

# OFFSHORE SOLUTIONS

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### PRODUCT RANGE

Accommodation Cleaning Products

Boiler Water Treatment Products

Dosing Equipments

Evaporator Treatment Products

Potable water treatment Products

Reverse Osmosis Treatment Products

Tank Cleaning Products Ballast Water Treatment Products

Commissioning Cleaning Products

Engine and Engine Room Cleaning Products

Fuel Oil Systems Treatment Products

Refrigerants

Seawater Systems Products

Test Kits

Bilge Water Systems Products

Deck & Superstructure Cleaning Products

Engine Cooling Water Treatment Products

Oil Spill Dispersants & Kits

Reverse Osmosis Cleaning Products

Sewage Systems Products





As Ertek Chemicals, we supply a wide range of cleaning and treatment chemicals to cover the essential needs of offshore rigs, installations and supply vessels.

#### **CLEANING SOLUTIONS**

#### **DECK & SUPERSTRUCTURE CLEANING**

It is important to clean any contamination such oil, grease, and dirt for safety reasons in order to avoid slippery surfaces that can cause accidents and hazards. Cleaning of deck and superstructure will ease the preservation work to be executed on the unit in question. It is also important to remove the salt layer, rust stains on deck and superstructure to maintain the paint coating in good condition and to reduce corrosion.

Application	Recommended Product
Cleaning of drill floor and deck	ER-APC
Rig cleaner for use on deck, tanks, engine rooms, drilling equipment (general purpose ceaner)	ER-APC
Heavy duty degreasing, removing oil, wax, sludge and mud	ER-OGR
General purpose cleaner	ER-APC
Rust removal and brightener	RUST REMOVER
Cleaning of drill floor, deck and soot	ER-APC AQUA
Degreaser for deck and machinery	OIL GREASE REMOVER
Surface degreasing outside and for use in ultrasonic part and filter cleaners	ER-APC
Detergent	ER-APC

#### **ACCOMMODATION CLEANING**

In order to maintain a healthy environment free from dangerous viruses, bacterias, moulds, and bugs, it is needed to clean the accommodation areas.

Application	Recommended Product
Toilet descaler for removal of urine scale in restrooms/bathroms etc.	ERBIO-TDS
Toilet, sink and shower cleaner with biological active liquid formulation	ERBIO-TD
Sewage waste treatment in concentrated biologically active powder form	ERBIO-BC 850 POWDER
Accommodation multi-purpose cleaner	ER-APC
Floors, titles, paint work, furnishes, plastics, vinyl and sanitary areas cleaning, general cleaning	ER-APC
Hand sanitization	PURE CLEAN
Kitchen general purpose cleaner with heavy duty alkaline agents for oven & grill cleaning	ER-AC
Elimination and avoid trasmission of bacteria, fungi and viruses	REEFER CLEANER
Heavy duty hand cleaner	ERTEM-G
Dishwash	ER-SOAP LIQUID





#### ENGINE, ENGINE ROOM, AND TANK CLEANING

It is important to maintain and clean engine room machinery to prevent any ignition risks of oil and soot, and to provide efficiency.

Application	Recommended Product
Heavy duty degreasing, removing oil, wax, sludge and mud	ER-OGR
Heavy duty degreasing, removing oil, wax, sludge and mud	TANK CLEANER EXTRA
Cleaning for machinery spaces	CLEAN BREAK
Carbon deposits removal	CARBON REMOVER
Rig cleaner for use on deck, tanks, engine rooms, drilling equipment, general purpose cleaner	ER-APC
Degreaser for deck and machinery	OIL GREASE REMOVER
Water based degreaser for deck and machinery	ER-APC
Acid containing descaling accelerators and corrosion-inhibitors	DESCALING LIQUID
Electrical equipment cleaner	ER-ELECTRIC SD
Descaler that removes rust and scale	DESCALEX POWDER
Cleaning agent for air cooler cleaning	ECC-19
Commissioning cleaning for boiler and cooling water system	ERCLEAN-WT
Cleaning of separator discs	SEPERATOR DSC CLEANER
Organic matter degradation	ERBIO- BC 850 POWDER

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#### WATER SOLUTIONS

All water systems, whether with sea or fresh water will be subject to various risks of deterioration during an installation's dormant storage period. In order to provide energy savings by preventing scab and corrosion which may occur within the water station and prevent abrupt stops, blockage, and provide both time and money savings without requirement of extra cleaning process during periodical maintenance we recommend following products.

