

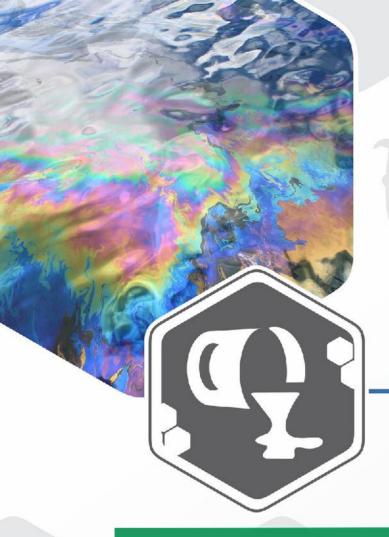
Applied Environmental Technology

www.ecotechafrica.co.za









OILVAC PRODUCTS

OILVAC is a range of oil and chemical absorbent products that offer rapid absorption & remediation of environment spills from hydrocarbon and chemicals, both on water and land. It is a field-proven industrial absorbent that is an economical, fast-acting solution to an environmental problem that could otherwise take years to resolve.

The **Ecotech Africa Range** consists of a choice of five different types of organic fibre absorbents, used for the absorption of hazardous environmental spill with the added advantage of bioremediation of contaminated soil.

Product Range



- - Organics Blend Absorbent
- ✓ ⑥ILVACSILVER

Organics Blend Absorbent (with added oil degrading microbes)

- ✓ ⑥ILVAC GOLD
 - Coco Peat Absorbent
- **✓ ®ILVAC PLATINUM**

Peat Moss Absorbent

How does OilVac Work?

Ecotech Africa Absorbents comprises of a matrix of capillaries exposing a large surface area to the hydrocarbon or chemical spill. The high surface tension within these capillaries enables the organic fibre within the product range to hold between 5 to 14 times its own weights in liquids. This gives it the ability to absorb spills which have occurred over vast areas on land and water application.

It will not leach or discharge absorbed pollutants, making it clean and easy to handle. The Ecotech Africa range of products' high vapour suppression capacity **reduces combustion** vapours, eliminating the chance of explosion.









The entire Ecotech Africa product range is non-abrasive, non-toxic, non-leaching, non-carcinogenic, and in its natural state is already biodegraded.

It can also be used by anybody – it requires minimal protective clothing or specialised training technicians to handle and dispose of the product.

Who uses OilVac

- Airports
- Car Manufacturers
- Construction Sites
- Environmentalists
- Mining
- Nuclear Power Plants
- ✓ Spill Contractors / Waste
- ✓ Haulers
- Storage Facilities

- Factories
- Fire Departments
- Food Industry
- Government
- Oil Refineries
- Plant Manufactures
- ✓ Petroleum Industry
- ✓ Pipeline Companies
- Ports and Harbours

- ✓ Haz Mat Teams
- Oil Supply Companies
- ✓ Machine Shops
- Marinas
- Power Plants
- Railroads
- Service Garages / Stations
- ✓ Shipyards
- ✓ Transit Authorities

Absorption Rate

Product absorption ratings will vary according to uniformity, composition and the specific gravity (SG) of liquids to be absorbed.

Product Amount Required

The amount of product that needs to be used will depend on the outside temperature of the area, plus the viscosity of the hydrocarbons and chemicals to be absorbed.





ABSORPTION CAPACITY: 1:5 10 KG: 50L | 15KG: 75L | 30KG: 175L

How it works?

Its absorbent ability is due to its highly porous ultra-structure, together with its surface properties. This makes it highly effective in absorbing hydrophobic substances. The physical structure of the matrix of capillaries allows the product to absorb hydrocarbons.



Ingredients

OlLVAC – Bronze is made from a proprietary blend of Coco Peat (Cocos Nucifera Peat) which is a cellulose organic fibre, plus two species of pine bark: Pinus Elliottii and Pinus Patula.

This traps the pollutant within the fibre, preventing leaching. The pine bark within this product acts as an absorbent with a naturally occurring micro-organism that assists in the degradation of the pollutant. When used, OILVAC—Bronze remains environmentally friendly throughout the process. It does not change its structure, and it does not release into the environment the pollutants it has just absorbed. This differentiates it from other products which use sunflower husks, wood sawdust, paper, straw, clay or certain cotton bases, which all have the potential to release the hydrocarbons.



