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I-ACVON



PRODUCT DESCRIPTION

I-ACVON consists of activated carbon from invasive weed called as *Imperata Cylindrica* or commonly known as cogon grass. *Imperata cylindrica* is abundant and easily found in our country and has not beneficial to our community. I-ACVON has unique properties that are large surface area, high degree of surface reactivity, universal adsorption effect and favorable pore size. The effectiveness of the I-ACVON as an absorbent is attributed to its properties. I-ACVON was produced by chemical activation which consume low energy and low cost. The activation process helps to open up the carbon pores. The pore opened will trap odors, chemicals and gases. Activated carbon is extremely effective at odour control. The tremendous surface area of activated carbon (1 teaspoon = a football field) quickly absorb the unpleasant scents, not just masks them. Thus, while other odour control techniques just cover up the smells, activated carbon usually eliminates them permanently. **No scents makes good sense!**

PROBLEM STATEMENT

Air fresheners have been used to mask odours since antiquity. Air fresheners introduce fragrance into the air of interior spaces either as droplets which transition to vapour, or as the molecules of fragrance ingredient directly evaporating from a source. Fragrance diffuses into the air to mask the unpleasant smell by introducing a specific odours. However, many air fresheners employ carcinogens, volatile organic compound, toxins that hazardous and can aggravate health risk to humans.

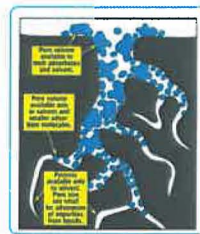
PRODUCT ADVANTAGES

- Improving odour and taste.
- I-ACVON removes odours, not masking it.
- **Effective:** Widely used by the military and heavy industry for chemical and odour control.
- **Economical:** Low cost and environmental friendly.
- **Reliable:** Simple, yet effective product that is more reliable and easier to maintain.
- **Safe:** Does not create or aggravate respiratory problems, which is safer for the user.
- **Versatile:** Ideal for occupied space, building and can be used in any type of environment.
- **Responsible:** Does not create new pollutants.

NOVELTY

- It comes from invasive weed and abundant that has no specialties in our community.
- Absolutely green product.

PROCESS FLOW



Absorption Mechanism

PRODUCT PERFORMANCES

	Palm kernel shell based AC	EFB based AC	I-ACVON
pH value	6.5 - 7.5	4.0-4.5	6.5 - 7.5
Iodine no. (mg/g)	800-950	200-300	1100-1200
BET surface area (m ² /g)	315.05	706.61	732.626
Pore size	macropore	mesopore	mesopore

*AC=Activated Carbon

COMMERCIAL APPLICATIONS

- Very suitable for indoors such as chemical stores, refrigerators, shoe racks, dry kitchen cabinet, rooms, cupboards and many more.
- Acts as air filter for occupied space and trapped the organic impurities gas while allowing others to pass through it.



INDUSTRIAL PARTNER

