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Product Information

Activated charcoal

Product Number **C2889**
Store at Room Temperature

Product Description

This product is used to prepare columns to treat ethidium bromide liquid waste. It can also be used in a batch method to treat this waste. To treat 100 ml of waste buffer solution (up to 10 µg/ml of ethidium bromide), 300 mg of powdered activated charcoal is added to the solution. The mixture is incubated for 1 hour at room temperature, with periodic mixing. The solution is then filtered through a Whatman No. 1 filter and the filtrate can be discarded. The filter and activated charcoal can then be sealed in a plastic bag as ethidium bromide waste and disposed of according to local environmental safety regulations.

Norit carbons are furnished in washed, untreated and chemically neutralized types. The washed carbons are generally used for aqueous solutions where the lowest possible soluble ash content is desirable. Washed carbons are also recommended for fine chemical and pharmaceutical operations where a very high purity is necessary. The untreated carbons are for general technical applications, particularly in the field of organic solutions; they have a very high selective adsorption efficiency. Chemically neutralized carbons are used in cases where a neutral pH is essential.

This product is an untreated, granular carbon with a particle size of 0.85 - 2.4 mm (8 - 20 mesh). The surface area, as calculated from the Brunauer, Emmett, Teller equation from nitrogen adsorption and expressed on a dry basis, is 600 - 800 m²/g for this

product. A water extract of a suspension of this product will have a pH of 9 - 11. This product is made from peat bog that is kiln burned until there is nothing left but carbon. The "activated" refers to the heating process in the kiln that makes the material porous, therefore helping to remove all impurities. This material is not capable of burning.

Activated charcoal can be expected to adsorb from 1 - 30% of its own weight, depending on the kind of carbon, the type of adsorbate, and the method of treatment; 10% is often assumed for rough estimations.

Granular carbon such as this product is typically used in columns or towers. It is typically used to purify both gases and liquids and generally, the carbon has to be regenerated for subsequent uses. It is also used to remove steroid hormones from serum.¹

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

References

1. Steroid Hormones: A Practical Approach. Green, B. and Leake, R. E., eds., IRL Press, (Oxford: 1987, pages 213-214).

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