COILVACSILVER NATURAL ORGANIC OIL & CHEMICAL SPILL ABSORBENT FIBRE (with oil digesting microbes)

Ingredients

OILVAC – Silver is made from a proprietary blend of Coco Peat (Cocos Nucifera Peat), which is a cellulose organic fibre, plus two species of pine bark: Pinus Elliottii and Pinus Patula. Added to this are multiple strains of favourable aerobic and anaerobic microbes.

How it works?

The OILVAC – Silver contains oil degrading microbes, which retain organic materials and reject inorganic ions. These **tough aerobic and anaerobic microbes** are absorbed on the surface of the organic absorbent fibre and lie dormant until they come into contact with water.

The micro-organisms then have the ability to degrade a wide range of petroleum hydrocarbons, producing harmless by-products such as carbon dioxide and water. The pine bark within this product acts as an absorbent and microbial biomass. The native South African microbes found on the surface of this bark helps decompose organic matter and digest hydrocarbons/oils.



COCO PEAT OIL & CHEMICAL ABSORBENT FIBRE

Ingredients

OILVAC – Gold is manufactured from 100% Coco Peat (Cocos Nucifera Peat), a cellulose organic fibre.

How it works?

The absorbency is based on its highly porous ultra-structure. The physical structure of the matrix of capillaries, allows the product to absorb hydrocarbons, allowing the pollutant to remain within the product without leaching. Even traps flammable fumes, assisting with fire control at spills. OILVAC - Gold has a natural ability to easily and quickly absorb spillages by using its oleophilic qualities to reduce the mess to a clean, safe, workable area again. The key to the success is the unique box like molecular structure of every Crum sized speck of the fibres. This presents a huge surface tension area with capillary action to absorb oils and other liquids into its cellular structure, whilst retaining non-skid ability.

The structure permits a 36% Air Filled Porosity (AFP) that allows it to float on any liquid to be absorbed. Will act immediately on contact, absorb 90% of its capacity in the first few minutes, which is critical for a quick response clean up. The product will continue to absorb over a long period and not allow any leachback.

Furthermore, OILVAC – Gold retains its consistency so that it will not turn to "mush". This allows the oil-saturated product to be scooped up or raked from the surface of the water relatively easily. It is light in weight and creates very little dust, even when it is scattered over vast distances on hard surfaces.



ABSORPTION CAPACITY: 1:8
50L:3.5KG | 75L:5.5KG | 100L:7.5KG | 200L:13KG



OILVACPLATINUM

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PEAT MOSS OIL & CHEMICAL ABSORBENT FIBRE

Ingredients

OILVAC Platinum – Peat Moss is manufactured from 100% Natural Premium Sphagnum Peat Moss (Van Post Grade H1-H3) that is activated by a proprietary air-dried and heat-treated process.

How it works?

The specialized heat treatment and air-drying process reduces the moisture content to approximately 10-14%; at this level the peat fibre's water retention feature changes. It becomes hydrophobic (repels water) and absorbs hydrocarbons. The reversal of the hydrophobic properties is caused by the release of natural wax from within the cell during the proprietary process.

The inherent capillary action of the activated peat provides a powerful wicking action that encapsulates oils, solvents, heavy metals, pesticides, herbicides and all other organic chemicals on contact. It suppresses vapours and absorbs hydrocarbons on land or water in dry or wet conditions. It will not leach or discharge absorbed pollutants, making it clean and easy to use.

OILVAC — Peat Moss Absorbent is hydrophobic, non-abrasive, non-toxic, non-leaching, non-carcinogenic, and in its natural state is already biodegraded. It can also be used by anybody — it doesn't require any protective clothing or specialised training technicians to handle and dispose of the product.

