Acute toxicity test of mercuric chloride on black fish

[a]Poorkhabbaz A, [b]Pourkhabbaz H

Qanat is a water management system used to provide a reliable supply of water to human settlements or for irrigation in arid and semi-arid climates; the technology is known to have developed in ancient Persia and then spread to other cultures. Qanats are up to 3000 years old artificial sub-horizontal underground water channels, 5 to 80 km long. The main objective of the present investigation was to utilise static test for examining the acute toxicity of mercuric chloride ($HgCl_2$) to a native fish, Capoeta fusca, from Qanats. For this purpose, ten different concentrations in three-replicate were chosen. For each treatment, 10 fish specimens were used. Result showed that the mortality is decreasing as time increases, so that most of the mortality occurred during the first 24 h. The LC50 value at 72 h and 96 h were 0.539 mg/L.

Key words: Capoeta fusca ; lethal toxicity; mercuric chloride; Qanat; static bioassay

[a] *Department of Environmental Sciences, Birjand University, Birjand, Iran (Apourkhabbaz@yahoo.com)*
[b] *Department of Environmental Sciences, Behbehan University, Behbehan, Iran*