CAMERON GREAT LAKES, INC.

MOLECULAR FILTRATION SPECIALISTS

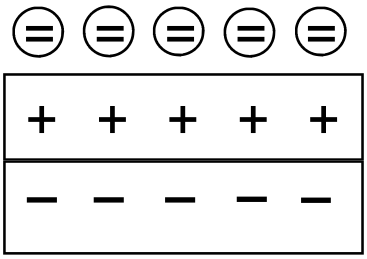
CGL OMZ*

OMZ* Organo Sorbant is a patented, modified alumino silicate that is designed to absorb anions such as chromate, selenate, sulfate, hydrocarbons (such as benzene, toluene, and xylene), heavy metals (such as lead and cadmium), and various petroleum products (such as oil) from aqueous waste streams.

APPLICATIONS	CONTAMINANTS REMOVED
Groundwater	diesel fuel, gasoline, oils, PCB's BTX, heavy metals, perchloroethylene, trihalomethanes
Manufacturing Process Water	oil, grease
Paint Stripping	solvents, heavy metals
Electroplating	heavy metals
Wood Treating	pentachlorophenol, creosote
Produced water from oil production wells	oil, diesel fuels

How OMZ Works

The basic concept involves imparting hydrophobicity to the base alumino silicate. To do this, the alumino silicate substrate is coated with a strongly bound hydrophobic compound. Other hydrophobic chemicals, such as hydrocarbons, prefer to combine with the surface-modified particles rather than maintaining suspension in water. The treated alumino silicate also absorbs inorganic oxyanions such as chromate, selenate and sulfate while maintaining its natural sorbtion capacity for heavy metals. The diagram below illustrates the concept of how OMZ works. The base media of OMZ is CGL type Z100, an alumino silicate with an exceptional cation exchange capacity. The modifying agent is HDTMA - a strong cation that replaces other cations on the surface of Z1OO producing a surface anion exchanger.



⇒ **Anions are absorbed on outer coating**

⇒ **HDTMA coating (positively charged)**

⇒ **Cations are absorbed on the base**

*U.S. Patent Nos. 5278112, 5314852, and other patents pending

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Why OMZ is Superior to Tailored Clays

Tailored clays have been used successfully for a number of years to adsorb organic contaminants. OMZ, because it is not a clay medium but an alumino silicate, is a better alternative. When water passes through a clay medium, the clay particles expand reducing the interparticle space and lowering the permeability of the clay medium. Indeed, the tailoring process itself, due to coagulation of the tailoring agent, may cause a further reduction of permeability. The OMZ alumino silicate is a large network of open channelways similar to a sponge with uniform holes and a high cation exchange capacity. Unlike clay particles, this structure is rigid and stable (even under aqueous conditions) allowing more contaminants to be adsorbed in its open channelways.

DESCRIPTION

Buff or off-white granules of an alumino-silicate base modified with a quaternary ammonia compound. Standard particle sizes are 6 x 14 mesh or 4 x 6 mesh.

STANDARD PACKAGING

- 100 Pound Fiber Drums
- 400 Pound Fiber Drums
- 80 Pound Bags
- 2000 Pound Super Sacks

PROPERTIES OF OMZ

Cation exchange capacity	2.20 meq/g
Bulk density (treated)	55 lbs/cu ft.
Hardness Mohs scale	5.1
Pore size	4.OA
Thermal stability	1202^0 F
Specific surface area	40 sq. m/g
Crushing strength	2500 lbs/sq. in

OMZ can be effective in the removal of the following contaminants from waste streams:

ORGANIC CONTAMINANTS

anthracene
benzene
chloroform
creosote
ethyl benzene
diesel fuel
flourene
fulvic acids
grease
humic acids
(TOC's)
indeno pyrene
naphtalene
non-ionic surfactants
penenthrene
oil
pentachlorophenol
perchloroethylene
pyrene
solvents
toulene
total organic carbons
trihalomethane

HEAVY METALS

aluminum
antimony
arsenic
barium
cadmium
calcium
chromium
cobalt
copper
iron
lead
magnesium
manganese
mercury
nickel
selenium
silver
tin
zinc

Information herein is accurate to the best of our knowledge. Suggestions are made without warranty or guarantee of results. Before using, buyer should determine the siutability of the product for its intended use, and buyer assumes the risk and liability in connection therewith. OMZ presents no health hazards when shipped, stored, and handled properly. Please refer to our Material Safety Data Sheet for more complete information.

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