Absorption Capacity by Product Range

✓ OILVAC – Bronze & Silver: 1:5

✓ OILVAC – Gold : 1:8

OILVAC – Platinum : 1:14



ABSORPTION CAPACITY: 1:14

50L:7.5KG | 75L:10KG | 100L:15KG | 150L:20KG | 200L:25KG











Absorbs the following Liquids

- ✓ Acetone
- ✓ Acetonitrile
- ✓ Acrolein
- ✓ Alcohol's
- Allylchloride
- Amylacetates
- Animal Fats
- Avgas
- ✓ Benzine
- ✓ Blood
- → Bromoform
- Bromoform Methyl
- ✓ Bunker Oil
- ✓ Butanol
- ✓ 2-Butanone
- ✓ Butyl Acetates
- ✓ Butric Acid
- ✓ Canola Oil
- Carbon Disulfide
- ✓ Carbon
- ✓ Tetrachloride
- Caustic Soda
- ✓ Chlorobenzene
- ✓ Chloroform
- ✓ Corn Oil
- Crude Oils
- Cutting Oils
- Cyclohexane
- Cyanide Wash
- Dichlorobenzene
- ✓ Diesel Oils

- Dyes
- Ethanol
- Ethyl Benzene
- Ethyl Ether
- Ethylene Glycol
- Fish Oil
- Gasoline
- Heavy Metals
- Heptanes
- Herbicides
- ✓ Hexanes
- ✓ Exane (97%)
- ✓ Inks (Oil Based)
- ✓ Isobutanol
- ✓ Isoprene
- Isopropanol
- ✓ Jet Fuels
- ✓ JP/7
- Methanol
- Methyl Keytone
- Methyl Phenol
- Motors Oils
- Naphthalene
- Nitrobenzene
- Paints (Oil Based)
- ✓ Paraffin's
- Pentane
- Peanut Oil
- ✓ Petrol
- Petroleum Ether
- Printer Inks

- Phenol
- Tetrahydrofuran
- → Toluene
- Varsol
- Vegetable Oil
- Vinyl Acetate
- Vinyl Chloride
- Xylenes
- 2-Nitroanilines
- Trichlorophenol
- Triethylamine
- Varnishes
- ✓ Styrene
- Sulphuric Acid
- ✓ Trichchloroethylene
- → Phenol (48% in Acetone)
- Scintillation Liquid
- Silicone Oil (100cs)
- ✓ Kerosene/ Paraffin's
- Methylene
- Cholride
- ✓ Pentachlorophenol
- Dichchloroethene
- ✓ Tetrachloroethylene
- Hexachloroethane
- Hexachlorobenzene
- HexachlorobutadieneTetrachloroethane
- Acetonecyanohydrin
- ✓ Propanol









A specific feature of the products, OILVAC – SILVER is its bioremediation capability. This is a **microbiological process** whereby multiple strains of aerobic and anaerobic bacteria and enzymes convert harmful environmental contaminants into **harmless by-products** such as carbon dioxide and water. The organic substrate is permeated with these microbes, which are held in a dormant state until exposed to water. When this happens they are then activated and begin their normal life cycle. This life cycle may continue over a period of 30 to 90 days.

Bioremediation through the use of Degrading Microbes

Bioremediation is a waste-management technique that uses micro-organisms to remove and/or detoxify pollutants from a contaminated area. When carefully conducted, bioremediation is a cost-effective, practical method to remove hydrocarbons and other organics from polluted sites. Bioremediation also protects and preserves the environment by allowing living organisms to degrade or transform hazardous organic contaminants into neutral by-products. OILVAC products contain microbes that generate these desired biochemical changes. The products are used in the agricultural, aqua- cultural, environmental and industrial domains. This broad application is made possible thanks to our technology which has been developed using the inter-disciplinary sciences of microbiology, biochemistry, organic chemistry, fermentation and pharmaceutics. The biodiversity of our products gives them a unique ability to be effective for many different operating conditions. OILVAC products support life in soil and facilitate bioremediation. This is because all the necessary nutrients (macro- and micro- elements) are present – it contains natural (native) as well as added (non-native) microbiology. These nutrients sustain the microorganisms in OILVAC, which then enables them to multiply in areas that would otherwise be sterile. This supports new plant growth.

Disposal Methods

Incineration – Many coal generated fossil fuel plants could use absorbed product saturated with hydrocarbon in their manufacturing process. This makes it an excellent alternative fuel. Landfill - In accordance with regulatory authority guidelines. Landfill will not allow encapsulated hydrocarbon to escape into the environment. This is of great value to companies with an environmental conscious agenda, since the product range is natural organic absorbent containing no chemicals or other additives. Land Farming – Bioremediation saves valuable landfill space. Reclaim once unsalvageable soils. Hydrocarbons will biodegrade 25% faster. The hydrocarbon will become nutrients for the oil digesting microbes by rehabilitating the soil. Once land farming has encapsulated the hydrocarbon it will not release it into the environment.

