MAJOR BENEFITS

ENVIRONMENTALLY FRIENDLY OIL AND CHEMICAL ADSORBENT

- Hydrophobic wax cotton
- Product adsorbs no water
- Only pollutants are adsorbed
- Pollutants are kept durably
- Free of dust working

VERY HIGH AND FAST ADSORPTION

- Adsorbs 6.55 times of its own weight
- Certified by DEKRA Industrial GmbH
- Registered in “list of approved absorbents” (Liste der geprüften Ölbindemittel)

PREVENTION AGENT

- Product does not decay by environmental influences
- Floats durably even when saturated
- Helps to minimize and to avoid damages
DEUREX PURE is suitable for hydrophobic liquids, for oils and chemicals as well as alcohols.

1 kg of DEUREX PURE adsorbs 6.55 l of oil (DEKRA certified) very fast due to great surface of 3 m²/g.

DEUREX PURE keeps the contaminants, does not adsorb any water and remains buoyant even when saturated.

DEUREX PURE can be removed without any residues left. It is recyclable and reusable.
DEUREX PURE is suitable for hydrophobic liquids, for oils and chemicals as well as alcohols and surfactants.

The water has been dyed blue for better differentialibility.

The alcohol (Isopropanol) has been dyed blue for better visibility.

Water, contaminated with diesel

Add DEUREX PURE

Just wait

Clean water

1 kg of DEUREX PURE adsorbs 6.55 l of oil (DEKRA certified) very fast due to great surface of 3 m²/g.

DEUREX PURE keeps the contaminants permanently, does not adsorb any water and remains buoyant even if saturated.

DEUREX PURE can be removed without any residues left. It is recyclable and reusable.

Water*, contaminated with Toluol

Add DEUREX PURE

Just wait

Clean water

Isopropanol**

Add DEUREX PURE

Just wait

Complete adsorption

* The water has been dyed blue for better differentialibility.

** The alcohol (Isopropanol) has been dyed blue for better visibility.
APPLICATIONS

WATER TREATMENT
- Purification plants
- Filter technology
- Coalescence separator
- Bilge water oil removal

EMERGENCY MANAGEMENT
- Fire fighters
- Oil spill response
- Flood management
- Protection of buildings

ENVIRONMENTAL TECHNOLOGY
- Soil decontamination
- Remediation of contaminated sites

INDUSTRIAL APPLICATIONS
- Refineries
- Oil-bearing machines
- Car washes
- Filling stations
- Oil platforms

WIND POWER PLANTS
- Oil safety collar protects against oil damages

WATER CONSERVATION AREAS
- Lakes and rivers
- Rain storage reservoir
- Barrage
- Watergates
- Ports and Marinas

RECYCLING CONCEPT

WASTE AVOIDANCE
The high adsorption ratio reduces the amount of absorber down to 1/6 compared to commercial granules. This causes much less waste.

RECOVERY OF 100 LITERS SPILLED OIL

SEPARATION
Various methods allow the separation of adsorbed pollutant from DEUREX PURE. Both materials can be used again or can be disposed.

DISPOSAL
A typical oil-PURE-compound has a heating value of 45 MJ/kg. It is very attractive for thermal disposal.

WASTE OIL ORDINANCE

§ 2 - Reprocessing Priority
(1) The reprocessing of waste oils enjoys priority over other waste management processes insofar as no objective technological and economical restraints including those of an organizational kind preclude this.

ONE BAG GRANULES
= 20 kg, difficult and dusty handling
= 0.5 Liters/kg are absorbed
= 200 kg, 10 bags à 20 kg
Granules are required

ONE BAG DEUREX PURE
= 5 kg, easy handling
= no dust emission
= 6.55 Liters/kg are adsorbed
= 15 kg, 3 bags à 5 kg
PURE are required
## TEST REPORTS

### 2.4. OIL-BINDER REQUIREMENT*

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>UNIT</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil-binder requirement:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) oil binder / 100g oil</td>
<td>g</td>
<td>19</td>
</tr>
<tr>
<td>(ml) oil binder / 100 ml oil</td>
<td>ml</td>
<td>201</td>
</tr>
<tr>
<td>1 l oil binder binds</td>
<td>g oil</td>
<td>410</td>
</tr>
<tr>
<td>Calculated value</td>
<td>% by vol.</td>
<td>201</td>
</tr>
<tr>
<td>1 litre of oil binder binds</td>
<td>litre</td>
<td>0.50</td>
</tr>
<tr>
<td>1 kg of oil binder binds</td>
<td>litre</td>
<td>6.55</td>
</tr>
<tr>
<td>1 kg of oil binder binds</td>
<td>kilograms</td>
<td>5.40</td>
</tr>
</tbody>
</table>

Classification criteria

<table>
<thead>
<tr>
<th>Oil binder</th>
<th>Oil-binder requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>max. 350 % by vol.</td>
</tr>
<tr>
<td>Type II</td>
<td>max. 600 % by vol.</td>
</tr>
<tr>
<td>Type III</td>
<td>max. 350 % by vol.</td>
</tr>
</tbody>
</table>

* Extract from official test report of DEKRA Industrial GmbH

We undergo independent assessments. DEUREX PURE is certified by DEKRA Industrial GmbH and listed in the “List of approved absorbents”. Do not hesitate to compare us.

