

Just Water Inc.

## **Hydromatic+No3™**

Nitrates can be found in water supplies that are in areas where there are heavy use of fertilizers. Nitrates can cause Methemoglobinemia a.k.a. blue baby syndrom. This is a serious condition in young infants and new born animals where the oxygen carrying capacity of the blood is reduced.

Because of their small chemical size, Nitrates are difficult to remove through the process of reverse osmosis drinking water units. Typically these systems operate at a household pressure of about 50 PSI and remove less than 80% of the nitrates. Commercial and whole house reverse osmosis units operating at 150 PSI or more will remove 92% or more.

In applications where higher percentages of nitrate removal are required or where total house treatment is required for a lower cost than whole house reverse osmosis, ion exchange is the best answer.

In the ion exchange process, water containing nitrates is passed through a modified water softener. This special softener contains a resin that is manufactured solely for the purpose of removing nitrates and sulfates in the water. As they are removed they are replaced (exchanged) with harmless chloride. The source of chloride is from the salt used to regenerate the unit which can be either traditional softener salt - sodium CHLORIDE or a special salt called potassium CHLORIDE. Rather than waste either the sodium or the potassium we place the special nitrate resin on top of regular softening resin and along with removing the nitrates and sulfates we also soften the water with the same amount of salt being used. We get a free bonus of softening.

Of particular importance is the proper selection of the nitrate removal resin. It is specially formulated to cling tightly to the nitrates and sulfates until regeneration is required and not let them release into the water in excess amounts --- a process called "dumping". As long as the equipment is functioning, safety is virtually guaranteed. A meter control on the unit is very important to insure that regeneration is done even when unexpected excess water use occurs.

- The EPA has approved ion exchange and reverse osmosis treatment methods for removing nitrates/nitrites. The maximum contaminant level (MCL) is 10 parts per million (ppm) nitrate as nitrogen (NO<sub>3</sub> as N). A laboratory may also choose to express nitrate as nitrate (NO<sub>3</sub> as NO<sub>3</sub>) in the water analysis, and in this case, the EPA MCL is 44.2 ppm (10 ppm as N is equivalent to 44.2 ppm as NO<sub>3</sub>).
- Selective Nitrate resin is NSF certification under NSF Standard 61 for potable water municipal installations as a process media.
- Unlike Most Water Softeners The HM+no3r Is designed to soften your hard water as well as remove nitrates.
- The whole house HM+no3r provides crystal clear, soft, nitrate safe drinking water at every tap in the house!
- Removes High Levels of Nitrates!
- Nitrate levels reduced well below the EPA standard and in most cases non-detectable!
- Removes up to 40 grains per gallon hardness (684 mg/l)!
- Prevents Staining on Bathroom & Kitchen Fixtures!
- Prevents Staining on Dishes, Dishwasher, Washing Machine & Clothes!
- Prevents Hard Water Scale!
- Higher Quality Drinking Water!
- Simple to Install - Connects to the Main Supply Line of your House!
- Significantly Reduces Soap & Cleaning Product Consumption!
- Provides Excellent Grooming & Cosmetic Benefits!
- Reduces Water Heating Costs!
- Prolongs the Life of Water Heaters - Icemakers - Dishwashers - Coffeemakers - Plumbing Fixtures!
- Keeps Glassware & Silverware Sparkling!
- Household Cleaning & Maintenance is Reduced!
- Clothes are Brighter & Cleaner!
- Reduces Existing Scale Buildup!
- Attractive Heavy Duty Stainless Steel Cover Protects Against Harmful UV Rays!