

Centre de documentation, de recherche et d'expérimentations sur les pollutions accidentelles des eaux

Centre of Documentation, Research and Experimentation on Accidental Water Pollution

Updated: April 2023

LIST OF UNIVERSAL SORBENTS FOR USE ON LAND

TYPE OF SORBENTS (LOOSE, SPAGHETTI)

The table below provides a non-exhaustive list of the universal sorbents tested according the **NFT 90-361** norm by the *Cedre* laboratory with water, diesel (viscosity: 10 cP at 20°C) and/or light Arabian crude oil topped at 110°C (viscosity: 42-45 cP à 20°C) for their efficiency. It specifies:

- → their sorption capacity, enabling the comparison of product performances
- → the composition of the sorbent material, an essential element for defining the product's storage conditions and disposal methods (e.g. incineration)

Only the products which meet the following criteria are listed:

Sorption capacity: Water and oil sorption capacity expressed in weight greater than 1

			Sorbing capacity			
Product Name	Composition	Appearance	on water	on diesel oil	on BAL 110	Producer
			Weight			
Capsorb	diatomaceous earth	beige brown granules	1.3	-	1.5	ZEP Industries
GKSORB	vegetal (water hyacinth)	beige fibrous	3.4	-	12.4	Green keeper Africa
Plastisorb	synthetic (polymethacrylimide)	white flakes	14.3	-	12.1	M. Montagner

NOTE ON THE USE OF DATA PROVIDED IN THE ABOVE TABLE

The sorption capacity in weight is the retention capacity at saturation of the sorbent, measured for water, diesel and/or light Arabian crude oil topped at 110°C). For each product, it is possible to determine the theoretical price per treated liter, by combining the retention capacity in weight (sorbent capacity) with the price of the sorbent.

The price per treated liter of oil is a good criterion to compare the efficiency of various sorbents from an economic point of view.

Beyond this criterion, for obvious operational reasons, it is important to evaluate the sorbent capacity in volume, which is the volume of sorbent needed to recover a given volume of pollutant. This can be calculated by taking into account the apparent density of the product in its packaging, available from the supplier, and the sorbent capacity in weight.

note: some manufacturers might modify the composition or the nature of the sorbent they market; in case of doubt, do not hesitate to consult *Cedre* which keeps a sample of each product that is tested; this will allow, at least, a visual comparison to be made. Additionally it is always possible to order a control test of the product.

This procedure of approval is carried out without prejudice to the procedures prescribed under the French law n°77-771 of 12 July 1977, as amended by French Law n°82-905 of 21 October 1982 relating to the control of chemicals and its implementary provision.

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If the data provided by *Cedre*, valid for a three year period, is not updated by the manufacturer or retailer, *Cedre* cannot guarantee that the product is still available for purchase or that is still presents the same characteristics as the sample tested.









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LIST OF UNIVERSAL SORBENTS FOR USE ON LAND

TYPES B & C (SHEETS, ROLLS or MAT)

The table below provides a non-exhaustive list of the universal sorbents tested according the **NFT 90-361** norm by the *Cedre* laboratory with water, diesel (viscosity: 10 cP at 20°C) and/or light Arabian crude oil topped at 110°C (viscosity: 42-45 cP à 20°C) for their efficiency. It specifies:

- → their sorption capacity, enabling the comparison of product performances
- → the composition of the sorbent material, an essential element for defining the product's storage conditions and disposal methods (e.g. incineration)

Only the products which meet the following criteria are listed:

Sorption capacity: Water and oil sorption capacity expressed in weight greater than 1

			Sorbing capacity			
Product name	Composition	Appearence	on water	on diesel oil	on BAL 110	Producer
			Weight			
UPG-73GEN	Grey polypropylene	two-ply pad, coverstock on both sides	17.1	-	19.2	Haleco

NOTE ON THE USE OF DATA PROVIDED IN THE ABOVE TABLE

The sorption capacity in weight is the retention capacity at saturation of the sorbent, measured for water, diesel and/or light Arabian crude oil topped at 110°C). For each product, it is possible to determine the theoretical price per treated liter, by combining the retention capacity in weight (sorbent capacity) with the price of the sorbent. The price per treated liter of oil is a good criterion to compare the efficiency of various sorbents from an economic point of view.

Beyond this criterion, for obvious operational reasons, it is important to evaluate the sorbent capacity in volume, which is the volume of sorbent needed to recover a given volume of pollutant. This can be calculated by taking into account the apparent density of the product in its packaging, available from the supplier, and the sorbent capacity in weight.

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