****

**Technical Information Bulletin**

**LIST OF ADSORPTION ABILITY OF ACTIVATED CARBON FOR VARIOUS MATERIALS**

**Absorption Ability Ratings**

“**E**” - Excellent

“**G**” - Good

“**P**” - Poor

“**N**” - None materials are not adsorbed by activated carbon.

Adsorption Adsorption Material Ability Material Ability Acetaldehyde P Bromine E

Acetic acid E Burned flesh E

Acetic anhydride E Burned food E Acetone G Burned fat E Acetylene N Butadiene G Acids G Butane P Acrolein G Butanone P Acrylic acid E Butyl acetate E Acrylonitrile E Butyl alcohol E Adhesives E Butyl cellosolve E Alcohol E Butyl chloride E Alcoholic beverages E Butyl ether E Amines P Butylene P Ammonia P Butyne P Amyl acetate E Burytaldehyde G Amyl alcohol E Butyric acid E Amyl ether E

Animal odors G Camphor E Anesthetics G Cancer odor E Aniline E Caprylic acid E Antiseptics E Carbolic acid E Asphalt fumes E Carbon bisulfide P Automobile exhaust G Carbon dioxide N Carbon monoxide N

Bacteria G Carbon tetrachloride E Bathroom smells E Cellosolve E Benzene E Cellosolve acetate E Bleaching solutions G Charred materials E Body odors E Cheese E

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Material | Adsorption  Ability |  | Material | Adsorption  Ability |
| Chemicals | G |  | Embalming odors | E |
| Chlorine | P |  | Ethane | N |
| Chlorobenzene | E |  | Ether | G |
| Chlorobutadiene | E |  | Ethyl acetate | E |
| Chloroform | E |  | Ethyl acrylate | E |
| Chloro nitropropane | E |  | Ethyl alcohol | E |
| Chloropicrin | E |  | Ethyl amine | G |
| Cigarette smoke | E |  | Ethyl benzene | E |
| citrus and other fruits | E |  | Ethyl bromide | G |
| Cleaning compounds | E |  | Ethyl chloride | G |
| Coal smoke | G |  | Ethyl ether | G |
| Combustion odors | G |  | Ethyl formate | G |
| Cooking odors | E |  | Ethyl mercaptan | E |
| Corrosive gases | P |  | Ethyl silicate | E |
| Creosote | E |  | Ethylene | N |
| Cresol | E |  | Ethylene chlorhydrin | E |
| Crotonaldehyde | E |  | Ethylene dichloride | E |
| Cyclohexane | E |  | Ethylene oxide | G |
| Cyclohexanol | E |  | Essential oils | E |
| Cyclohexanone | E |  | Eucalyptole | E |
| Cyclohexene | E |  | Exhaust fumes | G |
| Dead animals | E |  | Female odors | E |
| Decane | E |  | Fertilizer | E |
| Decaying substances | E |  | Film processing odors | G |
| Decomposition odors | E |  | Dish odors | E |
| Deodorants | E |  | Floral scents | E |
| Detergents | E |  | Fluorotrichloromethane | G |
| Dibromeothane | E |  | Food aromas | E |
| Dichlorobenzene | E |  | Formaldehyde | P |
| Dichlorodifluoromethane | G |  | Formic acid | G |
| Dichloroethane | E |  | Fuel gases | P |
| Dichloroethylene | E |  | Fumes | G |
| Dichloroethyl ether | E |  | Gangrene | E |
| Dichloromonofluormethane | E |  | Garlic | E |
| Dichloro-nitroethane E Gasoline E | | | | |
| Dichloropropane | E |  | Heptane | E |
| Dichlorotetrafluoroethane | G |  | Heptylene | E |
| Diesel fumes | G |  | Hexane | G |
| Diethyl amine | G |  | Hexylene | G |
| Diethyl ketone | E |  | Hexyne | G |
| Dimethylaniline | E |  | Hospital odors | E |
| Dimethylsulfate | E |  | Household smells | E |
| Dioxane | E |  | Hydrogen | N |
| Dipropyl ketone | E |  | Hydrogenbromide | P |
| Disinfectants | E |  | Hydrogen chloride | P |

