DOMESTIC FILTER FOR DE-FLUORIDATION OF WATER

The developed technology is domestic type adsorption based multi stage water filtration unit. The process comprised of activated alumina (AA), ferrite impregnated (FIA) active alumina and silver impregnated activated carbon (SIAC). The developed filtration unit could be promising for commercialization. The developed unit has a very potential application the region where fluoride concentration is higher in the ground or surface water. Approximate cost of the defluoridation unit: $32/- (SS make); $20/- (Polypropylene make).

SUMMARY APPLICATION:

Various School, Colleges
Govt Offices
Health Centre in Rural fluoride affected areas

COMPARATIVE ADVANTAGES:

Effective reduction of Fluoride concentration from ~ 5 ppm to below permissible limit (~1.5 ppm)
Simultaneously useful for bacterial remediation since standard SIAC is used
No electricity
Flow rate: ~ 5-6 L / hour
Adsorbent life (average): ~2000 L
Storage capacity: ~15 L
Adsorbent replacement cost: ~ Rs. 10/-
Cost of filtered water is cent 0.06/ day which is very less compared to a daily labour's wage

Technology is ready to be licensed.



