SCAT Active Carbon 2.0 / 3.0
Adsorption Table

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The following list offers a reference for the adsorption ability of active carbon granulate w.r.t. gaseous impurities in the air. This ability to adsorb is influenced by the following factors:

- Concentration of impurities in the air
- Relative humidity
- Temperature
- Average flowrate (through it)
- Grain size of the active carbon
- Diffusion coefficient of all the adsorbing materials
- Pore size of the active carbon

The evaluation of the adsorption ability is only realistically possible if liquid and solid impurities are first removed, using suitable pre-filters. Average values and prevailing conditions are here assumed to prevail.

Meaning of the Evaluations

Adsorptional Ability	Meaning
A	High adsorptional ability: 1 kg of active carbon can adsorb between 20 and 30% of its own weight.
B	Satisfactory adsorptional ability: the adsorbing capacity for materials of this class lies between 10 and 20%.
C	Limited adsorptional ability: the adsorbing capacity is slight, but is still acceptable under certain conditions.
D	Slight adsorptional ability: the ability to adsorb is so very reduced for these materials, that active carbon should not be employed.

Ability shown in black = Active Carbon 2.0
Ability shown in red = Active Carbon 3.0

Chemical / Material	Adsorptional Ability
Acetaldehyde	C
Acetic acid	A
Acetic anhydride	A
Acetone	B
Acetylene	D
Acids	B
Acrolein	B
Acrylic acid	A
Acrylonitrile	A
Adhesives	A
Alcohol	A
Alcoholic beverages	A
Amines	C
Ammonia	C / A
Amyl acetate	A
Amyl alcohol	A

Chemical / Material	Adsorptional Ability
Amyl ether	A
Anesthetics	B
Aniline	A
Animal odors	B
Antiseptics	A
Asphalt fumes	A
Automobile exhaust	B
Bacteria	B
Bathroom smells	A
Benzene	A
Bleaching solutions	B
Body odors	A
Bromine	A
Burned fat	A
Burned flesh	A
Burned food	A

Chemical / Material	Adsorptional Ability
Butyraldehyde	B
Butadiene	B
Butane	C
Butanone	C
Butyl acetate	A
Butyl alcohol	A
Butyl cellosolve	A
Butyl chloride	A
Butyl ether	A
Butylene	C
Butyne	C
Butyric acid	A
Camphor	A
Cancer odor	A
Caprylic acid	A
Carbolic acid	A

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Ability shown in red = Active Carbon 3.0

Chemical / Material	Adsorptional Ability
Carbon bisulfide	C
Carbon dioxide	D
Carbon monoxide	D
Carbon tetrachloride	A
Cellosolve	A
Cellosolve acetate	A
Charred materials	A
Cheese	A
Chemicals	B
Chlorine	C
Chloronitropropane	A
Chlorobenzene	A
Chlorobutadiene	A
Chloroform	A
Chloropicrin	A
Cigarette smoke	A
Citrus and other fruits	A
Cleaning compounds	A
Coal smoke	B
Combustion odors	B
Cooking odors	A
Corrosive gases	C
Creosote	A
Cresols	A
Crotonaldehyde	A
Cyclohexane	A
Cyclohexanol	A
Cyclohexanone	A
Cyclohexene	A
Dead animals	A
Decane	A
Decaying substances	A
Decomposition odors	A
Deodorants	A
Detergents	A
Dibromoethane	A

Chemical / Material	Adsorptional Ability
Dichlorobenzene	A
Dichlorodifluoromethane	B
Dichloroethane	A
Dichloroethyl ether	A
Dichloroethylene	A
Dichloromonofluoromethane	A
Dichloronitroethane	A
Dichloropropane	A
Dichlorotetrafluoroethane	B
Diesel fumes	B
Diethylamine	B
Diethylketone	A
Dimethylaniline	A
Dimethylsulfate	A
Dioxane	A
Dipropylketone	A
Dish odors	A
Disinfectants	A
Embalming odors	A
Essential oils	A
Ethane	D
Ether	B
Ethyl acetate	A
Ethyl acrylate	A
Ethyl alcohol	A
Ethylamine	B
Ethyl benzene	A
Ethyl bromide	B
Ethyl chloride	B
Ethyl ether	B
Ethyl formate	B
Ethyl mercaptan	A
Ethyl silicate	A
Ethylene	D
Ethylene chlorhydrin	A
Ethylene dichloride	A

