-8c00-a29984e0b700.pdf .