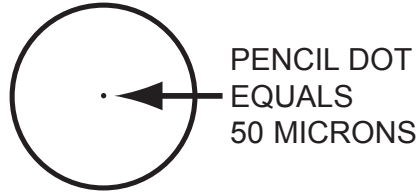
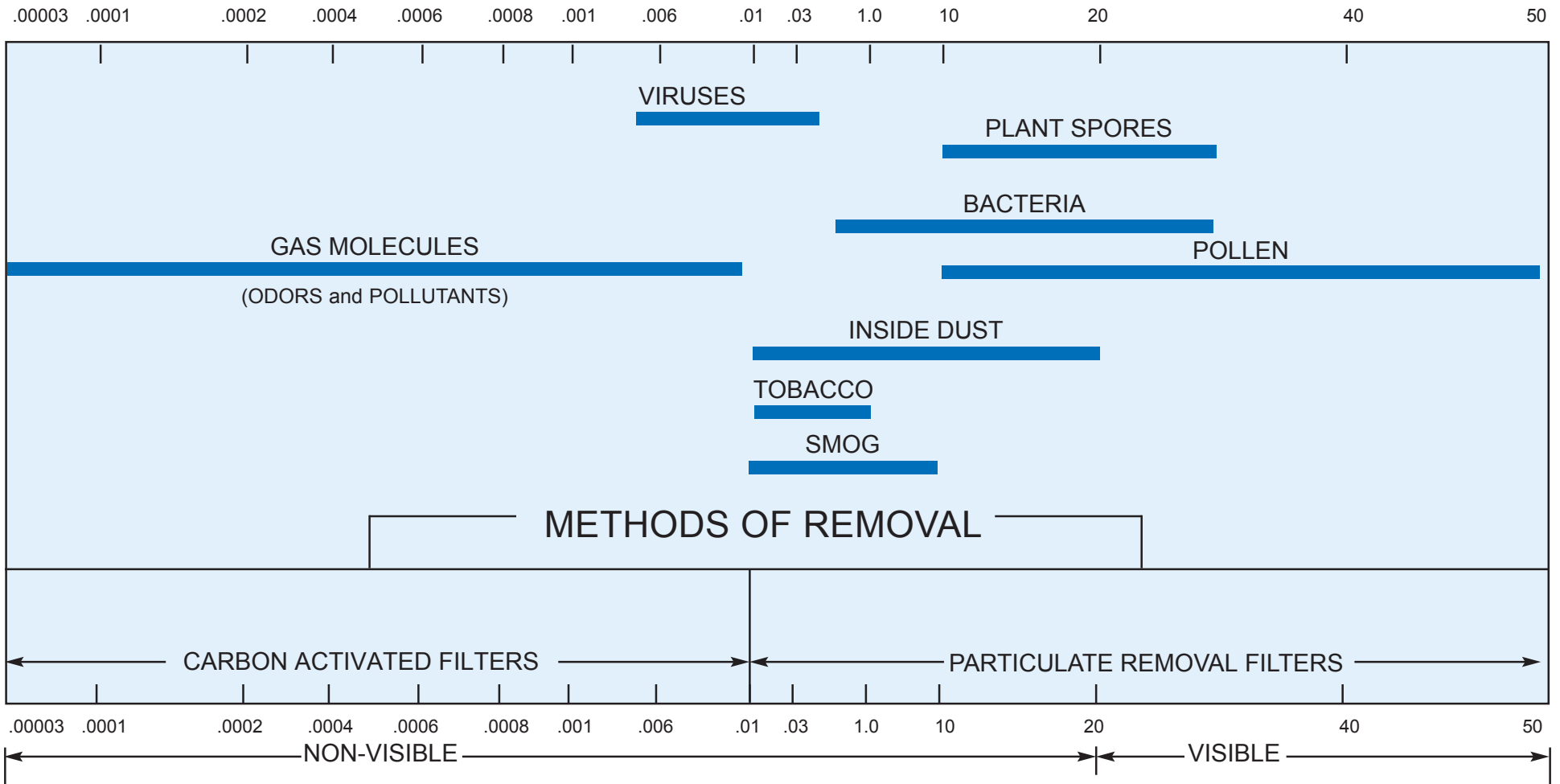