Simple to Use and Clean



Identify and isolate spill Always follow workplace procedures for clean-up and disposal. Protect yourself from the spill, wear correct safety equipment.



Block off drains with absorbent boom preventing migrating liquids entering the storm water drains.



Apply absorbent with a plastic spark proof shovel to the perimeter of the spill to form a bund and stop spill migration.





Continue to apply absorbent working to the centre until spill s completely covered and no ree liquid is visible. Allow absorbent to absorb spill.





Sweep with a hard bristle broom working dry absorbent over spill area to remove all surface oil or chemical.





Shovel the contaminated absorbent with a plastic park proof shovel & place a 160micron heavy duty ecovery bag or wheelie bin. is accordance with local regulations.

Oil Spill Management Products - Oil Absorbent Polypropylene



ABSORBENT PADS

- √ 200 x 50cm x 40cm
- √ 100 x 50cm x 40cm

ABSORBENT ROLL

√80cm x 40m

ABSORBENT SCATTER

- √2.5KG:50L
- √5KG: 100L
- √50KG BALES: 1000L

Oil Spill Management Products - Oil Absorbent Polypropylene

ABSORBENT FIBRE BOOMS

- √2m x 125mm
- √4m x 125mm
- √4m x 200mm

RAIL TRACK MATS

- √ 1000mm x 500mm
- √2000mm x 1000mm

POLYPROPYLENE MARINE BOOMS

- √3m x 200mm
- √4m x 125mm (external safety)
- ✓ net & fixing hooks

ABSORBENT FIBRE PILLOWS

- √ 400m x 400mm
- √ 500mm x 500mm
- √ 1000mm x 1000m

POLYPROPYLENE BOOM

- √2m x 125mm
- √4m x 125mm
- √4m x 125mm

POLYPROPYLENE PILLOWS

- √400mm x 400mm
- √ 500mm x 500mm
- ✓ 1000mm x 1000mm

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ABSORBENT FIBRE SOCKS

- √ 1.2m x 80mm
- ✓2m x 80mm
- ✓4m x 80mm

POLYPROPYLENE SOCKS

- **√**2m x 80mm
- √4m x 80mm





OIL & FUEL SPILL KITS

Oil & Fuel Spill Kits consist of a collection of items to be used in case of a spill, leak or other discharge of petroleum based liquids on hard surfaces.

Spill kits are developed for prompt response and easy cleanup of accidental hazardous spills. Available in a Wheelie Bin or Portable PVC Carry Bags, with absorbency from 20L to 220L. (Higher absorbency spill kits available on request)

WHEELIE BIN SPILL KIT: OIL

WHEELED BIN

ABSORBENT (OILVAC BRONZE)

ABSORBENT PILLOW

ABSORBENT BOOM

HD DISPOSABLE BAGS & TIES

SPARK PROOF SHOVEL & HARD BRISTLE BROOM

DUST PAN & BRUSH SET

PPE SET

240LABSORBENCY

- 240 LITER
- 2 X 15KG
- 2 X 40CM X 40CM
- 2 X 2M X 125MM
- 5 X 130 MICRON BAGS





PORTABLE SPILL KIT: OIL

PVC CARRY BAG

ABSORBENT (OILVAC BRONZE)

ABSORBENT PADS

ABSORBENT SOCK

HD DISPOSABLE BAGS & TIES

DUST PAN & BRUSH SET

PPE SET

40LABSORBENCY

- 500MM X 500MM X 200MM
- 2 X 12LT
- 10 X 50CM X 40CM
- 2 X 1.2M X 80MM
- 2 X 130 MICRON BAGS

Chemical Spill Management Products (Chemical Absorbent Polypropylene)



CHEMICALABSORBENTROLL

CHEMICAL ABSORBENT SCATTER

√80cm x 40m

√2.5 KG:50L

CHEMICALABSORBENTPADS

₹5KG:100L

√200 x 50cm x 40cm

√50KG: 1000L

Chemical Spill Management Products (Chemical Spill Containment)

POLYPROPYLENE BOOMS

POLYPROPYLENE SOCKS

POLYPROPYLENE PILLOWS

√2m x 125mm

√ 1.2m x 80mm

√40cm x 40cm

√4m x 125mm

√2m x 80mm

√50cm x 50cm

√4m x 200mm

√4m x 80mm

√ 1000mm x 1000mm



CHEMICAL SPILL KITS

The chemical spill management range is available as booms, socks, pillows, absorbent pads or absorbent scatter.

