

# 3M™ Chemical Sorbents

## **Use**

For control of spills of certain hazardous liquids.

## **Product Description**

3M™ Chemical Sorbents are made from inert, synthetic fibers principally polypropylene and polyester. They are available in a wide range of formats and are lightweight and nominally dust-free. They have a high absorption capacity which minimizes the amount of waste for disposal.

## **Color**

Yellow – highly visible.

## **Selection Guide**

- **Folded** – Combines four formats in one product. It is perforated every 16 inches (40 cm) and can be unfolded to be used as booms, pillows, sheets or rolls.
- **Minibooms** – Generally on-land applications to contain and adsorb spills.
- **Pillows** – Used for bulk absorption of oil on land or water. Particularly useful in drains to act as interceptors.
- **Pads** – A highly adaptable format. They can be used on water to pick up oil covering large surface areas and in wiping applications.
- **Particulate** – For fast coverage and adsorption of spills.
- **Rolls** – For fast coverage of large surface areas of water, they can be easily torn to length. Also used as a mat to keep shorelines or banks clean and to place used sorbents upon.
- **Spill Kits and Response Packs** – May contain different types of sorbents and temporary disposal bags. Compact for easy storage and quick response.

## **Typical Liquids Adsorbed**

3M chemicals sorbents are suitable for adsorbing a wide range of liquids including certain acids, bases, coolants, petroleum based fluids, non-aggressive chemicals and aqueous based solutions.

### **Limitations of Use**

3M recommends that a compatibility test with the liquid of interest be carried out prior to using the sorbent. For use in temperature over 60C it is essential that such a compatibility test is made prior to use. Do not use 3M chemical sorbents with the following concentrated chemicals as there is a risk of degradation: oleum, chlorosulfonic acid, liquid bromine, fuming nitric acid, chromic acid, sulfuric acid and hydrogen peroxide.

### **Precautions**

3M chemical sorbents are not in themselves hazardous products, however, they take on the characteristics of the liquids they adsorb. Adequate precautions should be taken when handling or storing hazardous / flammable materials and appropriate personal protective equipment should be worn. Users should be informed of the risks incurred in use, storage and disposal of used sorbents.

### **Disposal**

Dispose of used sorbents only in accordance with local and national regulations. Disposal companies should be consulted for their recommendations.

### **Waste Minimization**

3M recommends that waste streams should be minimized wherever possible. 3M sorbents promote minimization by only being a small part of the total waste. In addition where laws allow, 3M sorbents can be disposed of by incineration yielding less than 0.2% ash (ASTM D-482). The high energy value of the sorbents is also favorable for incineration and waste-to-fuel systems.

### **Absorption / Sorbency**

The sorbent capacity quoted in the table below is based on testing per ASTM F 726 “Standard Test Method for Sorbent Performance of Adsorbents.” In brief, the sorbent samples were immersed in 20 weight motor oil, drained and weighed. In the 1981 version of the standard, samples are immersed for a variable period of time in an attempt to make sure the sorbent is saturated. The sorbent is then drained horizontally. In the 2006 version of the standard, samples are immersed for 15 minutes and then most types are drained vertically. Capacity according to both versions of the standard is presented. Even though the sorbents have not changed, the test methods have, and thus the numbers are different. **These numbers are nominal; there will naturally be variability in sorbent performance.** Capacity and speed of absorption will differ depending on the liquid’s polarity, surface tension and viscosity. Ambient temperature may also affect results. Therefore, these numbers may not be directly applicable to your specific use.

| <b>Product Number</b>   | <b>Size</b>  | <b>Number / Case</b> | <b>Case Shipping Weight lb (kg)</b> | <b>Nominal capacity per case ASTM F 726-81 gallons (liters)</b> | <b>Nominal capacity per case ASTM F 726-06 gallons (liters)</b> |
|-------------------------|--|----------------------|-------------------------------------|---|---|
| <b>Folded</b>           |  |                      |                                     |   |   |
| C-FL550DD high capacity | 5 in x 50 ft (12 cm x 15 m)                        | 3                    | 18 (8.2)                            | 31.5 (119)  | 26.5 (100)  |
| <b>Minibooms</b>        |  |                      |                                     |   |   |
| P-200                   | 3 in diameter x 4 feet (7.5 cm diameter x 121 cm)  | 12                   | 12.7 (5.8)                          | 12 (45)   | 14 (53)   |
| P-208                   | 4 in diameter x 8 feet (7.5 cm diameter x 243 cm)  | 6                    | 13.3 (6)                            | 12 (45)   | 14 (53)   |
| P-212                   | 4 in diameter x 12 feet (7.5 cm diameter x 365 cm) | 4                    | 12.8 (5.8)                          | 12 (45)   | 14 (53)   |
| <b>Pillows</b>          |  |                      |                                     |   |   |
| P-300                   | 7 in x 15 in (17 cm x 38 cm)                       | 16                   | 14.3 (6.5)                          | 8 (30)  | 9.5 (36)  |
| <b>Pads</b>             |  |                      |                                     |   |   |
| C-PD914DD               | 9.5 in x 14.5 in ( cm x cm)                        | 150                  | 11.9 (5.4)                          | 23.5 (89)   | 17.5 (66)   |
| P-110                   | 11 in x 13 in (28 cm x 33 cm)                      | 200                  | 14.3 (6.5)                          | 17 (64)   | 13.5 (51)   |
| <b>Particulate</b>      |  |                      |                                     |   |   |
| P-500                   | NA   | 1                    | 13.5 (6.1)                          | 14 (53)   | 23 (87)   |
| <b>Rolls</b>            |  |                      |                                     |   |   |
| C-RL15150DD             | 15.25 in x 150 ft (39 cm x 45 m)                   | 1                    | 13.4 (6.1)                          | 31 (117)  | 24 (91)   |
| C-RL38150DD             | 38 in x 150 (96 cm x 45 m)                         | 1                    | 27 (12)                             | 76 (287)  | 60.5 (229)  |
| <b>Spill Kits</b>       |  |                      |                                     |   |   |
| C-SKFL5                 | C-FL550DD as 26 ft (7.9 m)                         | 3 rolls              | 7.5 (3.4)                           | 15 (57)   | 13.5 (51)   |
| C-SKFL31                | C-FL550DD 17 in x 19 in (43 cm x 48 cm)            | 2 rolls<br>30 pads   | 20 (9.1)                            | 31 (117)  | 26 (98)   |
| SRP-Chem                | P-200<br>P-110                                     | 9 mbms<br>30 pads    | 12.7 (5.8)                          | 12 (45)   | 12.5 (47)   |

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