American-made Lighting and Magnification since 1883



# REMOVAL OF TYPICAL POLLUTANTS

MICRONS



## Odor and Pollutant Capacity Index Chart

SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX
Acetaldehyde	2	Carbon Tetrachloride	4	Ethyl Acrylate	4	Iodine	4	Nitro Benzene	4	<b>Resins</b>	<b>4</b>
Acetic Acid	4	Cellosolve	4	Ethyl Alcohol	4	Iodoform	4	Nitroethane	4	<b>Reodorants</b>	<b>4</b>
Acetic Anhydride	4	Cellosolve Acetate	4	Ethyl Amine	3	<b>Irritants</b>	<b>4</b>	Nitrogen Dioxide	2	<b>Ripening Fruits</b>	<b>4</b>
Acetone	3	<b>Charred Materials</b>	<b>4</b>	Ethyl Benzene	4	Isophorone	4	Nitroglycerine	4	<b>Rubber</b>	<b>4</b>
Acetylene	1	<b>Cheese</b>	<b>4</b>	Ethyl Bromide	3	Isoprene	3	Nitromethane	4	<b>Sauerkraut</b>	<b>4</b>
<b>Acids</b>	<b>3</b>	<b>Chemicals</b>	<b>3</b>	Ethyl Chloride	3	Isopropyl Acetate	4	Nitropropane	4	<b>Sewer Odors</b>	<b>4</b>
Acrolein	1	Chlorine	3	Ethyl Ether	3	Isopropyl Alcohol	4	Nitrotoluene	4	Skatole	4
Acryaldehyde	3	Chlorobenzene	4	Ethyl Formate	3	Isopropyl Ether	4	Nonane	4	<b>Slaughtering Odors</b>	<b>3</b>
Acrylic Acid	4	Chlorobutadiene	4	Ethyl Mercaptan	4	<b>Kerosene</b>	<b>4</b>	<b>Noxious Gases</b>	<b>3</b>	<b>Smog</b>	<b>4</b>
Acrylonitrile	4	Chloroform	4	Ethyl Silicate	4	<b>Kitchen Odors</b>	<b>4</b>	Octylene	4	<b>Smoke</b>	<b>4</b>
<b>Adhesives</b>	<b>4</b>	Chloro Nitropropane	4	Ethylene	1	<b>Lactic Acid</b>	<b>4</b>	Octane	4	<b>Soaps</b>	<b>4</b>
<b>Aged Manuscripts</b>	<b>4</b>	Chloropicrin	4	Ethylene Chlorhydrin	4	<b>Lingering Odors</b>	<b>4</b>	<b>Odors</b>	<b>4</b>	<b>Solvents</b>	<b>3</b>
<b>Air Wick</b>	<b>4</b>	<b>Cigarette Smoke</b>	<b>4</b>	Ethylene Dichloride	4	<b>Liquid Fuels</b>	<b>4</b>	<b>Odorants</b>	<b>4</b>	<b>Sour Milk</b>	<b>4</b>
<b>Alcohol</b>	<b>4</b>	<b>Citrus and other fruits</b>	<b>4</b>	Ethylene Oxide	3	<b>Liquor Odors</b>	<b>4</b>	<b>Onions</b>	<b>4</b>	<b>Spilled Beverages</b>	<b>4</b>
<b>Alcoholic Beverages</b>	<b>4</b>	<b>Cleaning Compounds</b>	<b>4</b>	<b>Essential Oils</b>	<b>4</b>	<b>Lubricating Oils and Greases</b>	<b>4</b>	<b>Organic Chemicals</b>	<b>4</b>	<b>Spoiled Food Stuffs</b>	<b>4</b>
Amines	2	<b>Coal Smoke</b>	<b>3</b>	<b>Eucalyptole</b>	<b>4</b>	<b>Lysol</b>	<b>4</b>	<b>Ozone</b>	<b>4</b>	<b>Stale Odors</b>	<b>4</b>
Ammonia	2	<b>Combustion Odors</b>	<b>3</b>	<b>Exhaust Fumes</b>	<b>3</b>	<b>Masking Agents</b>	<b>4</b>	<b>Packing House Odors</b>	<b>4</b>	Stoddard Solvent	4
Amyl Acetate	4	<b>Cooking Odors</b>	<b>4</b>	<b>Fabric Finishes</b>	<b>3</b>	<b>Medicinal Odors</b>	<b>4</b>	<b>Paint and Redecorating Odors</b>	<b>4</b>	<b>Stiffness</b>	<b>4</b>
Amyl Alcohol	4	<b>Corrosive Gases</b>	<b>3</b>	<b>Fecal Odors</b>	<b>4</b>	<b>Melons</b>	<b>4</b>	Palmitic Acid	4	Styrene Monomer	4