You can buy these kits in the form of wheelie bins and carry bags.

The active ingredient in the chemical spill management range is

polypropylene.

WHEELIE BIN SPILL KIT: CHEMICAL

WHEELED BIN

ABSORBENT SCATTER

ABSORBENT PILLOW

ABSORBENT BOOM (CHEMICAL POLYPROP SCATTER)

SPARK PROOF SHOVEL & HARD BRISTLE BROOM

HD DISPOSAL BAGS & TIES

DUST PAN & BRUSH SET

PPE SET

240L ABSORBENCY

- 240 LITER

- 1 X 100 LITER

- 2 X 40CM X 40CM

• 2 X 2M X 125MM

• 5 X 130 MICRON BAGS



PORTABLE SPILL KIT: CHEMICAL

PVC CARRY BAG

ABSORBENT (CHEMICAL POLYPROP SCATTER)

ABSORBENT PADS

ABSORBENT SOCK

HD DISPOSAL BAGS & TIES

DUST PAN & BRUSH SET

PPE SET

40LABSORBENCY

- 500MM X 500MM X 200MM
- •2 X 2KG
- 10X 50CM X 40CM
- •2 X 1.2M X 80MM
- •2 X 130 MICRON BAGS



Miscellaneous Products

SPILL PLATFORMS - PLASTIC

- √ 1200mm x 600mm
- ✓ 1200mm x 1200mm

PERSONAL PROTECTION

- ✓SAFETY GOGGLES:
- ✓ NITRILE GLOVES:
- **✔**DUSTMASK

DRIPTRAYS-STEEL

- √ 750mm x 450mm x 90mm
- √ 1060mm x 600mm x 140mm

DEGREASERS

- ✓ FAT-OFF
- ✓ HEAVY DUTY BIODEGRADABLE ALKALINE
- ✓ FLOOR CLEAN-L
- ✓ HEAVY DUTY DEEP CLEANING
- **✓ PINE-QUAD**
- ✓ DISINFECTANT SANITIZER CLEANER

SPILL PLATFORMS - STEEL

- √ 1200mm x 600mm
- √ 1200mm x 1200mm

SAFE DISPOSAL BAGS

- √ 1200mm x 600mm x 100

Microns

WHEELIE BINS 240L & 130L

✓BLACK; RED; WHITE;

SPARK PROOF PLASTIC SHOVELS

√ 1000mm x 320mm x 260mm

DRIP TRAYS - PLASTIC

- √750mm x 450mm x 90mm
- √1060mm x 600mm x 140mm

PVC CARRY BAGS

- √ 100cm x 50cm x 40cm
- √50cm x 50cm x 20cm
- √50cm x 50cm x 40cm



POLYPROPYLENE ABSORBENT COMPATIBILITY:



		V 1	
NAME			
Acetaldehyde		/•	•
Acetic Acid		٠	
Acetic Acid Amyl Ester		•	•
Acetic Anhydride		•	٠
Acetone	/ •	•	•
Acetyl Chloride		•	•
Acrolein	/ •/	•	
Acrylic Acid		•	
Acrylic Emulsions		•	٠
Acrylonitrile	1//	•	•
Allyl Alcohol		•	•
Aminobenzoic Acid		•	1
Ammonia (anhydrous)	4	٠	•
Ammonium Hydroxide		•	•
Amyl Acetate		•	
Amyl Alcohol		•	•
Aniline		•	•
Aqua Regia			•
Aviation Fuel	•	•	٠
Benzene	•	٠	٠
Benzoic Ether	•	•	•
Benzonitrile		•	٠
Benzyl Alcohol		•	•
Benzyl Chloride		• 1	•
Boric Acid		٠	
Brake Fluid	•	•	•
Bromine		•	•
Butyl Acetate	•	٠	٠
Butyl Alcohol	•	•	•
Butylamine		•	٠
Butyric Acid	•	•	
Calcium Hydroxide	•	•	•
Carbonic Acid		٠	
Carbon Disulphide			•
Carbon Tetrachloride		•	•