Chemical / Material	Adsorptional Ability
Ethylene oxide	B
Eucalyptole	A
Exhaust fumes	B
Female odors	A
Fertilizer	A
Film processing odors	B
Floral scents	A
Fluorotrichloromethane	B
Food aromas	A
Formaldehyde	C
Formic acid	B / A
Fuel gases	C
Fumes	B
Gangrene	A
Garlic	A
Gasoline	A
Heptane	A
Heptene	A
Hexane	B
Hexenes	B
Hexynes	B
Hospital odors	A
Household smells	A
Hydrochloric acid	- / A
Hydrogen	D
Hydrogen chloride	C / A
Hydrogen cyanide	C
Hydrogen fluoride	C / A
Hydrogen iodide	C
Hydrogen selenide	C
Hydrogen sulfide	C / A
Hydrogen bromide	C / A
Incense	A
Incomplete combustion	B
Indole	A
Industrial wastes	B

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Ability shown in black = Active Carbon 2.0
Ability shown in red = Active Carbon 3.0

Chemical / Material	Adsorptional Ability
Inorganic chemicals	B
Iodine	A
Iodoform	A
Irritants	A
Isophorone	A
Isoprene	B
Isopropyl acetate	A
Isopropyl alcohol	A
Isopropyl ether	A
Kerosene	A
Kitchen odors	A
Lactic acid	A
Lingering odors	A
Liquid fuels	A
Liquor odors	A
Lubricating oils and greases	A
Masking agents	A
Medicinal odors	A
Melons	A
Menthol	A
Mercaptans	A
Mesityl oxide	A
Methane	D
Methyl acetate	B
Methyl acrylate	A
Methyl alcohol	B
Methyl bromide	B
Methyl butyl ketone	A
Methyl cellosolve	A
Methyl cellosolve acetate	A
Methyl chloride	C
Methyl chloroform	A
Methyl ether	B
Methyl ethyl ketone	A
Methyl formate	B
Methyl isobutyl ketone	A
Methyl mercaptan	A
Methylal	B
Methylcyclohexane	A
Methylcyclohexanol	A
Methylcyclohexanone	A
Methylene chloride	A
Mildew	B
Mixed odors	A
Mold	B
Monochlorobenzene	A
Monoethanolamine	- / A
Monofluorotrichloromethane	B
Moth balls	A
Naphtha (Coal tar)	A
Naphtha (Petroleum)	A
Naphthalene	A
Nicotine	A
Nitrobenzene	A
Nitric acid	B / A
Nitroethane	A
Nitrogen dioxide	C / A
Nitroglycerine	A
Nitromethane	A
Nitropropane	A
Nitrotoluene	A
Nonane	A
Noxious gases	B
Octalene	A
Octane	A
Odorants	A
Odors	A
Onions	A
Organic chemicals	A
Ozone	A
Packing house odors	A
Paint and redecorating odors	
Palmitic acid	A
Paradichlorbenzene	A
Paste and glue	A
Pentane	B
Pentanone	A
Pentylene	B
Pentynes	B
Perchloroethylene	A
Perfumes, cosmetics	A
Perspiration	A
Pet odors	A
Phenol	A
Phosgene	B
Phosphoric acid	- / A
Pitch	A
Plastics	A
Poisonous gases	B
Pollen	B
Popcorn and candy	A
Potassium hydroxide	- / A
Poultry odors	A
Propane	C
Propionic acid	A
Propionaldehyde	B
Propyl alcohol	A
Propyl acetate	A
Propyl chloride	A
Propyl ether	A
Propyl mercaptan	A
Propylene	C
Propyne	C
Putrefying substances	B
Pyridine	A
Radioactive products	C
Rancid oils	A
Reodorants	A

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Adsorption Table

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Ability shown in black = Active Carbon 2.0
Ability shown in red = Active Carbon 3.0

