



NITRATE REMOVAL SYSTEM



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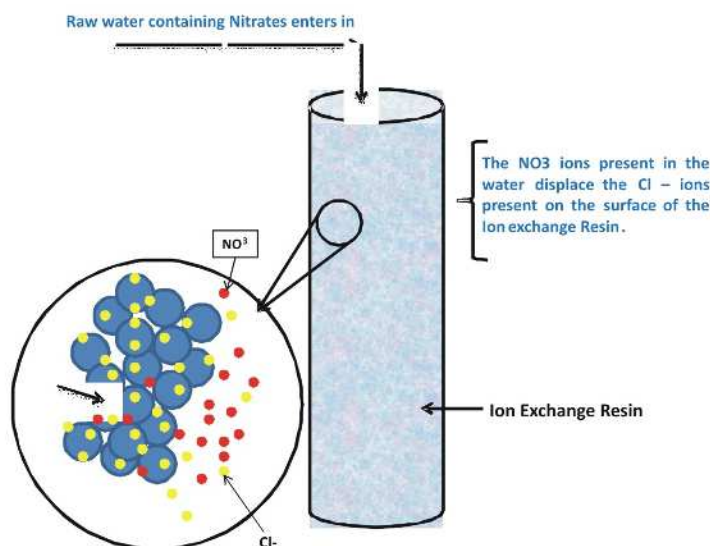
NITRATE REMOVAL

RITE WATER NITRATE REMOVAL SYSTEM

The major sources of nitrates in drinking water are runoff from fertilizer use; leakage from septic tanks, sewage; and erosion of natural deposits. Nitrates dissolve easily in water and can move readily through soil into the drinking water source. Once nitrates enter the body they are converted into nitrites which reduce the oxygen carrying capacity of Hemoglobin. In infants nitrites can cause Blue Baby Syndrome. Hence removal of Nitrates from water is very important.

Simple process of filtration is not enough to remove the Nitrates from water. Processes like Reverse Osmosis can remove Nitrates very efficiently from water. However this system is suitable for drinking water purposes. However for Large scale purification of water and Nitrate removal Systems like Ion exchange are most suitable. These are more preferred in an Industrial set up as they are regenerable.

Ion Exchange process taking place within the Resin Vessel



NITRATE REMOVAL SYSTEM WORKING:

Rite Water's Nitrate removal system offers a perfect solution to this problem. Nitrate removal system works on the phenomena of Ion Exchange. This system uses a polymer resin which has Chloride ions adhered to its surface. When the water containing Nitrates passes over the resin the Nitrate ions get adsorbed onto the surface and Chloride ions are released into the water. Along with the nitrate ions, Sulphate ions also get removed in this system due to the affinity of the sulphate ions to the resin.

The recharging of the Resin needs to be done using concentrated Brine Solution. During regeneration the Chloride from the salt displaces the Nitrate and Sulphate ions. The regeneration frequency depends on the concentration of the Nitrates and Sulphates in water as well as on the volume of the resin.