Specifications for IQAir® ChemiSorber Gas Phase Media

Media Type

The IQAir ChemiSorber gas and odour control media consists of activated impregnated alumina pellets of a special granular, spherical, porous nature. They are impregnated with potassium permanganate ($KMnO_4$) to remove gaseous contaminants through a chemical reaction process. The adsorbed gases are converted to non-toxic solids, which remain media-bound and are permanently removed from the environment to provide optimum adsorption, absorption and oxidation of a wide variety of gaseous contaminants.

Media content (approx.)

IQAir GC ChemiSorber:	7.8 kg
IQAir GCX ChemiSorber:	14.6 kg
IQAir CleanZone 5200 CS:	72.0 kg

Target Pollutants

The IQAir ChemiSorber media is designed to target a wide variety of chemical compounds including many lower molecular weight aldehydes and organic acids, oxides of sulphur and nitrogen oxides, including:

- Acetic acid
- Acrylic acid
- Formaldehyde
- Hydrogen fluoride
- Hydrogen sulphide
- Nicotine
- Nitric oxide
- Nitrogen dioxide
- Sulphur dioxide
- Sulphur trioxide

Process

The IQAir ChemiSorber media removes contaminant gases by means of the following processes:

- Absorption
- Adsorption
- Chemisorption

Removal Capacity

The IQAir ChemiSorber media mix is designed to meet the following approximate removal capacities:

- Trichloroethane:	20.0% minimum by weight*
- Hydrogen sulfide:	10.0%
- Sulphur dioxide:	4.0%
- Nitric oxide:	2.8%
- Formaldehyde:	1.4%
- Ethylene:	1.0%

Performance

The IQAir ChemiSorber is designed for 95% minimum removal efficiency in IQAir systems.**

* "10.0% minimum by weight" means that 10 kg of media will have a holding capacity for approx. 1 kg (i.e. 10%) of gas.

** **Important Note:** The manufacturer makes no claim as to the specific air cleaning results that can be achieved under the user's individual operating conditions. The actual indoor air quality improvements that can be achieved with air cleaning systems depend not only on the system's performance, but also on factors which are specific to that indoor environment, and therefore beyond the control of the manufacturer. Important factors which will influence the air quality improvements include intensity of the contaminant and its source, the size of the indoor environment, the operating speed of the system, the number of air cleaners placed in the environment, ambient temperature and humidity as well as the state of saturation of the individual filter elements.

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