#### **BOILER WATER TREATMENTS**

Application	Recommended Product
Boiler pre-treatment	ERCLEAN WT
Multifunctional	EK-5
Oxygen scavenger	EC-2DH
Boiler coagulant	BOILER COAGULANT
Boiler water test kit for EC- 2DH	DEHA TEST KIT
Boiler water test kit for EK- 5	BOILER WATER TEST KIT

#### **ENGINE COOLING WATER TREATMENTS**

Application	Recommended Product
Cooling pre-treatment	ERCLEAN-WT
Nitrite-based corrosion inhibitor	ES-3D
Organic-based corrosion inhibitor	ERTREAT-COOLANT ALL
Test kit for ES-3D	COOLING WATER TEST KIT
Antifreeze	ANTIFREEZE

#### WATER PRODUCTIONS SYSTEMS

We recommend wet treatment for Reverse Osmosis systems and membranes while recommending draining and dry treatment for the evaporators.

Application	<b>Recommended Product</b>
RO alcaline cleaner	ERBRANE-BC
RO acidic cleaner	ERBRANE-ACF
RO water treatment/ scale control	ERBRANE
Evaporator water treatment	EVAPORATOR TREATMENT

#### ERTEK CHEMICAL PRODUCTS & SERVICES

#### **BILGE WATER TREATMENTS**

Application	Recommended Product
Bilge water treatment	ER-FLOC BW

#### **POTABLE WATER SYSTEMS**

Application	Recommended Product
Potable water treatment	ERFOS-3 PWT
Potable water treatment / Chlorine	SODIUM HYPOCHLORITE
Potable water treatment / Chlorine	CALCIUM HYPOCHLORITE
Potable water treatment / pH Adjuster	HYDROCHLORIC ACID
Potable water treatment / pH Adjuster	ERAY
Potable water test	PWT TEST KIT
pH checking	ph PAPER
Chlorine checking	CHLORINE TEST KIT

#### **SEAWATER COOLING SYSTEMS**

There are wet and dry storing options of seawater systems. For wet preservation one can opt for two approches, fresh water preservation and sea water preservation.

For wet preservation, the systems are isolated, sea water drained and then flushed and filled with fresh water that is treated with an inhibitor, ES-3D.

For sea water preservation, challanges releated to fouling and corrosion need to be addressed. The sea chests should be blanked off, with the addition of Erbiocide- SW to prevent for both marine growth fouling and corrosion.

For dry preservation, the systems are blanked off and the system drained and dried. The only part that remains wet is the condenser which again should be treated with a suitable corrosion inhibitor, EC-2.

Application	Recommended Product
Corrosion inhibitor	ES-3D
Seawater anti- foulant	ERBIOCIDE-SW
Nitrite, pH, chloride test kit	COOLING WATER TEST KIT





#### **SEWAGE SYSTEMS**

Liquids and solids in sewage (black & grey water) systems should be removed from pipes, vacuum generators, holding tanks etc. prior to stacking. Otherwise, these liquids and solids will harden and generate a potential problem when the system is put back to operation.

Application	Recommended Product
Toilet descaler for removal of urine scale in restrooms/bathroms etc.	ERBIO-TDS
Toilet, sink and shower cleaner with biological active liquid formulation	ERBIO-TD
Toilet, sink and shower cleaner	ERBIO-BTC
Sewage waste treatment in concentrated biologically active powder form	ERBIO-BC 850 POWDER
Drain and pipe cleaning	ERBIO-DPC
Scale removal	RUST REMOVER
pH neutralization	ERAY

#### **BALLAST WATER SYSTEMS**

If systems will remain filled with ballast throughout the storage period, the system will subject to corrosion, We recommend Ercoat- Ballast for ballast and other tank protection during lay-up/stacking.

If the ballast water is severely contaminated, causing sediments of mud and silt to form in pipelines and tanks, it is recommended to remove these deposits with Mud and Silt Remover before applying Ercoat- Ballast.

Application	Recommended Product
Mud and silt removing	MUD & SILT REMOVER
Ballast tank corrosion inhibitor	ERCOAT-BALLAST
Anti- foulant	ERBIOCIDE-SW

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#### **OIL SOLUTIONS**

There are many problems for diesel and heavy fuel oils caused by several reasons.

