

# SOLUTIONS FOR OIL POLLUTION

## PEWAS Sorb

PEWAS Sorb is an innovative agent for the removal of liquid organic substances and petroleum products. It is a selective absorbent, which when in contact with contamination absorbs the liquid and retains it in its structure and not on its surface. There is no risk of secondary contamination. PEWAS Sorb enables the removal of a wide range of organic liquids from water surfaces and solid surfaces much more efficiently compared to other methods.

## Benefits

- **The absorption capacity is 10 times higher** compared to conventional sorption materials
- **The contamination is being absorbed into the inner structure** not on the surface
- **The absorbed contamination is not repeatedly released into the environment**, which minimizes the risk of secondary contamination. It is not necessary to use degreasing agents
- **It inhibits the evaporation** of organic substances and thus reduces the risk of subsequent ignition
- **It is selective – it does not absorb water** during absorption from water surfaces. It does not increase in volume; it means that the liquidation following the intervention is easier, faster and less costly
- **During the intervention a smaller amount of the absorbent is necessary** in comparison with traditional absorbents (more economical, better storability, etc.)
- **Universal use** both for water surfaces and solid surfaces

## Use



Contamination of water surfaces



Contamination of solid surfaces



Limitation of spread of hazardous substances

## Available forms

- **In powder form** for solid surfaces and water surfaces
- **In form of pillows and strips**
- **In form of emergency spill kits** (containing sorbent, absorption pillows, agents for removing contamination, collecting vessel)

## Comparison of sorption efficiency

### More efficient sorption without water absorption

PEWAS Sorb has a 98% absorption efficiency of oil substances compared to other absorbents (50-80%). At the same time it almost does not absorb water, which makes the removal of contamination easier and less costly.

### Sorption on solid surfaces:

#### 99% efficiency of PEWAS Sorb

In the sorption of oil contamination on solid surfaces PEWAS Sorb reaches an efficiency of up to 99%, while other absorbents have an efficiency range between 50 and 80%.

Applied sorbent	Sorption on water surfaces		Sorption on solid surfaces
	Volume of absorbed oil substances (% wt.)	Water content in sorbent (% wt.)	Rate of collected oil substance
Aluminosilicate	50-70 %	30-50 %	50-60%
Milled polypropylene	70-80 %	20-30 %	75-80 %
<b>PEWAS Sorb</b>	<b>90-98 %</b>	<b>2-10 %</b>	<b>99 %</b>

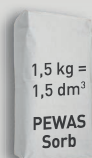
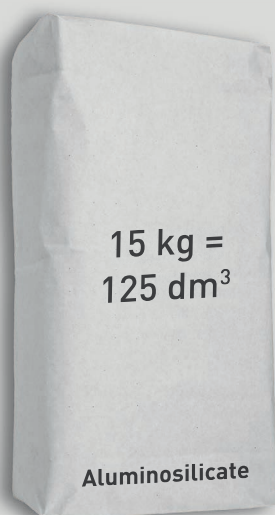
## Evaporation of combustible during intervention

### Elimination of dangerous fumes with the use of PEWAS Sorb

The use of PEWAS Sorb significantly reduces the evaporation of flammable light oil substances and thus increases fire safety during intervention. The degree of evaporation of dangerous fumes with the use of PEWAS Sorb is by 50% lower than with other absorbents.

Applied sorbent	Gasoline evaporation rate during sorption		
	Gasoline content in sorbent after 10 min.	Gasoline content in sorbent after 30 min.	Gasoline content in sorbent after 65 min.
Aluminosilicate	29 %	11 %	0 %
Milled polypropylene	40 %	21 %	0 %
<b>PEWAS Sorb</b>	<b>68 %</b>	<b>53 %</b>	<b>35 %</b>

## Amount of sorbent needed to remove a 10 kg oil stain



### The necessary amount is 10 times smaller

In order to remove the same contamination from the water surface (a 10 kg oil stain) up to 15 kg of aluminosilicate are needed. When PEWAS Sorb is applied only 1,5 kg suffice. Converted into litres we can speak of a volume that is 80 times smaller, i.e. it reduces the cost of transportation and storage.

## Economic comparison

Taking into consideration the necessary amount of sorbent, its volume during the absorption of the contamination, increased cost and time for its removal, the overall cost with the use of PEWAS Sorb in the absorption of contamination from water surface is up to 3 times lower than in the case of aluminosilicate.

## Do you have any questions? Please contact us:

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The PEWAS Company specializes in ecological and innovative chemistry, consulting, research and development of new solutions for our clients in several sectors of industry, agriculture and transport.