

Activated Carbon Capacity Index Chart Explanation

The capacity index chart lists substances by both chemical and common name. It is a general list of the most common compounds found in the workplace. The efficiency and capacity of activated carbon to adsorb these substances varies with the concentration in the air, relative humidity and temperature. The capacity index numbers are representative under average conditions and may vary under local conditions.

Interpretation

All substances are rated on a scale from 1 – 4.

4. High adsorption capacity. Substances are adsorbed very efficiently. One pound of activated carbon adsorbs about 20% to 50% of its own weight – average about 1/3 (33-1/3%). This category includes most of the odor causing substances.
3. Satisfactory adsorption capacity. Substances are adsorbed well, but not as efficiently as substances rated 4. One pound of activated carbon adsorbs about 10 to 25% of its weight – average about 1/6 (16.7%).
2. Moderate adsorption capacity. Substances are not highly adsorbed but might be adsorbed sufficiently to give acceptable results under the particular operating conditions. These require individual checking
1. Poor adsorption capacity. Substances that are not adsorbed by activated carbon fall into this category

Note: Substances marked with * are not adequately adsorbed by standard activated carbon. It is necessary to use treated (KMN) carbon to increase the adsorption efficiency.**

CARBON CAPACITY INDEX

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Index	Substance	Index	Substance	Index	Substance	Index	
Acetaldehyde***	2	Decane	4	Iodoform	4	Pentylene***	3
Acetic Acid	4	Decaying Substances	4	Irritants	4	Penlyne***	3
Acetic Anhydride	4	Deodorants	4	Isophorone	4	Perchloroethylene	4
Acetone	3	Detergents	4	Isoprene***	3	Perfumes, Cosmetics	4
Acetylene***	1	Dibromomethane	4	Isopropyl Acetate	4	Perspirations	4
Acrolain***	3	Dichlorobenzene	4	Isopropyl Alcohol	4	Persistent Odors	4
Acrylic Acid	4	Dichlorodifluoromethane	4	Isopropyl Ether	4	Pet Odors	4
Acrylonitrile	4	Dichloroethane	4	Kerosene	4	Phenol	4
Adhesives	4	Dichloroethylene	4	Kitchen Odors	4	Phoagene	3
Air-Wick	4	Dichloroethyl Ether	4	Lactic Acid	4	Pitch	4
Alcoholic Beverages	4	Dichloromonofluoromethane	3	Lingering Odors	4	Plastics	4
Amines***	2	Dichloronitroethane	4	Liquid Fuels	4	Pollen	3
Ammonia***	2	Dichloropropane	4	Liquid Odors	4	Popcorn & Candy	4
Amyl Acetate	4	Dichlorotetrafluoroethane	4	Lubricating Oils & Greases	4	Poultry Odors	4
Amyl Alcohol	4	Diesel Fumes & Odors	4	Lysol	4	Propane	2
Amyl Ether	4	Diethylamine***	3	Masking Agents	4	Propionaldehyde***	3
Animal Odors	3	Diethyl Ketone	4	Medicinal Odors	4	Propionic Acid	4
Anesthetics	3	Dimethylaniline	4	Melons	4	Propyl Acetate	4
Aniline	4	Dimethylsulfate	4	Menthol	4	Propyl Alcohol	4
Antiseptics	4	Dioxane	4	Mercaptans	4	Propyl Chloride	4
Asphalt Fumes	4	Dipropyl Ketone	4	Mesityl Oxide	4	Propyl Ether	4
Automobile Exhaust	3	Disinfectants	4	Methane	1	Propyl Mercaptan	4
Bathroom Smells	4	Embalming Odors	4	Methyl Acetate	3	Propylene***	2
Bleaching Solutions***	3	Ethane	1	Methyl Acrylate	4	Propyne***	2
Body Odors	4	Ether	3	Methyl Alcohol	3	Purefying Substances	3
Borane	3	Ethyl Acetate	4	Methyl Bromide	3	Putrescine	4
Bromine	4	Ethyl Acrylic	4	Methyl Buty Ketone	4	Pyridine	4
Burned Flesh	4	Ethyl Alcohol	4	Methyl Cellosolve	4	Radiation Products	2
Burned Food	4	Ethyl Amine***	3	Methyl Cellosolve Acetate	4	Rancid Oils	4
Burning Fat	4	Ethyl Benzene	4	Methyl Chloride	3	Resins	4
Butadiene	3	Ethyl Bromide	4	Methyl Chloroform	3	Reodorants	4
Butane	2	Ethyl Chloride	3	Methyl Ether	3	Ripening Fruits	4
Butonone	4	Ethyl Ether	3	Methyl Ethyl Ketone	4	Rubber	4
Butyl Acetate	4	Ethyl Formate	3	Methyl Formate	3	Sauerkraut	4
Butyl Alcohol	4	Ethyl Mercaptan	3	Methyl Isobutyl Ketone	4	Sewer Odors	4
Butyl Cellosolve	4	Ethyl Silicate	4	Methyl Mercaptan	4	Skatole	4
Butyl Chloride	4	Ethylene***	1	Methylcyclohexane	4	Slaughtering Odors	3
Butyl Ether	4	Ethylene Chlorhydrin	4	Methylcyclohexanol	4	Smog	4
Butylene***	2	Ethylene Dichloride	4	Methylcyclohexone	4	Soaps	4
Butyne***	2	EthyleneOxide	3	Methylene Chloride	4	Smoke	4
Butyraldehyde***	3	Essential Oils	4	Mildew	3	Solvents	3
Butyric Acid	4	Eucalyptole	4	Mixed Odors	4	Sour Milks	4
Camphor	4	Exhaust Fumes	3	Mold	3	Spilled Beverages	4
Cancer Odor	4	Fertilizer	4	Momochlorobenzene	4	Spoiled Foodstuffs	4
Caprylic Acid	4	Film Processing Odor	3	Monofluorotrichloromethane	4	Stale Odors	4
Carbolic Acid	4	Fish Odors	4	Moth Balls	4	Stoddard Solvent	4
Carbon Disulfide	4	Floral Scents	4	Naptha (Coal Tar)	4	Stuffiness	4
Carbon Dioxide***	1	Fluorotrichloromethane	3	Naptha (Petroleum)	4	Styrene Monomer	4
Carbon Monoxide	1	Food Aromas	4	Napthalene	4	Sulfur Dioxide***	2
Carbon Tetrachloride	4	Formaldehyde***	2	Nicotine	4	Sulfur Trioxide***	3
Cellosolve	4	Formic Acid	3	Nitric Acid***	3	Sulfuric Acid	4
Cellosolve Acetate	4	Fuel Gases	2	Nitro Benzenes	4	Tar	4
Charred Materials	4	Fumes	3	Nitroethane	4	Tarnishing Gases***	3
Cheese	4	Gangrene	4	Nitrogen Dioxide***	2	Tetrachloroethane	4
Chlorine	3	Garlic	4	Nitroglycerine	4	Theatrical Makeup Odors	4
		Gasoline	4				