Most distillate fuels leave the refinery with a 6- month life before deterioration sets in long term storage of distillate fuel and water content could cause problems with emulsions, sedimentation and oxidation.

Considering lay-up areas with temperatures lower than -9°C, paraffin crystallization (waxing), forming deposits inside tanks will be an issue.

Lighter fuels, like diesel oil, can easily be contaminated by microorganisms that lead to sludge formation, blockage, corrosion and filtering problems. The microorganisms also produce waste material that is corrosive to tank surfaces and fuel lines. Water is also a contaminant that can be found in heavy fuels and it is especially serious if the contaminating water is salt water, as this will lead to corrosion of tanks and fuel lines.

Ertek Chemicals has solutions for the problems mentoned above.

Application	Recommended Product
Organic growth control in distilate fuel and ULSFO	ERYAK-280
Lubricity improver	ERYAK-LS EXTRA
Cold Flow Improver	ERYAK-CFIs
Demulsifier for Heavy Fuel Oil (HFO)	ERYAK-300
Heavy Oil – Sludge remover	ERYAK-200
Heavy Oil – Sludge remover (before, during and after combustion)	ERYAK-500
Soot remover	SOOT REMOVER
Test kit for lube and fuel oil analysis	COMBINED TEST KIT
Compatibility, stability test	COMPATIBILITY, STABILITY TEST KIT
Water analysis in lube & fuel oil	WIO TEST KIT
TBN analysis	TBN TEST KIT
WIO Reagent Pack	WIO REAGENT& DILUENT
TBN Reagent Pack	TBN REAGENT& DILUENT

#### **ENVIRONMENTAL SOLUTIONS**

In the event of minor oil spills during operations or maintenance a fast, efficient response is essential. Our oil spill dispersants, kits, booms, sorbent pads and other damage control solutions are all designed to be deployed easily and effectively when used in conjunction with the response plan.

Application	Recommended Product
Oil spill dispersant, which is highly efficient for use on a wide range of oils	ER-OSD
Oil Spill Kit 7 Barrel	OIL SPILL KIT 7 BARREL
Oil Spill Kit 12 Barrel	OIL SPILL KIT 12 BARREL

#### CHEMICAL PRODUCTS & SERVICES

#### **APPLICATION, DOSAGE OF CHEMICAL PRODUCTS**

Application	Product	Dosage
General purpose cleaner for use on deck, tanks, engine rooms, drilling	ER-APC	1,0-20,0 %
Rust removal and brightener	RUST REMOVER	2,0-50,0 % as per usage purpose
Cleaning of drill floor, deck and soot	ER-APC AQUA	2,0-5,0 %
Degreaser for deck and machinery	OIL GREASE REMOVER	May be diluted
Heavy duty degreasing, removing oil, wax, sludge and mud	ER-OGR	May be diluted
Heavy duty degreasing, removing oil, wax, sludge and mud	TANK CLEANER EXTRA	0,2- 0,4 %
Cleaning for machinery spaces	CLEAN BREAK	May be diluted
Carbon deposits removal	CARBON REMOVER	May be diluted
Acid containing descaling accelerators and corrosion- inhibitors	DESCALING LIQUID	Max 1,0 L/ 3,0 L of water
Electrical equipment cleaner	ER-ELECTRIC SD	Undiluted usage
Descaler that removes rust and scale	DESCALEX POWDER	5-10 kg/ 100 L of water
Cleaning agent for air cooler cleaning	ECC-19	May be diluted
Commissioning cleaning for boiler and cooling water system	ERCLEAN-WT	5,0 -10,0 %
Cleaning of separator discs	SEPERATOR DISC CLEANER	1,0 L/ 4,0 -8,0 L of water
Toilet descaler for removal of urine scale in restrooms/ bathroms etc.	ERBIO-TDS	5,0 % solution to be applied
Toilet, sink and shower cleaner	ERBIO-BTC	2,0- 3,0 %
Toilet, sink and shower cleaner, biologically active liquid	ERBIO-TD	2,0- 3,0 %
Sewage waste treatment in concentrated biologically active powder	ERBIO-BC 850 POWDER	Initial Dosage: 50 g/m³, Maintenance 10 g/m³ per week
Drain and pipe cleaning	ERBIO-DPC	10,0 % solution to be applied
Hand sanitization	PURE CLEAN	Undiluted usage
Kitchen general purpose cleaner with heavy duty alkaline agents	ER-AC	1,0- 5,0 %.
Elimination and avoid trasmission of bacteria, fungi and viruses	REEFER CLEANER	1,0 - 5,0 %
Dishwash	ER-SOAP LIQUID	1,0- 2,0 %
Multifunctional	EK-5	Initial dosage: 300 mL/ ton of boiler water, Maintenance: 100 mL / ton of feed water
Oxygen scavenger	EC-2DH	Initial dosage: 200 mL/ ton of boiler water, Maintenance: 50-75 mL / ton of feed water

