



MIDAS[®] ODOR CONTROL MEDIA (OCM) FREQUENTLY ASKED QUESTIONS

What is Midas[®] OCM?

Midas[®] OCM is a custom manufactured, carbon-based odor control media produced from a high purity bituminous coal. This patented (U.S. Patent No. 6,858,192) media has the capability to remove H₂S from vapor streams and reducing fugitive odors. Midas OCM effectively removes odors in systems that have low (1 ppm), to high, (200 ppm) concentrations of H₂S. It has 3 to 6 times the capacity of other odor control medias such as water washed carbon. Also, Midas OCM can tolerate high levels of VOCs and CO₂.

How does Midas OCM work?

Midas OCM can be loaded into your existing scrubber or supplied with a new equipment package. The air stream is passed through the bed and the media removes the H₂S and other organic odors. The H₂S is not converted to sulfuric acid (H₂SO₄) like other medias but is converted directly to sulfur which is adsorbed by the carbon. The conversion to sulfur causes the capacity of the Midas OCM to be considerably higher than other medias.

You mention that Midas OCM does not convert H₂S to H₂SO₄, why should I be concerned about this?

Odor control medias have typically converted the H₂S to H₂SO₄ during the removal of H₂S from the vaporstream. When the spent media is removed, it becomes a hazardous material with

a pH less than 2.0. Since these medias may require water washing to be "renewed". The resulting wastestream has a low pH (< 2.0) that can cause equipment corrosion problems and creates disposal issues.

What percentage removal efficiency can we get from Midas OCM?

It is typical to get above 99% removal of H₂S in the media.

What range of H₂S can Midas OCM be applied over?

Midas OCM is normally placed in applications where the average H₂S concentrations are between 1 ppm to 25 ppm. But Midas OCM can easily handle average and spike concentrations into the hundreds of ppm.

To be effective, Midas OCM requires that oxygen and moisture be present in the vapor stream being treated. The minimum acceptable oxygen concentration is 0.5 vol% and should be at least 10 times the combined concentration of H₂S and other reduced sulfur compounds.



Optimum performance can be obtained when the relative humidity of the gas being treated always ranges between 60 and 95%. Pre-humidification of Midas® OCM immediately prior to it being placed into service assures full performance from initial system startup.

Midas OCM should NOT be used in applications where water condensation (free water) occurs. For example, this includes high humidity applications where temperature fluctuations cause the vapor temperature to drop below its dew point, causing water to condense in the carbon bed. The exposure of Midas OCM to condensed water can adversely effect performance.

What form does it come in?

The media is available in pelletized form and can be loaded into your existing deep bed adsorber. The pellets are 4 mm x 6 mm. Please ask for a Midas OCM product bulletin for complete details.

What is the H₂S capacity I can expect?

ASTM testing methods have shown that Midas OCM can remove up 0.3 grams of H₂S per cc of media. This is 4 times the removal capacity of the closet competitive media used for H₂S removal. Evoqua guarantees the level of H₂S removal.

I've used other Carbons for odor control before, why should I switch to Midas OCM?

Midas OCM offers a cost effective media that does not require frequent changeouts or time consuming washing processes. In addition to longer life, Midas OCM eliminates some of the other concerns of carbon systems such as high pressure drop, hazardous waste handling issues, and possible bed fires.

How does Midas OCM work on other odorous compounds besides H₂S?

Midas OCM performs very well on other odorous compounds including mercaptans. Midas OCM's performance meets or exceeds those of most virgin coal and coconut based carbons.

There is a lot of concern about fires in carbon beds, has Midas OCM had this problem?

Since Midas OCM is not impregnated with any caustic or other chemicals it is as safe to use as virgin carbon. Midas OCM has an extremely high ignition temperature.

How is Midas OCM disposed of when it is spent?

Since Midas OCM adsorbs H₂S as sulfur, the pH of the spent material will be above 4.0. Therefore, it can be taken to your local landfill as a nonhazardous waste. Other odor control medias often have a low pH at exhaustion due to the conversion of H₂S to H₂SO₄.



Can Evoqua help remove and replace the carbon when it is spent?

Evoqua has specially trained crews and equipment that can provide supervision or complete changeout services at your facility.

I have heard that Evoqua guarantees the performance of this material?

Guarantees are available. More details can be provided by your local Evoqua Sales Engineer.

Where can I get Midas OCM?

Midas OCM is available from Evoqua Environmental Services. Your local Evoqua Sales Representative can provide more details on the Midas OCM program.

Why has The United States Patent Office issued a Patent for Midas OCM?

Midas OCM is a unique odor control media that has made carbon both easy and safe to use for odor control applications. Midas OCM combines both high H₂S capacity along with superior organic odor removal that out performs any other odor control media on the market today. The U.S. Patent office has issued a patent (No. 6,858,192) based on this significant advancement in odor control technology.



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