



GREEN STAR



HEMP HURD/CELLULOSE FLUID RECOVERY STUDY

STUDY

Requirement (lbs.) to absorb 1 gallon of HEAVY CRUDE:

Source: Pollution Technology Review No. 150

K-Sorb® Particulate = 2.2 lb.

Clay = 8.3 lb.

Diatomite = 6.0 lb.

Fly Ash 5.9 lb.

Hemp Hurd/Cellulose 0.83 lb

Sludge Stabilization/Liquid Waste Solidification

Due to the superior absorbency of Hemp Hurd, it is an excellent choice for solidifying liquids and stabilizing sludge. Product and labor requirement are reduced over clay, and the amount of costly waste requiring disposal is reduced.

Disposable as Fuel

Hemp Hurd has high heat content (8,000 -10,000 btu/lb.), qualifies under RCRA for cost-effective and permanent disposal as fuel through incineration. Inorganic absorbent such as clay and fly ash do not; making their disposal means more limited and costly than those of hemp hurd



CONCLUSION

On Hemp hurd and hemp cellulose:

These are a very exciting group of by-products from the production of Hemp. In the above referenced material hemp (hurd/cellulose) is studied for its absorbency and heating value. Currently one of the major players in fluid recovery and remediation is K-Sorb®Particulate. This product until now has been a major player as it blows away the competition in its ability to require less and absorb more than some of the traditional absorbency materials (Clay, Diatomite, FlyAsh).

Hemp hurd/powder is stepping in to provide an even better alternative. A hemp hurd/cellulose mix will require less than half of the required amount of K-Sorb®Particulate. In simple words.... It only takes about 1/3 hemp hurd/cellulose mix to absorb the same amount of fluid as one of the leading industry products.

Not only is hemp hurd/powder a better alternative for its naturally ability to recover fluid, it also:

- ✔ Absorbs in seconds making clean up quick (test performed with heavy crude and water) Absorption time range was within seconds of application to recover absorbed fluid and hurd/powder mix.
- ✔ is a sustainable/renewable product.
- ✔ is less expensive.
- ✔ gives you the ability to offset carbon output.
- ✔ The heating value is comparable to other products available which makes incineration under RCRA a very viable option.

The above info is just the tip of the iceberg. There are huge and varied applications for Hemp hurd/cellulose and other by-products.

SOURCES

The high level of water absorption in hemp hurds is determined by their particular structure. The hemp hurds layered structure forming by fibrils, microfibrils and fibers is porous and has a high exchange surface.”

“water content increases with prolonged time of immersion”



{<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5455568/>}

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