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Chlorobenzene	4	Heptane	4	Nitromethane	4	Tobacco Smoke Odors	4
Chlorobutadiene	4	Heptylene	4	Nitropropane	4	Toilet Odors	4
Chloroform	4	Hexane	3	Nonane	4	Toluene	4
Chloronitropropane	4	Hexylene***	3	Octalene	4	Toluidine	4
Chloropicrine	4	Hexyne***	3	Octane	4	Trichlorethylene	4
Cigarette Smoke Odors	4	Hospital Odors	4	Odorants	4	Trichloroethane	4
Citrus & Other Fruits	4	Household Smells	4	Onions	4	Turpentine	4
Cleaning Compounds	4	Hydrogen	1	Organic Chemicals	4	Urea	4
Combustion Odors	3	Hydrogen Bromide***	2	Ozone	4	Uric Acid	4
Cooking Odors	4	Hydrogen Chloride***	2	Packing House Odors	4	Valeric Acid	4
Corosive Gases	3	Hydrogen Cyanide***	2	Paint & Redecorating Odors	4	Valeraldehyde	4
Creosole	4	Hydrogen Fluoride***	2	Palmitic Acid	4	Varnish Fumes	4
Cresol	4	Hydrogen Iodide***	3	Paper Deteriorations	4	Vinegar	4
Crotonaldehyde	4	Hydrogen Salenide***	2	Paradichlorobenzene	4	Vinyl Chloride	3
Cyclohexane	4	Hydrogen Sulfine***	3	Paste & Glue	4	Waste Products	3
Cyclohexanol	4	Incense	4	Pentane	3	Wood Alcohol	3
Cyclohexanone	4	Indole	4	Pentanone	4	Xylene	4
Cholohecene	4	Iodine	4				