Amyl Ether	4	<b>Creosote</b>	<b>4</b>	<b>Female Odors</b>	<b>4</b>	Menthol	4	<b>Paper Deteriorations</b>	<b>4</b>	Sulfur Compounds	3
<b>Animal Odors</b>	<b>3</b>	Cresol	4	<b>Fertilizer</b>	<b>4</b>	<b>Mercaptans</b>	<b>4</b>	Paradichlorobenzene	4	Sulfur Dioxide	2
<b>Anesthetics</b>	<b>3</b>	Crotonaldehyde	4	<b>Film Processing Odors</b>	<b>3</b>	Mesityl Oxide	4	Sulfur Trioxide	3	Sulfuric Acid	4
Aniline	4	Cyclohexane	4	<b>Fish Odors</b>	<b>4</b>	Methane	1	<b>Paste and Glue</b>	<b>4</b>	<b>Tar</b>	<b>4</b>
<b>Antiseptics</b>	<b>4</b>	Cyclohexanol	4	<b>Floral Scents</b>	<b>4</b>	Methyl Acetate	3	Pentane	3	<b>Tarnishing Gases</b>	<b>3</b>
<b>Asphalt Fumes</b>	<b>4</b>	Cyclohexanone	4	<b>Food Aromas</b>	<b>4</b>	Methyl Acrylate	4	Pentanone	4	Tetrachloroethane	4
<b>Automobile Exhaust</b>	<b>3</b>	Cyclohexene	4	<b>Formaldehyde</b>	<b>2</b>	<b>Methyl Alcohol</b>	<b>3</b>	Pentylene	3	Tetrachloroethylene	4
<b>Bacteria</b>	<b>3</b>	<b>Dead Animals</b>	<b>4</b>	Formic Acid	3	Methyl Bromide	3	Perchloroethylene	4	Tetrahydrofuran	3
<b>Bathroom Smells</b>	<b>4</b>	Decane	4	Freon	3	Methyl Butyl Ketone	4	<b>Perfumes, Cosmetics</b>	<b>4</b>	<b>Theatrical Makeup Odors</b>	<b>4</b>
Benzene	4	<b>Decaying Substances</b>	<b>4</b>	<b>Fuel Gases</b>	<b>2</b>	Methyl Cellosolve	4	<b>Perspiration</b>	<b>4</b>	<b>Tobacco Smoke</b>	<b>4</b>
<b>Bleaching Solutions</b>	<b>3</b>	<b>Decomposition Odors</b>	<b>4</b>	<b>Fumes</b>	<b>3</b>	Methyl Cellosolve Acetate	4	<b>Persistent Odors</b>	<b>4</b>	<b>Toilet Odors</b>	<b>4</b>
<b>Body Odors</b>	<b>4</b>	<b>Deodorants</b>	<b>4</b>	<b>Gangrene</b>	<b>4</b>	Methyl Chloride	3	<b>Pet Odors</b>	<b>4</b>	Toluene	4
Bromine	4	<b>Detergents</b>	<b>4</b>	<b>Garlic</b>	<b>4</b>	Methyl Chloroform	4	Phenol	4	Toluidine	4
<b>Burned Flesh</b>	<b>4</b>	Dibromethane	4	<b>Gasoline</b>	<b>4</b>	Methyl Ether	3	Phosgene	4	Trichlorethylene	4
<b>Burned Food</b>	<b>4</b>	Dichlorobenzene	4	Heptane	4	Methyl Ethyl Ketone	4	<b>Pitch</b>	<b>4</b>	<b>Turpentine</b>	<b>4</b>
<b>Burning Fat</b>	<b>4</b>	Dichlorodifluoromethane	3	Heptylene	4	Methyl Formate	3	<b>Plastics</b>	<b>4</b>	Urea	4
Butadiene	3	Dichloroethane	4	Hexane	3	Methyl Isobutyl Ketone	4	<b>Poison Gases</b>	<b>3</b>	Uric Acid	4
Butane	2	Dichloroethylene	4	Hexylene	3	Methyl Mercaptan	4	<b>Popcorn and Candy</b>	<b>4</b>	Valeric Acid	4
Butanone	4	Dichloroethyl Ether	4	Hexyne	3	Methylal	3	<b>Poultry Odors</b>	<b>4</b>	Valeric Aldehyde	4
Butyl Acetate	4	Dichloromonofluoromethane	3	<b>Hospital Odors</b>	<b>4</b>	Methylcyclohexane	4	Propane	2	<b>Vapors</b>	<b>4</b>
Butyl Alcohol	4	Dichloronitroethane	4	<b>Household Smells</b>	<b>4</b>	Methylcyclohexanol	4	Propionaldehyde	3	<b>Varnish Fumes</b>	<b>4</b>
Butyl Cellosolve	4	Dichloropropene	4	Hydrogen	1	Methylcyclohexanone	4	Propionic Acid	4	<b>Vinyl Chloride</b>	<b>4</b>
