



Actiguard AAFS50

The Best Choice for Arsenic Removal




imagination materialized



Actiguard AAFS50 Arsenic Removal

The right choice to achieve less than five ppb of arsenic.

- Simple Design: Flow-through unit with 5-8 minute dwell time.
- Low Cost Media: Economical per-unit cost.
- No Disposal Concerns: Spent material is TCLP approved and landfillable.
- No Pressure Drop: Granular material will not degrade over time, causing pressure drop.
- Commercially Available: Produced in large scale North American production facility, owned by one of the largest aluminum companies in the world.
-  Certified to ANSI NSF61.



Actiguard

The Best Choice for Arsenic Removal

AAFS50

For 25 years, activated alumina has been the preferred media for arsenic removal from water. As an industry leader, Alcan Chemicals has developed a new, improved grade—Actiguard AAFS50—with over five times the arsenic adsorption capacity of standard activated alumina products!

By taking an already successful media and using a patented, proprietary process, Alcan has produced Actiguard AAFS50—the easiest and most cost-effective media available today. Tests on systems already in the field have yielded results in which arsenic levels of over 1200 ppb have been reduced to less than 5 ppb.

Historically, regeneration was the

accepted method of making activated alumina systems cost-effective. However, regeneration has some drawbacks, including the handling and storage of chemicals, additional processing steps, and the disposal of the regeneration effluent. In addition, regeneration is not applicable to point-of-use (POU) systems. The high adsorption capability of Actiguard AAFS50 makes it cost-effective for one-time use and disposal. The material has met U.S. EPA leachability standards and can be landfilled. Actiguard AAFS50 is a robust, granular material that is easy to handle and will not break down during use, causing fouling or pressure drop. It is effective on both

Arsenic (III) and Arsenic (V).

Low media cost, coupled with the simple flow-through design (5-8 minute EBCT), makes Actiguard AAFS50 the preferred media for arsenic removal in most situations.

The performance of activated alumina and Actiguard AAFS50 in any application will depend on the water used. The data provided herein is only for guideline purposes. Users are advised to check the performance of Alcan products prior to their adoption into any system.

Actiguard AAFS50

Activated Aluminas

Alcan Chemicals' Actiguard AAFS50 Activated Alumina is specifically designed to remove arsenic from potable water.

Actiguard AAFS50 is activated alumina promoted with a proprietary additive. This combination has been engineered for enhanced arsenic removal from water. AAFS50 has shown arsenic capacities of up to five times greater than unpromoted activated alumina.

Arsenic commonly occurs in two forms: As(V) (arsenate) and As(III) (arsenite). Maximum arsenic capacity is achieved when dealing with As(V).

AAFS50's capacity for As(III) adsorption is about 60%-70% its capacity for As(V). Oxidation is recommended to assist with As(III) removal, when possible. For example, simple chlorination may achieve 30%-40% higher As(III) capacities than non-oxidized systems.

Actiguard AAFS50 can be effective at a wide range of pH levels depending on the competing ions present. Where high levels of silica are present, along with a pH level higher than 7.0, an adjustment may be necessary for optimum results.

The performance of any adsorbent is dependent on the water being treated. The data provided is for guideline purposes only. Users are advised to check performance prior to their adoption into a system.

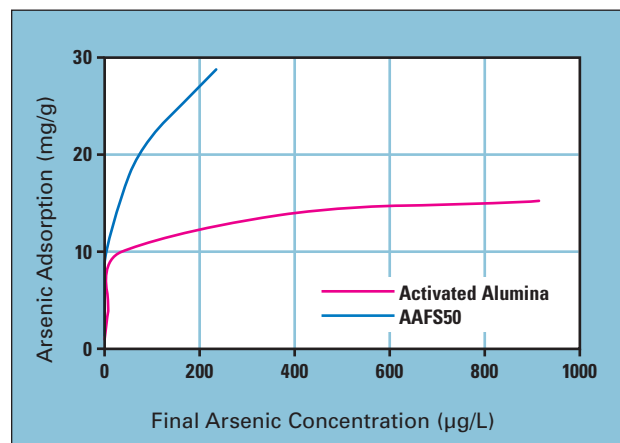
Available in granular form in sizes 28 x 48 mesh, with other sizes being supplied on special request.

Packaged in 907 kg (2,000 lb.) super bags, 158 kg (350 lb.), 45 kg (100 lb.), and 22 kg (50 lb.) boxes. Other forms of packaging can be considered on special request.

NSF Certified to ANSI NSF61.

Passed U.S. EPA TCLP (Total Characteristic Leaching Procedure)

Comparison Arsenic Adsorption Isotherms



CHEMICAL ANALYSIS of Actiguard AAFS50

Constituents	Weight %
Al ₂ O ₃ + proprietary additive	83
Silicon as SiO ₂	0.020
Titanium as TiO ₂	0.002
Loss on Ignition	17

PHYSICAL PROPERTIES of Actiguard AAFS50

Bulk Density (g/cm ³)	0.91
BET Area (m ² /g)	220
Attrition (%)	0.3

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