

**POND LAB****Nitrite (NO₂⁻) (40 tests)**

The toxic waste Ammonia secreted by the living organisms in the pond or aquarium is broken down by Nitrosomonas Sp. bacteria into nitrite, as part of the biological filtration process. Nitrite itself is not as toxic as ammonia but is still very detrimental to the health of the fish. The nitrite is converted into Nitrate by Nitrobacter Sp. bacteria.

As well as irritating the surfaces and gills of the fish the main factor leading to nitrite poisoning is the corruption of the structure of haemoglobin, the oxygen carrying agent of blood. Nitrite causes the addition of a methyl group to haemoglobin, forming methhaemoglobin which cannot carry oxygen, thus 'asphyxiating' the fish. This disease, called meth-haemoglobinaemia can be recognised as the fishes blood turns from red to brown.

Check the nitrite concentration of your freshwater or marine aquarium using an Nitrite Test Kit or for ponds use the Pond Check Nitrite Test Kit. The nitrite level of the water should always be zero. (Unless just starting up)

The appearance of any colour in this test indicates a warning that the filter system is not working perfectly.