Adsorption Adsorption

Material Ability Material Ability

Hydrogen cyanide P Methyl mercaptan E Hydrogen fluoride P Methylal G Hydrogen iodide P Methylcyclohexane E Hydrogen selenide P Methylcyclohexanol E

Hydrogen sulfide P Methylcyclohexanone E Incense E Methylene chloride E Indole E Mildew G Inorganic chemicals G Mixed odors E Incomplete combustion G Mold G Industrial wastes G Monochlorobenzene E Iodine E Monofluorotrichloromethane G Iodoform E Moth balls E Irritants E

Isophorone E Naphtha (Coal tar) E Isoprene G Naphtha (Petroleum) E Isopropyl acetate E Naphthalene E Isopropyl alcohol E Nicotine E Isopropyl ether E Nitric acid G Kerosene E Nito benzenes E Kitchen odors E Nitroethane E

Lactic acid E Nitrogen dioxide P Lingering odors E Nitroglycerine E Liquid fuels E Nitromethane E Liquor odors E Nitropropane E Lubricating oils and greases E Nitrotoluene E Nonane E

Masking agents E Noxious gases G Medicinal odors E Octalene E

Melons E Octane E Menthol E Odors E Mercaptans E Odorants E Mesityl oxide E Onions E Methane N Organic chemicals E Methyl acetate G Ozone E Methyl acrylate E

Methyl alcohol G Packing house odors E Methyl bromide G Paint and redecorating odors E Methyl butyl ketone E Palmitic acid E Methyl cellosolve E Paper deteriorations E Methyl cellosolve acetate E Paradichlorbenzine E Methyl chloride P Paste and glue E Methyl chloroform E Pentane G Methyl ether G Pentanone E Methyl ethyl ketone E Pentylene G Methyl formate G Pentyne G Methyl isobutyl ketone E Perchloroethylene E

Adsorption Adsorption

Material Ability Material Ability

Perfumes, cosmetics E Sulfur compounds E Perspirations E Sulfur dioxide P Pet odors E Sulfur trioxide P

Phenol E Sulfuric acid E Phosgene G Tar E

Pitch E Tarnishing gases G Plastics E Tetrachloroethane E Poison gases G Tetrachloroethylene E Pollen G Theatrical makeup odors E Popcorn and candy E Tobacco smoke E Poultry odors E Toilet odors E Propano P Toluene E Propionaldchyde G Toluidine E Propinoic acid E Trichlorethylene E Propyl acetate E Turpentine E Proply alcohol E Urea E Propyl chloride E Uric acid E Propyl ether E

Propyl mercaptan E Valeric acid E Propylene P Valericaldehyde E Propyne P Vapors E Putrefying substances G Varnish fumes E Puterscing E Vinegar E Pyridine E Vinyl chloride G Viruses G

Radiation products P Volatile materials G Rancid oils E

Resins E Waste products E Reodorants E Wood alcohol G Ripening fruits E Xylene E Rubber E

**NOTE: Table 1 lists the relative effectiveness** Sauerkraut E **of activated carbon on various materials.** Sewer odors E  Slaughtering odors G

Smog E

Soaps E **The life expectancy of any purification system is** Smoke E **dependent on the concentration of the contaminants to** Solvents G **which the system is exposed. Obviously, the**

Sour milks E **consumption rate or life of the media will be shorter** Spilled beverages E **as the concentration of the gaseous contaminant** Spoiled food stuffs E **increases. Also, be aware that in most real world cases** Stale odors E **there is no air stream with just one contaminant, but it**

Stoddard Solvent E **almost always is accompanied by other gases. This must**

Stuffiness E **always be taken into consideration.**

Styrene monomer E