

### Reference table for activated charcoal / carbon efficiency

Please note that some of the contaminants listed in the following table are specific chemical compounds. Some represent classes of compounds, and others are mixtures of variable composition.

The activated carbon capacity for chemical fumes, gas, odours / odors as noted in the table by the numbers 1-4, varies somewhat with the odours / odors concentration in the air with humidity and temperature. The numbers listed in the Index represent typical or average conditions, and might vary in specific instances. These are some of the more common chemicals, gas, fumes, odours / odors that we are asked to address.

#### Capacity index numbers and descriptions:

Index no.	Capacity / description	Notes
4	high, one pound of carbon can adsorb approx, 20% to 50% of its own weight.	Includes most odor causing substances.
3	satisfactory, one pound of carbon can adsorb approx, 10% to 20% of its own weight.	capacity is not high as 4
2	not highly adsorbed	might be taken up sufficiently under particular conditions of operation
1	low	activated carbon cannot be used satisfactorily to remove chemical gas under ordinary conditions.

**Activated Charcoal / Activated Carbon Efficiency Table  
(chemical gas, fumes, type of odor and corresponding capacity index):**

Chemical, gas, fumes, odor	Index	Chemical, gas, fumes, odor	Index	Chemical, gas, fumes, odor	Index	Chemical, gas, fumes, odor	Index
* Acetic Acid	4	Dichloroethylene	4	Isopropyl alcohol	4	Propyl chloride	4
Acetic anhydride	4	Dichloroethyl ether	4	Masking agents	4	Propyl ether	4
Acetone	3		3	Medicinal odors	4	Propyl mercaptan	4
* Acetylene	1	Dichloromonofluomethane	4	Melons	4	* Propyne	2
* Acrolein	3	Dichloropropane	4	Menthol	4	Putrefying substances	3
Acrylic acid	4	Dichlorotetrafluoroethane	4	Mercaptans	4	Putrescine	3
Acrylonitrile	4	Diesel fumes fumeodor	3	Methane	1	Radiation products	2
Adhesives	4	* Diethylamine	4	Methyl acetate	3	Rancid oil	4
Air-Wick	4	Doethyl ketone	4	Methyl acrylic	4	Resins	4
Alcoholic beverages	4	Dimethylaniline	4	Methyl alcohol	3	Reodorants	4
* Amines	2	Dimethylsulfate	4	Methyl bromide	3	Ripening fruits	4
* Ammonia	2	Dioxane	4	Methyl butyl ketone	4	Rubber	4
Amyl acetate	4	Dipropyl ketone	4	Methyl cellosolve	4	Sauerkraut	4
Amyl alcohol	4	Disinfectants	4	Methyl cellosolve acetate	4	Sewer odors	4
Amyl ether	4	Embalming odors	1	Methyl chloride	3	Skatole	4
Animal odors	3	Ethane	3	Methyl chloroform	4	Slaughtering odors	3
Anesthetics	3	Ether	4	Methyl ether	3	Smog	4
Aniline	4	Ethyl acetate	4	Methyl ether ketone	4	Smoke	4
Antiseptics	4	Ethyl acrylic	4	Methyl formate	3	Soaps	4
Asphalt fumes	4	Ethyl alcohol	3	Methyl isobutyl ketone	4	Solvents	3
Automobile exhausts	3	* Ethylamine	4	Methyl mercaptan	4	Sour milk	4
Bathroom smells	4	Ethyl benzene	4	Methylcyclohexane	4	Spilled beverages	4
Benzene	4	Ethyl bromide	3	Methylcyclohexanol	4	Spoiled foodstuffs	4
* Bleaching solutions	3	Ethyl chloride	3	Methylcyclohexanone	4	Stoddard solvent	4
Body odors	4	Ethyl ether	3	Methyl oxide	4	Stuffiness	4
Borane	3	* Ethyl formate	3	Methylene chloride	1	Styrene monomer	4
Bromine	4	Ethyl mercaptan	4	Methylmethacrylate	4	* Sulfur dioxide	2
Burned flesh	4	Ethyl silicate	1	Mildew	3	* Sulfur trioxide	3
Burned food	4	* Ethylene	1	Mixed odors	4	Sulfuric acid	4
Burning fat	4	Ethylene chlorhydrin	4	Mold	3	Tar	4
Butadiene	3	Ethylene dichloride	4	Monochlorobenzene	4	* Tarnishing gases	3
Butane	2	Ethylene oxide	3	Monoflurotrichloromethane	4	Tetrachlorethylene	4

Butanone	4	Essential oils	4	Mothballs	4	Tetrachloroethane	4
Butyl acetate	4	Eucalyptole	4	Naptha (coal bar)	4	Toilet odors	4
Butyl cellosolve	4	Exhaust fumes	3	Naptha (petroleum)	4	Toulene	4
Butyl chloride	4	Fertilizer	4	Napthalene	4	Toluidine	4
Butyl ether	4	Film processing odors	3	Nicotine	4	Trichlorethylene	4
* Butylene	2	Fish odors	4	* Nitric acid	3	Trichloroethane	4
* Butyne	2	Floral scents	4	Nitro benzenes	4	Urea	4
* Butyraldehyde	3	Flurotrichloromethane	3	Nitroethane	4	Uric acid	4
Butyric acid	4	Food aromas	4	* Nitrogen oxide	2	Valeric acid	4
Cadaverine	3	* Formaldehyde	2	Nitroglycerine	4	Valericaldehyde	4
Camphor	4	Formic acid	3	Nitromethane	4	Varnish fumes	4
Cancer odor	4	Fuel gases	2	Nitropropane	4	Vinegar	4
Caprylic acid	4	Fumes	3	Nonane	4	Vinyl chloride	3
Carbolic acid	4	Gangrene	4	Octalene	4	Waste products	3
Carbon disulfide	4	Garlic	4	Octane	4	Wood alcohol	3
* Carbon dioxide	1	Gasoline	4	Odorants	4	Xylene	4
Carbon monoxide	1	Heptane	4	Onions	4		
Carbon tetrachloride	4	Heptylene	4	Organic chemicals	4		
Cellosolve	4	Hexane	3	Ozone	4		
Cellosolve acetate	4	* Hexylene	3	Packing house odors	4		
Charred materials	4	* Hexyne	3	Paint odor	4		
Cheese	4	Hospital odors	4	Paste and glue	4		
Chlorine	3	Household smells	4	Pentane	3		
Chlorobenzene	4	Hydrogen	1	Pentanone	4		
Chlorbutadiene	4	Hydrogen bromide	2	* Pentylene	3		
Chloroform	4	* Hydrogen chloride	2	* Pentyne	3		
Chloronitropropane	4	* Hydrogen cyanide	3	Perchloroethylene	4		
Chloropicrin	4	* Hydrogen sulfide	4	Perfumes, cosmetics	4		
Cigarette smoke odor	4	Incense	4	Perspirations	4		
Citrus, other fruits	4	Indole	3	Pet odors	4		
Cleaning compounds	4	Industrial wastes	4	Phenol	4		
Combustion odors	3	Iodine	4	Phoagne	3		
Corrosive gases	3	Iodoform	4	Popcorn, candy	4		
Cooking odors	4	Irritants	4	Poultry odors	4		
Creosote	4	Isophorone	3	Propane	2		
Creosol	4	* Isoprene	4	* Propionaldehyde	3		
Crotonaldehyde	4	Isopropyl acetate		Propionic acid	4		

Note:

\* These contaminants can be removed with [specially impregnated carbon](#) which will raise the capacity of efficiency for that contaminant to Capacity index 3 or 4. [ [PDF file of Special Carbon types](#) ]