

Impregnation	Chemicals	Quantity(wt%)	Activated carbona	Examples for application
	Sulfuric acid	2-25	F 1-4mmØ	Ammonia, amine, mercury
	Phosphoric acid	10-30	F 1-4 mm Ø	Ammonia, amine
	Potassium carbonate	10-20	F 1-4 mm Ø	Acid gases (HCl, HF, SO <sub>2</sub> , H <sub>2</sub> S, NO <sub>2</sub> ), carbon disulfide
	Iron oxide	10	F 1-4 mm Ø	H <sub>2</sub> S, mercaptan. COS
	Potassium iodide	1-5	F 1-4 mm Ø	H <sub>2</sub> S,PH <sub>3</sub> , Hg, AsH <sub>3</sub> , radioactive gases/radioactivemethyl iodide
	Triethylene diamine (TEDA)	2-5	F 1-2 mm Ø G 6-1 6 mesh	Radioactive gases/radioactivemethyl iodide
	Sulfur	10-20	F 1-4 mm Ø ,G	mercury
	Potassium permanganate	5	F 3+4 mm Ø	H <sub>2</sub> S from oxygen-lacking gases
	Manganese IV oxide		G 6-16 mesh	Aldehyde
	Silver	0.1-3	F 3+4 mm Ø G 8-30 mesh	F: phosphine, arsine G: domestic drinking water filters (oligodynamic effect)
	Zinc oxide	10	F 1-4 mm Ø	Hydrogen cyanide
	Chromium-copper-silver salts	10-20	F 0.8-3 mm Ø G 1 2-30 mesh G 6-1 6 mesh	Civil and military gas protection Phosgene, chlorine, arsine Chloropicrin, sarin and other nerve gases
	Mercury II chloride	10-15	F 3+4 mm Ø	Vinyl chloride synthesis
	Zinc acetate	15-25	F 3+4 mm Ø	Vinyl fluoride synthesis
	Noble metals (palladium, platinum)	1-5	F, G, P	Vinyl acetate synthesis Organic synthesis, hydrogenation

### Gas purification

Application fields:  
 Hydrogen sulfide  
 Mercaptan  
 Mercury  
 Ammonia  
 Amine  
 Acid gases (HCl, SO<sub>2</sub>, HF, HCN)  
 Arsine  
 Phosphine  
 Aldehyde  
 Radioactive iodine  
 Radioactive methyl iodide  
 Nitrogen oxide

### Civil and military gas protection

Application in gas masks, room filters and respiratory apparatus filters:  
 Sulfur dioxide  
 Hydrogen chloride  
 Hydrogen fluoride  
 Nitrogen oxide  
 Amine  
 Hydrogen sulfide  
 Mercury  
 Radioactive iodine  
 Radioactive methyl iodide  
 Phosgene  
 Hydrogen cyanide  
 Chlorine  
 Arsine  
 Sarin and other nerve gases

### Catalysis

Application in catalysis:  
 Vinyl acetate synthesis  
 Vinyl chloride synthesis  
 Vinyl fluoride synthesis