NAME			
Castor Oil		•	•
Chloracetic Acid		٠	
Chlorbenzene	AN	٠	(•)
Chlorine			•
Chlorine Soda		٠	10
Chloroform	•	•	•
Chlorosulphuric Acid		•	
Chlorox (Full Bleach)		•	
Chromic Acid		٠	
Citric Acid		•	
Corn Oil	•	•	•
Cottonseed Oil	•	٠	•
Cresol	•	•	•
Cyclohexane	•	•	•
Detergents		•	•
Dichlorbenzol	•	•	•
Diethyl Amine	•	•	•
Diethyl Ether	•	•	•
Di-Nitrobenzene	•	•	•
Dioxan		•	•
Disooctyl Phthalate	•	•	•
Ether	•	•	•
Ethyl Acetate	•	•	•
Ethyl Alcohol	•	•	•
Ethyl Chloride	•	•	٠
Ethyl Ether	•	•	•
Ethylene Glycol	•	•	•
Ethyl Propianate	•	•	•
Formaldehyde		•	•
Formic Acid		•	
Fuel Oil	•	•	•
Galvanic Liquids		•	•
Gearbox Oil	٠	•	•
Glacial Acetic Acid		•	•
Glycerol		•	•

POLYPROPYLENE ABSORBENT COMPATIBILITY :

OIL ONLY		CHEMICAL	MAINTENANCE
	C. Address		

	OVA.		
NAME			
Heptane	•	•	•
Hexane	•	•	٠
Hydrazine		•	٠
Hydrochloric Acid		•	•
Hydrofloric Acid		•	•
Hydrogen Cyanide	•	•	•
Hyrogen Peroxide		•	٠
Isobutyl Alcohol	•	•	٠
Isobutyric Acid	•	•	٠
Isopropyl Acetate	Λ -	•	•
Isopropyl Alcohol	•	•	٠
Isobutyric Acid		•	
Isopropyl Acetate	•	•	
Isopropyl Alcohol	•	•	•
Kerosene	•	•	٠
Keytones	•	•	٠
Linseed Oil	•	•	٠
Lubricating Oil	•	•	٠
Magnesium Oxide		•	•
Methyl Alcohol	•	•	٠
Methyl Chloride	•	•	•
Methyl Ether	•	•	•
Methyl Ethyl Ketone	•	•	٠
Methylmethacrylate		•	•
Methyl Propionate	•	•	•
Milk	•	•	•
Mineral Oil		•	•
Mineral Spirits		•	٠
Motor Oil	•	•	•
Naphtalene		•	•
Nitric Acid		•	
Nitrobenzene Acid		•	
Nitrobenzol	-	•	•
Nitrotoluen	•	•	
Octane			•
Oleic Acid		•	•
Olive Oil			•
Paraffin			•
Perchlorethylene			•
reichioreuryiene			•

NAME			
Petroleum Ether	•	•	•
Phenol		٠	٠
Phenyl Formic Acid		٠	
Phosphoric Acid		•	
Potassium Hydroxide		•	
Propanol		•	•
Propionic Acid	•	•	•
Propyl Alcohol	•	•	•
Propylene Gycol	•	•	•
Quinoline		•	•
Resorcinol		•	•
Saccharose		•	•
Salt Solutions (metallic)		•	•
Silicone Oil	•	•	•
Silver Nitrate		•	•
Soap Solutions		•	•
Sodium Bicarbonate		•	•
Sodium Chloride		•	•
Sodium Hydroxide		•	•
Sodium Nitrate		•	•
Stannic Chloride		•	•
Starch		•	•
Styrene	•	•	•
Sucrose		•	•
Sulphuric Acid		•	
Synthetic Motor Oil	•	•	•
Tannic Acid		•	
Tin Chloride		•	•
Toluene	•	•	٠
Transformer Oil		•	•
Trichlorethylene	•	•	٠
Triethylene Glycol	•	•	•
Turpentine	•	•	•
Urine			•
Vinegar			•
Vinyl Acetate	•		•
Water			
Xylene			





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OTHER SERVICES & PRODUCTS

WASH BAYS | EFFLUENT SEPARATION PROCESSES | WASTE MINIMIZATION AND OPTIMIZATION ASBESTOS REMOVAL | WATER PURIFICATION AND TREATMENT WASTE WATER TREATMENT PLANTS (BIOLOGICAL SEWAGE TREATMENT)









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