DEUREX PURE is also certified in other countries. Reports will be handed out upon request.

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* Extract from official test report of DEKRA Industrial GmbH
URKUNDE
über die Erteilung des PATENTS
10 2010 022 437

Begründung:Ölbindemitel und Bodenmittel für Ölmittel, deren Herstellung sowie deren Verwendung

Präsentationen:
Wachs-Chemie Elsteraue e.K.
Elsteraue, Deutschland

Erlassen:
Antrag der Nachfrager

Tag der Antragstellung:

Unterschrift:
Präsidenten des Deutschen Patent- und Markenamts

Datum:

Unterschrift:
Präsidenten des Deutschen Patent- und Markenamts
OIL SAFE COLLAR (OSC) INCLUDING DEUREX PURE

- In cooperation with Rotor Rope GmbH

ROTOR ROPE

- The safe and simple system to avoid oil spills in wind turbines
- Permeable for condensate and rain water
- Adsorbs hydraulic and gear box oil in case of technical malfunction
- To minimize downtime
- To reduce costs for cleaning
- To avoid expensive cleanup of oil spill and environmental damages
CLEANING UP THE OCEANS FROM PLASTIC DEBRIS

The environmental organization One Earth - OneOcean has set up the goal, to cleanup waters from plastic waste, but also from oil and pollutants. Vast carpets of plastic waste are floating on the oceans already today, the biggest one in the Pacific is as large as Central Europe. The seas will be completely full of refuses in a few years, if pollution continues at the same speed.

In a first step, the plastic waste is collected by specially designed equipment on the seas, sorted and shredded. Separation and recycling of the waste is carried out on land. In a second step, the collected plastic debris will be reconverted into oil, directly on board of oil tankers. One ton of plastic allows to recover about 900 liters of oil.

ONE EARTH – ONE OCEAN e.V. participates as the only international NGO in cleanup operations of the Nigerian Government in the Niger Delta.
PRODUCTS

- PLASTIC BUCKETS
- PAPER BAGS
- NET BOOMS
- FLEECE BOOMS
- MATS, FLEECE CLOTH
- DUCT COVERS
- LEAKAGE SETS
- NET BLOCKS AND NET BAGS
- OIL SPILL RECOVERY TRAILER
PLASTIC BUCKETS

- Perfect to dose DEUREX PURE
- The loose material agglutinates upon contact with oils and chemicals
- This makes skimming of the adsorbed material very easy
- Usable as storage container
- Usable to contain and to dispose the adsorbed material

SMALL BUCKETS

29 cm x 25 cm x 25 cm = 1 kg DEUREX PURE
60 items per pallet

LARGE BUCKETS

40 cm x 40 cm x 37 cm = 3 kg DEUREX PURE
24 items per pallet
PAPER BAGS

- One bag of DEUREX PURE weighs only 5 kg, one bag filled with granules weighs 20 kg or more
- Bag dimensions according to commercial adsorbents
- Higher adsorption ratio with less material
- The loose material agglutinates upon contact with oils and chemicals
- This makes skimming of the adsorbed material very easy

80 cm x 40 cm x 20 cm = 5 kg DEUREX PURE
21 bags per pallet, single carton
18 bags per pallet, shipping carton
NET BOOMS

- DEUREX PURE covered by a stable net
- Fastest adsorption due to direct contact with DEUREX PURE
- Carabiner allow easy linking to barriers (2 pieces on 300 cm booms, 4 pieces on 600 cm booms)
- Integrated rope increases durability
- Booms float durably even when saturated

<table>
<thead>
<tr>
<th>Size</th>
<th>Carton Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 cm x 8 cm</td>
<td>16 items per carton / 8 cartons per pallet</td>
</tr>
<tr>
<td>300 cm x 8 cm</td>
<td>10 items per carton / 8 cartons per pallet</td>
</tr>
<tr>
<td>600 cm x 8 cm</td>
<td>5 items per carton / 8 cartons per pallet</td>
</tr>
<tr>
<td>120 cm x 10 cm</td>
<td>10 items per carton / 8 cartons per pallet</td>
</tr>
<tr>
<td>300 cm x 10 cm</td>
<td>4 items per carton / 8 cartons per pallet</td>
</tr>
<tr>
<td>600 cm x 10 cm</td>
<td>2 items per carton / 8 cartons per pallet</td>
</tr>
<tr>
<td>120 cm x 15 cm</td>
<td>30 items per carton / 2 cartons per pallet</td>
</tr>
</tbody>
</table>
FLEECE BOOMS

