

## Oil Sorbent Test Methods

The following are the test we use to evaluate various oil absorbents vs. SorbaSolv™.

The Paint Filter Test is the EPA method of determining free liquid in waste to be land buried and is essentially a drainage test. It consists of placing a quantity of the waste in a paint filter (the paper funnel) with a gauze strainer at the bottom and observing any liquid released after a one-hour stand. Since there is no compression, we regard it only to evaluate liquid retention under standing conditions.

**Water Repellency:** This is to evaluate the degree of water wetting of a sorbent, which will determine its ability to float over a period of time. Place about 1 gram of sorbent in a 250 ml glass beaker containing 150 ml distilled water. Push the sorbent to the bottom of the beaker using a section of windscreen. Allow to stand for 12 hours and remove screen allowing sorbent to rise to surface. Evaluate by observing amount of fiber settling and sorbent wetting. SorbaSolv™ shows NO fiber settling or wetting. Most olefin fibers show from 10% to 100% wetting and settling.

**Actual Oil Absorption:** Place 50 grams of SAE 30 nondetergent motor oil in a 250 ml beaker. Add sorbent with stirring to produce a gel state. Allow to stand one hour. Place mass in paint filter with clean beaker to catch drainage. Weight beaker to determine amount of released oil and deduct from original 50 grams. Results are expressed on basis of sorbent weight to oil weight. SorbaSolv™ results are 2.2 grams per 50 grams of oil. This is expressed as 22.7 times SorbaSolv™ weight in oil. Most olefins absorb 12-13 times their weight in oil.

**Oil in Water Retention:** Place the mass from the oil absorption test in 400 ml of distilled water in a 500 ml beaker. Allow to stand 12 hours and observe. Note any oil into water release and color change of mass. SorbaSolv™ will release no oil and retain its original dark color. Observe height of mass vs. water line. Most of the SorbaSolv™ is at or above the water line. Olefins release up to 15% of absorbed oil and show slight through considerable lightening of color from water absorption. They float below the water line or sink completely.

**Reusability:** Squeeze as much of the oil from the absorbent as possible (we use a mop wringer) and reevaluate as above for both absorption and oil in water retention. SorbaSolv™ will give results of about 95% of the originals for 10 cycles of wringing. The rate of pick up will be slower. Olefins retain little or none of their original absorbency and pick up water at a greatly increased degree.