

# Btex in an urban setting

Literature, Russian Literature



Running head: BTEX in an urban setting Introduction Generally, BTEX is an abbreviation for Benzene, Toluene, Ethylbenzene, and Xylenes components. These compounds are organic and volatile. They are commonly found in petroleum derivatives, for example gasoline. These components are useful and at the same time harmful to the environment and human coexistence. This is because they have adverse side effects on human health. Effects of these chemicals are adverse in urban areas because substances that produce them are frequently accessed. This is due to frequency use of products such as petroleum and gasoline among others. Furthermore, the chemicals are also widely used in the urban setting for several purposes. The components of BTEX have effects on both human and environment. However, the effects are more serious on human since the environmental effects also affects human indirectly. This is because human resides in the environment and uses most of the resources that BTEX has adverse effects on. For instance BTEX contaminates water and water is life to human. It also contaminates soils and this is one of the most important resources for human especially in agricultural production. However, these components have different effects on human depending on the degree of concentration. Furthermore, they have both long-term and short-term effects on human life.

Human are greatly exposed to effects of BTEX because its components are encountered by man regularly. There are several short-term effects of these components. They include; respiratory effects especially nose and eye irritation due to inhalation. It may also cause problems to the central nervous system and this may further lead to dizziness, loss of coordination, headache

and tiredness. Additionally, prolonged exposure to the chemicals may lead to other complications in the blood system, liver, and kidneys. However, these are the combined effects of the acronym, but the individual chemicals have other effects on human life.

There are other individual effects that these chemicals cause the human life, for instance, benzene. Long-term exposure to benzene may lead to production of phenol after high concentration of the chemical in fatty tissues of the blood stream. This chemical produced is more carcinogenic than benzene hence harmful to human life. Furthermore, high exposure leads to fatality. Therefore, benzene is poisonous and toxic. Individuals have to be careful when exposed substances that produce the chemical. This is because even small quantities of the chemicals are harmful to human health.

Furthermore, toluene causes fatigue and drowsiness. It also causes mucous membrane irritation and dizziness when inhaled in conjunction with xylenes. Coordination may also reduce due to high concentration of toluene and xylene. Basically, toluene concentration affects the nervous system and the brain. However, toluene and xylene causes brain damage. On the other hand, ethylbenzene damages the liver and causes cancer too. It also damages the kidneys and causes lung cancer due to high concentration. It is also harmful to pregnant mothers and may cause birth defects.

### Conclusion

Basically, BTEX is helpful to human in several ways. However, it is also harmful to human health and in fact it has adverse effects on human life quality. This is because it leads to several severe health problems that compromises quality of life. Therefore, though it is useful, but has more side

effects than its benefits, human ought to avoid exposure to these chemicals and any other activities or substances that produce them.

#### References

Human health and toxicology. Submitted article/ document.