Chemical / Material	Adsorptional Ability
Resins	A
Ripening fruits	A
Rotting paper	A
Rubber	A
Sauerkraut	A
Sewer odors	A
Skatole	A
Slaughterhouse odors	B
Smog	A
Smoke	A
Soaps	A
Sodium hydroxide	- / A
Solvents	B
Sour milk	A
Spilled beverages	A
Spoiled food stuffs	A
Stale odors	A
Stoddard Solvent	A
Stuffiness	A
Styrene monomer	A
Sulfur compounds	A
Sulfur dioxide	C
Sulfur trioxide	C
Sulfuric acid	A
Tar	A
Tetrachloroethane	A
Tetrachloroethylene	A
Tetrahydrofuran (THF)	A
Theatrical makeup odors	A
Tobacco smoke	A
Toilet odors	A
Toluene	A
Toluidine	A
Trichlorethylene	A
Turpentine	A
Urea	A

Chemical / Material	Adsorptional Ability
Uric acid	A
Valeric acid	A
Valeric aldehyde	A
Vapors	A
Varnish fumes	A
Vinegar	A
Vinyl chloride	B
Viruses	B
Volatile materials	B
Waste products	A
Wood alcohol	B
Xylene	A

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S.C.A.T. active carbon has been optimized for the adsorption of organic solvent vapours in the field of HPLC / UHPLC.

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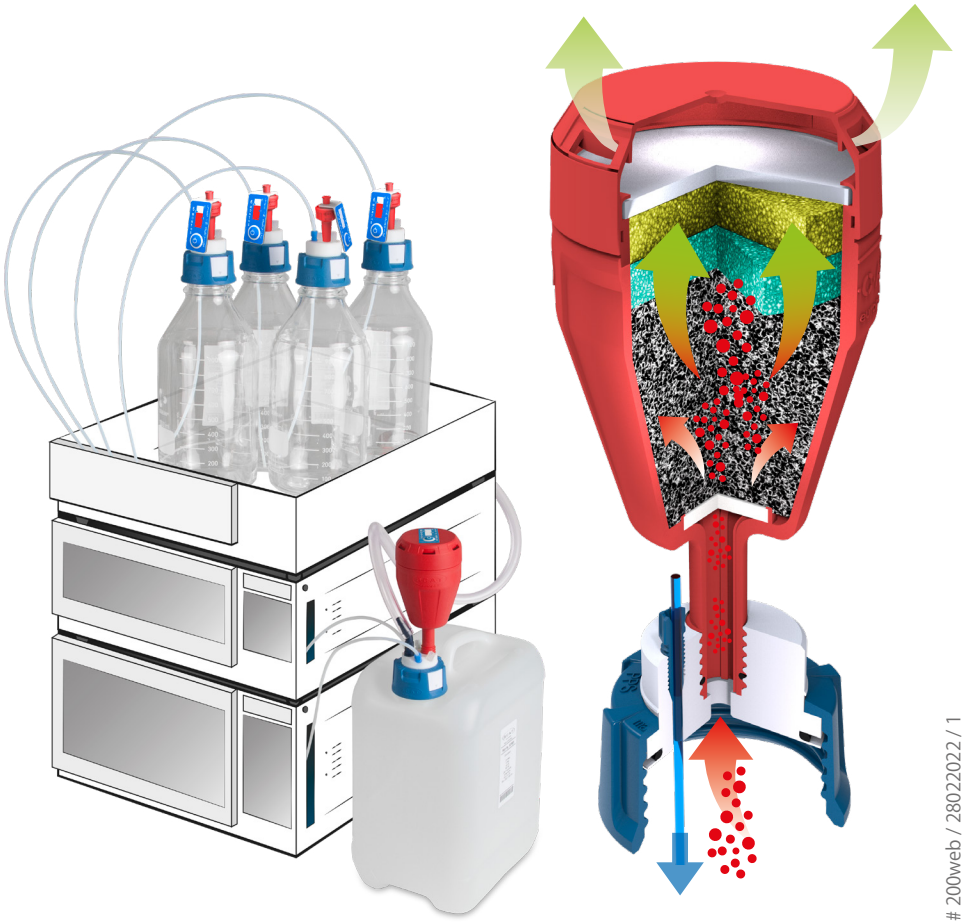

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