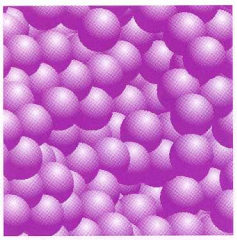

# ProGuard 200 Media

Designed to remove toxic, corrosive and odorous gases from air streams. Typically used in HVAC systems at refineries, steel mills, wastewater treatment plants, hospitals, museums, commercial buildings, and labs.

## MEDIA COMPOSITION

**ProGuard 200** chemisorbent media is a round porous pellet manufactured from activated alumina, water and impregnated with potassium permanganate. This uniquely designed pellet has potassium permanganate ($KMnO_4$) uniformly distributed throughout for maximum availability for reaction with target contaminants.

## MEDIA ADVANTAGES

- *Low dust*
- *Very effective for a broad range of chemicals (contaminants)*
- *Nontoxic and nonhazardous*
- *Does not support bacterial growth*
- *Easy disposal*

## TARGET CONTAMINANTS AND THE REMOVAL PROCESS

Contaminants are removed by adsorption, absorption and chemical reaction. Odorous gases penetrate into the core where they react with the $KMnO_4$ and are converted into safe, non-odorous byproducts. Many become solids and are captured on the pellet. Common contaminants include: hydrogen sulfide, sulfur dioxide, nitric oxide, formaldehyde.

## ADDITIONAL MEDIA

ProMark provides a range of media that covers all gas phase filtration requirements. **ProGuard 100** is designed for ethylene and general odor control. **ProGuard 400** removes chlorine gas. **ProGuard 700** is activated coal based carbon for general odor control. **ProGuard 800** is designed for ammonia and other basic pH gases; **ProGuard 900** controls acid gases. The right media will be selected to address the specific need based upon contaminant gases present, concentration levels, airflow requirements, environmental concerns and room design considerations.

### YOUR COMPLETE SOURCE FOR GAS PHASE FILTRATION

- *Media for all types of applications ($KMnO_4$ on alumina, plain carbon, impregnated carbon)*
- *Equipment design and supply*
- *Laboratory support, media testing, coupon analysis*
- *Monitoring instruments*
- *Technical support for application and design*

**PROMARK ASSOCIATES, INC.**
*Gas Filtration Experts*

2656 Broadway Ave. Evanston, IL 60201-1502 USA
p 847.866.7446 f 847.866.7795 toll free 800.809.8300

www.promarkassociates.com

# ProGuard 200 Media

## CHEMICAL CAPACITY

**ProGuard 200** shall meet the following removal capacities:

- ***Hydrogen Sulfide*** *8% min. by weight*
- ***Sulfur Dioxide*** *4% min. by weight*
- ***Nitric Oxide*** *2.8% min. by weight*
- ***Formaldehyde*** *1.4% min. by weight*

## PHYSICAL PROPERTIES

**ProGuard 200** shall have the following properties:

- ***Potassium Permanganate Content*** *4%*
- ***Bulk Density*** *50 lbs/ft³* (.8 g/cc)
- ***Crush Strength*** *20 lbs minimum by weight*
- ***Abrasion Loss*** *1% maximum*
- ***Moisture Content*** *25% maximum*
- ***Nominal Pellet Diameter*** *3/16" (4.76 mm in 3x6 mesh range) or 1/8" (3.18 mm in 5x8 mesh range)*

## QUALITY CONTROL

Quality control is maintained by monitoring the physical properties and chemical capacities and ensuring they fall within specifications.

## APPLICATION GUIDELINES

**ProGuard 200** shall perform effectively under the following conditions and guidelines:

- ***Temperature*** *-4°F to 125°F (-20°C to 51°C)*
- ***Humidity*** *10-95%RH*
- ***Airflow*** *ProGuard media shall be effective in commercial and industrial systems with airflows ranging from less than 25 CFM (42.5 m³/hr) to over 100,000 CFM (169,920 m³/hr) and with velocities from 60 FPM to 500 FPM (1,080 to 9,000m/hr).*
- ***Media Performance*** *ProGuard 200 shall be designed for 99.5% min. removal efficiency when new in properly designed systems.*
- ***Media Life*** *In order to determine ProGuard 200 media life, periodic samples shall be taken and returned to the factory for analysis. The results of testing make it possible to project changeout intervals and ensure media performance.*

## INSTALLATION AND DISPOSAL REQUIREMENTS

Installers shall use dust masks, safety goggles, and rubber gloves. Spent ProGuard media should be disposed of according to local, state and federal guidelines.

## PACKAGING

ProGuard media is packaged in three mil poly bags inside a double wall corrugated box that holds 50 lbs (one cubic foot). Media is also available in 50 lb plastic pails and bulk sacks up to 2,000 lbs.

## ADDITIONAL INFORMATION AND RELATED EQUIPMENT

- ***PMA Media Selection Chart -*** *lists specific gases that are controlled by ProGuard 200 media (potassium permanganate on alumina) as well as gases controlled by ProGuard 700 carbon and other media, either alone or in a blend.*
- ***PMA 12 & 18 Media Modules -*** *refillable steel, standardized modules that hold the ProGuard media for use in housings.*
- ***PMD 12 & 18 Media Modules -*** *disposable modules that are filled at the factory with any of the ProGuard media.*
- ***PMA Trays -*** *refillable steel trays that hold media for installation in various housings.*
- ***Honeycomb Disposables -*** *directly replace refillables and can be filled with any of the ProGuard media.*
- ***Carbon Bonded Disposables -*** *activated carbon in a bonded block disposable filter, suitable for high purity applications; more carbon per panel than a comparable loose fill. Eliminates metal and labor to empty and fill metal trays.*

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