

# BTX Screening, Benzene, Toluene,

## Xylene

### General:

Most aromatic hydrocarbon derivatives can be found with hundreds of substances in tar (produced during carbonization of the hard coal) and are technically processed by this method. Depending on the temperature, light oils are formed during the fractionated distillation such as benzene derivatives, toluene, xylene, pyridine, aniline and others, for the medium oils the most important agents are naphthalene, phenol and others, the heavy oils are mainly acenaphthene and fluorene. The BTX examination tests benzene, benzene homologues, toluene and m-xylene. These derivatives form base materials for industrial solvents, are constituents of gasoline or car exhaust fumes, can be found in cigarette smoke and in urine as phenol and muconic acid or as hippuric acid and methyl hippuric acid. Benzene is classified as a carcinogenic substance.

Indication: Monitoring of industrial workers, suspicion of intoxication

Material: 3 ml EDTA blood in headspace vial

TAT: 10-14 days\*

Method: GCMS

Preanalytics: How to transfer EDTA blood into headspace vial: blood collection by vein puncture in 2.7 ml EDTA-blood monovette (red seal). If possible no disinfection. Where this is imperative, indicate disinfectant. Fill up completely and mix monovette thoroughly. Inject EDTA blood from blood monovette through the membrane completely into the headspace vial. Indicate volumes in case partial quantities are used. Mark headspace vial, do not use labels! Head-space vials can be requested in the laboratory. Do not freeze.

**Benzene:** Ref. Range - < 5.0 ug/l

**Ethyl Benzene:** Ref. Range - < 2.0 ug/l

**Toulene:** Ref. Range - < 5.0 ug/l

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>