- The packaging to dam up
- Developed for water applications
- DEUREX PURE in this packaging unites the benefits of our adsorbent with those of a barrier and those of an adsorbent fleece
- The cover is an extremely robust and adsorbent fleece
- Carabiner allow easy linking to barriers
- Booms float durably even when saturated

300 cm x 15 cm
25 items per carton / 2 cartons per pallet
**MATS AND FLEECE CLOTH**

- The packaging against leakages and for preventative purposes
- DEUREX PURE covered by a thin fleece
- Very fast adsorption and distribution due to greater surface area

**MATS**

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity per carton</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 cm x 80 cm</td>
<td>50 items</td>
</tr>
</tbody>
</table>

**FLEECE CLOTH**

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity per carton</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 cm x 40 cm</td>
<td>100 items</td>
</tr>
</tbody>
</table>

**FLEECE ROLLS**

<table>
<thead>
<tr>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 cm x 25 m</td>
</tr>
</tbody>
</table>
DUCT COVERS

- Protection of water intakes against liquid pollutions
- Available in round and square shape
- Cover is made of robust fleece material
- Bails allow easy handling

DUCT COVERS ROUND

| 60 cm diameter | 4 items per carton |

DUCT COVERS SQUARE

| 50 cm x 50 cm | 4 items per carton |
LEAKAGE SETS

- Protection against hazardous materials
- Fast and efficient adsorption
- Great surface area
- Big carry handles allow easy handling
- Cover is made of robust fleece material
- Including gloves and bin bag

LEAKAGE SETS

70 cm x 50 cm
25 items per carton / 4 cartons per pallet
NET BLOCK AND NET BAG

· Mesh allows direct contact with DEUREX PURE
· Extremely fast adsorption
· Stable carry handles ease the handling

NET BLOCK

- 50 cm x 50 cm x 20 cm = 5 kg DEUREX PURE
- 30 items per carton / 2 cartons per pallet

NET BAG

- 30 cm x 60 cm = 4 kg DEUREX PURE
- 25 items per carton / 2 cartons per pallet
OIL SPILL RECOVERY TRAILER

- Mobile solution of PURE products
- Reduces response time when oil spills occur
- Complete PURE assortment is immediately available
  - Loose material in paper bags and plastic buckets
  - Mats and fleece cloths
  - Booms
  - Leakage kits
- Extensive equipment for immediate use
- Individual configuration possible
<table>
<thead>
<tr>
<th>RATE OF ADSORPTION</th>
<th>FIELD OF APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>very fast</td>
<td>street/ground</td>
</tr>
<tr>
<td>fastest</td>
<td>water</td>
</tr>
</tbody>
</table>

- LOOSE PRODUCT
- NET BLOCK AND NET BAG
- NET BOOM
- FLEECE BOOM
- DUCT COVERS
- LEAKAGE SETS
- MATS AND FLEECE CLOTHS
<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
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<tbody>
<tr>
<td>FLEECE BOOMS</td>
<td>The 3in1-product to dam up.</td>
</tr>
<tr>
<td>PAPER BAGS</td>
<td>For everyone who needs great amounts of the loose product.</td>
</tr>
<tr>
<td>NET BOOMS</td>
<td>DEUREX PURE covered by an extremely stable net.</td>
</tr>
<tr>
<td>PLASTIC BUCKETS</td>
<td>Perfect to dose DEUREX PURE.</td>
</tr>
<tr>
<td>MATS AND DUCT COVERS</td>
<td>The packaging against leakages and for preventative purposes.</td>
</tr>
<tr>
<td>LEAKAGE SETS</td>
<td>The product to protect against hazardous materials.</td>
</tr>
<tr>
<td>NET BLOCKS AND NET BAGS</td>
<td>The stable packaging for all water applications.</td>
</tr>
<tr>
<td>DEUREX PURE</td>
<td>The oil and chemical adsorbent.</td>
</tr>
<tr>
<td>PLASTIC BUCKETS</td>
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<td>The stable packaging for all water applications.</td>
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**SAFETY DATA**

Further information on all mentioned products can be found in the Material Safety Data Sheets. All current toxicological and ecological values and properties are listed in the MSDS.

The MSDS provide information on hazard class designations, safety measures, exact handling and storing as well as information on disposal regulations.

**PLEASE NOTE**

All data are based on our current knowledge and inform about our products and their applications. There is no assurance for certain properties and their suitability for certain applications. The customer is responsible to care for the necessary safety measures and to ensure the appropriate handling of the product. Existing industrial property rights have to be considered.

An unobjectionable quality is assured within the scope of our general terms and conditions.