Filter Flow Technology, Inc.

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ChemSorb® Filter Granules

DESCRIPTION:

High purity, low sodium, natural, zeolite, mineral (14 x 40 mesh) that is classified as GRAS (Generally Recognized As Safe) under 21CFR Part 182.2729 and 40 CFR Part 180.1001 with ANSI/NSF Standard 61 Listing. The material is mined, crushed, dried and double-screen, sized to produce a high quality filter media with Uniformity Coefficient (D_{60}/D_{10}) of 1.7 having high through-put capacity at low differential pressure. The alumino-silicate, crystal, mineral material has surface micro-mineral projections with 0.25 to 10 µm spacing that effectively trap suspended solids in water streams (see Figure 1 & 2). The surface, micro-projections, together with the high surface area makes this material an ideal, water filtration media. The material is mineralogically and thermally stabile to 500^{O}C. Some advantages of *ChemSorb® Filter Granules* versus conventional sand, anthracite and multimedia filter media are listed below.

- *Higher filtration capacity without additional capital costs.*
- *Reduced backwash frequency reduces costs and saves labor.*
- *High flow rate capacity - gravity flow (4 gpm/ft^2) & pressure vessels (12-18 gpm/ft^2).*
- *Linear/near linear, head loss curve with superior, depth removal of suspended solids.*
- *Superior filtration rating (5 micron nominal) translates to enhanced water quality.*

PHYSICAL PROPERTIES:

Bulk Density	55 lbs. per cubic foot
Mesh Size	14 x 40
Color	Light green
Surface Area	Avg. 24.9 m^2/g
Surface Absorption	Hydrophilic
Thermal Stability	Stable to 500° C
Filtration Nominal Rating	<5µ

APPLICATIONS:

*ChemSorb*ò *Filter Granules* are used as a water/liquid, filter bed (or tank) material in lieu of sand/anthracite, pecan shells or other, coarse filtration material to efficiently remove suspended solids and fine turbidity particles. The filter granules physically filter and trap the suspended solids. In addition, the granules remove a wide range of colloidal and soluble, inorganic metallic, contaminants by surface sorption, chemical-binding, charge-neutralization, coagulation, reactions and/or ionic, ion-exchange phenomena.

- Replacement media for sand/anthracite

  Gravity filters - 4 gpm/ft^2 design specification

  Pressure vessels-12-18 gpm/ft^2 design specification

- *High performance, gravity flow beds for drinking water plants*
- *Industrial surface water pumping stations and cooling tower filters.*
- *Polishing filter for industrial wastewater treatment.*

AVAILABILITY:

50 lb. Bags; Super-Sacks; or Truck Load Quantities. Allow 10-14 days for delivery.

Figure 1. SEM photomicrograph of a *ChemSorb*$^{\grave{O}}$ *Filter Granules* showing micro-mineral, projections on the suface. [Note the 10µm calibration bar at the upper left]. The micro-projects effectively trap suspended solids in water.

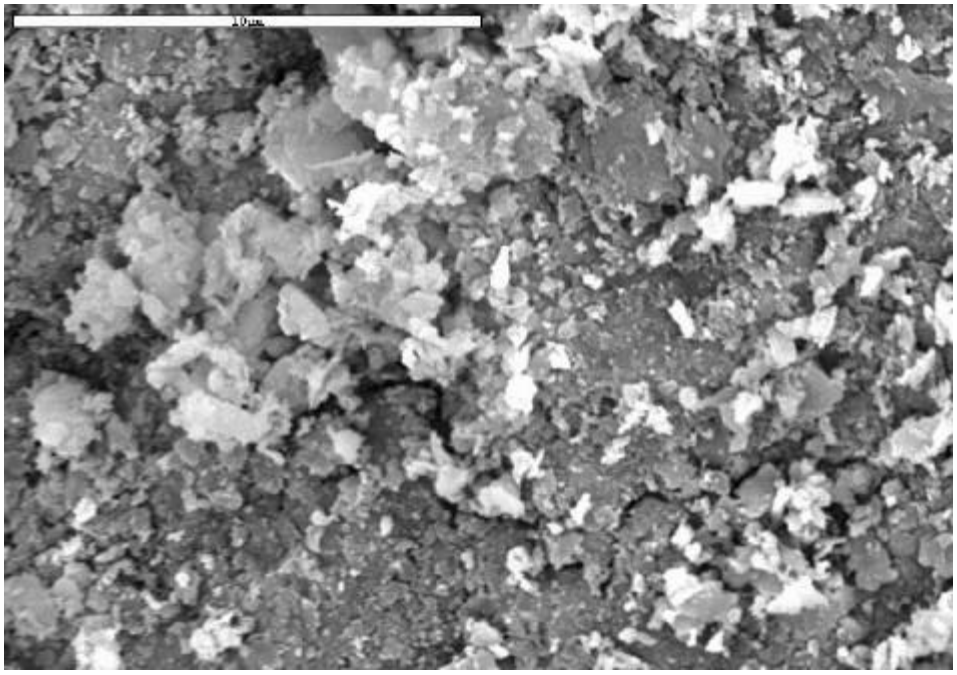

FIGURE 2 – High magnification (SEM) of a *ChemSorb*$^{\grave{O}}$ *Filter Granule* zshowing detail of the mineral, micro-projections. [Note the calibration bar at the upper left].