#### ERTEK CHEMICAL PRODUCTS & SERVICES

#### **APPLICATION, DOSAGE OF CHEMICAL PRODUCTS**

Application	Product	Dosage
Boiler coagulant	BOILER COAGULANT	Initial dosage: 20 mL/ ton of boiler water
Nitrite-based corrosion inhibitor	ES-3D	Initial dosage: 8 L/ ton of cooling water, Maintenance: 5 L / ton of feed water
Organic-based corrosion inhibitor	ERTREAT COOLANT ALL	Initial dosage: 8 L/ ton of cooling water, Maintenance: 5 L / ton of feed water
Antifreeze	ANTIFREEZE	20 -40 % as per protection to be provided
RO alcaline cleaner	ERBRANE-BC	20,0 %
RO acidic cleaner	ERBRANE-ACF	25,0 %
RO water treatment/ scale control	ERBRANE	2-10 ppm
Evaporator water treatment	EVAPORATOR TREATMENT	100 g per ton of water
Bilge water treatment	ER-FLOC BW	100-500 ppm
Potable water treatment	ERFOS-3 PWT	10 g/ 1 ton water
Potable water treatment / chlorine	SODIUM HYPOCHLORITE	2-3 ppm
Potable water treatment / chlorine	CALCIUM HYPOCHLORITE	0.4-0.6 ppm
Potable water treatment / pH adjuster	HYDROCHLORIC ACID	Fix the pH to 6.8-8.5
Potable water treatment / pH adjuster	ERAY	10 ppm of ERAY gives 5 ppm phenol alkalinity (p. Alkalinity) to the water.
Anti- foulant	ERBIOCIDE-SW	1,0-1.5 kg to 100 tons
Mud and silt removing	MUD & SILT REMOVER	25–50 L / 1000 L of water
Ballast tank corrosion inhibitor	ERCOAT-BALLAST	100 mL / 1000 L of water
Organic growth control in distilate fuel and ULSFO	ERYAK-280	0,2, 0,4 L/ 1 ton of fuel for preventing, 2,0 L/ 1 ton of fuel for contamination, 10,0 L/ 1 ton of fuel for filter blockage
Lubricity improver	ERYAK-LS EXTRA	1 L / 20 tons of MGO
Cold flow improver	ERYAK-CFIs	1 L / 1 tons of fuel
Demulsifier for heavy fuel oil (HFO)	ERYAK-300	The dosage should be done as per taking into consideration the volume percentage (%) of water as recorded in the fuel analysis. 1/ 500- 1/ 5000 L of fuel
Heavy Oil – Sludge remover	ERYAK-200	1 L / 5 tons of fuel oil
Heavy Oil – Sludge remover	ERYAK-500	1 L / 20 tons of IFO 180 / IFO 380, 1 L/ 25 tons of marine diesel oils
Soot remover	SOOT REMOVER	1-2 L / 10 tons of fuel
Oil spill dispersant, highly efficient for use on a wide range of oils	ER-OSD	May be diluted 3,0-5,0 %

#### ERTEK CHEMICAL PRODUCTS & SERVICES

#### REFRIGERANTS

Product Information	Product
Refrigerant	R-404A; 10,90 kg
Refrigerant	R-407C; 11, 30 kg
Refrigerant	R-417A; 11,00 kg
Refrigerant	R-407F; 11,00 kg
Refrigerant	R-134A; 13,60 kg
Refrigerant	R-410A; 11,35 kg
Refrigerant	R−22; 13,60 kg

#### **DOSING EQUIPMENTS**

Product Information	Product
Cooling and boiler water chemicals dosing	DOSING PUMP
Cooling and boiler water chemicals dosing	DOSING SYSTEM

#### **ERTEK**

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We hope to share our experience of over 40 years with you.

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