Butyl Chloride	4	Dichlorotetrafluoroethane	3	Hydrogen Bromide	2	Methylene Chloride	4	Propyl Acetate	4	<b>Viruses</b>	<b>3</b>
Butyl Ether	4	<b>Diesel Fumes</b>	<b>3</b>	Hydrogen Chloride	2	<b>Mildew</b>	<b>3</b>	Propyl Alcohol	4	Volatile Materials	3
Butylene	2	Diethyl Ketone	4	Hydrogen Cyanide	3	<b>Mixed Odors</b>	<b>4</b>	Propyl Chloride	4	<b>Waste Products</b>	<b>4</b>
Butyne	2	Dimethylaniline	4	Hydrogen Fluoride	2	<b>Mold</b>	<b>3</b>	Propyl Ether	4	<b>Waterproofing Compounds</b>	<b>4</b>
Butyraldehyde	3	Dimethylsulfate	4	Hydrogen Iodide	3	Monochlorobenzene	4	Propyl Mercaptan	4	<b>Wood Alcohol</b>	<b>3</b>
Butyric Acid	4	Dioxane	4	Hydrogen Selenide	2	Monofluorotrichloromethane	3	Propylene	2	Xylene	4
Camphor	4	Dipropyl Ketone	4	Hydrogen Sulfide	3	<b>Moth Balls</b>	<b>4</b>	Propyne	2		
<b>Cancer Odor</b>	<b>4</b>	<b>Disinfectants</b>	<b>4</b>	<b>Incese</b>	<b>4</b>	<b>Naphtha (Coal tar)</b>	<b>4</b>	<b>Putrefying Substances</b>	<b>3</b>		
Caprylic Acid	4	<b>Embalming Odors</b>	<b>4</b>	Indole	4	<b>Naphtha (Petroleum)</b>	<b>4</b>	Putrescine	4		
Carbolic Acid	4	Ethane	1	Inorganic Chemicals	3	Naphthalene	4	Pyridine	4		
Carbon Bisulfide	3	Ether	3	<b>Incomplete Combustion</b>	<b>3</b>	<b>Nicotine</b>	<b>4</b>	<b>Radiation Products</b>	<b>2</b>		
Carbon Dioxide	1	<b>Ethyl Acetate</b>	<b>4</b>	<b>Industrial Wastes</b>	<b>3</b>	Nitric Acid	3	<b>Rancid Oils</b>	<b>4</b>		
Carbon Monoxide	1										

Some of the contaminants listed in the table are specific chemical compounds. Some represent classes of compounds and others are mixtures and of variable composition. Activated carbons capacity for odor varies somewhat with the concentration in the air, with humidity and temperature. The numbers given represent typical or average conditions and might vary in specific instances.

### The capacity index has the following meaning-

4. High capacity for all materials in this category. One pound takes up about 20% to 50% of its own weight - average about 1/3 (3301/3%). This category includes most of the odor causing substances.

3. Satisfactory capacity for all items in this category. These constitute good applications but the capacity is not as high as for category 4. Adsorbs about 10% to 25% of its weight - average about 1/6 (16.67%).

2. Includes substances which are not highly absorbed but which might be take up sufficiently to give good service under the particular conditions of operation. These require individual checking.

1. Adsorption capacity is low for these materials. Activated Carbon cannot be satisfactorily used to remove them under ordinary circumstances.

\* For the **bolded** compounds, impregnated carbon or activated alumina with KMnO<sub>4</sub> will greatly increase the adsorption ability.