



WORK INSTRUCTION FOR ETHIDIUMBROMIDE

Theme:
Work instruction
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	Powder		Solution
H302	Harmful if swallowed (cat. 4)	H331	Toxic if inhaled (cat. 3)
H330	Fatal if inhaled (cat. 2)	H341	Suspected of causing genetic defects
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Ethidium bromide is highly mutagenic. Because of its mutagenic character ethidium bromide is assumed to be carcinogenic / teratogenic.

PURCHASE

- Ethidium bromide should only be purchased as a solution, not as powder.
- There are safer alternatives to ethidium bromide for staining gels. See examples at [Sigma-Aldrich](#), Keyword: Nancy-520.

USE

- All work with ethidium bromide concentration $\geq 1\%$ **will take place in a fume cupboard.**
- Work with ethidium bromide concentration $<1\%$ **shall be performed in confined, secluded area with good ventilation.**
- In case of spills, clean thoroughly with a solution of 20 mL of 5% hypophosphoric acid and 4.2 g Na-nitrite and 300 ml of water (see guidelines from [Towson University](#)). Paper waste is disposed of as problematic waste.
- Test for contamination with portable UV lamp.
- Remove gloves when leaving the work area.
- Pregnant women should **not** work with concentrated solutions ($> 1\%$). See also separate work instruction for pregnant and breastfeeding women.

SAFETY EQUIPMENT

- Always wear a lab coat and gloves of nitrile (minimum thickness 0,12 mm), the glove supplier at UiB, Vicoria AS, sells the glove Touch N Tuff.
- Eye wash bottle must be available in rooms without sink.

STORAGE

- Chemicals that are in regular use must be [stored](#) in approved chemical cupboards in the laboratory. Chemicals that are not in daily use must be clearly marked in accordance with the [labelling regulations](#) and kept in lockable storage rooms designed for the type of chemical in question. It should be noted that some chemicals cannot be stored [together](#).

WASTE

- Follow the [waste routines](#) at the UiB.
- Liquide waste / buffer must be sent as hazardous waste. Use waste number 7135.
- Gels, remains of liquid / buffer, waste paper, gloves and combustible disposable equipment should be disposed of as problematic waste (the yellow boxes).

GENERAL

Use risk assessment to consider the use of clean zone / recovery zone (clean equipment / dirty equipment). UiB is working to phase out of the use of EtBr. Today there are several products on the market that are just as good without being equally carcinogenic. Even if these new products not yet are classified as hazardous, one should still treat those with caution. This is because we have not yet identified the long-term effects of the new products.