

The PIK KEMICAL SRL was founded in 1982 as a manufacturer of chemical auxiliaries for the industry, where it has achieved a position of leadership over the years.

The growing demands for quality on the textile market stimulated PIK KEMICAL SRL to establish its own laboratory, from the outset of its activity, where it could carry out research and development of products with a team of experts and the most advanced instruments, in order to interpret and fulfil the needs of the clientele.

PIK KEMICAL

Chemical Technologies

DIVISION



Industrial Chemistry division



Naval and Water treatment



Wastewater



Mining division



Plastics, Rubber and Tires division



Food division



Metalworking and Mechanical division



Petrochemical

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ISO 9001:2015



PIK KEMICAL

Chemical Technologies

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G/3 D.W.T. CONC

WATER CONDITIONER FOR DIESEL ENGINE COOLING SYSTEMS BASED ON PHOSPHANATE AND MOLYBDATE

G/4 NCLT

PROTECTION AGAINST CORROSION AND SCALES IN DIESEL ENGINE COOLING SYSTEMS

G/6 FULL

ANTIFREEZE FOR COOLING WATER SYSTEMS

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EVAPORATOR TREATMENT TO PREVENT SCALE FORMATION AND FOAMING

H/2 NO FOAM AGENT

TO ELIMINATE FOAMING IN SEWAGE SYSTEMS

H/3 ECOSPERSE

ANTI FOULANT AND CORROSION INHIBITOR IN SEA WATER COOLING SYSTEMS

H/4 POTABLE WATER STABILIZER

PREVENTS THE RED WATER PHENOMENON IN POTABLE WATER TANKS AND DISTRIBUTION PLANTS

H/5 IPO-CHLOR 14%

BACTERICIDE DISINFECTANT FOR POTABLE WATER, STORAGE TANKS AND LINES

H/6 OSMO ANTISCAL

FOR TREATMENT OF REVERSE OSMOSIS FRESH WATER GENERATORS

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PENETRATING OIL

PIK KEMICAL

Chemical Technologies

A/1

FUEL PIK

COMBUSTION TREATMENT FOR HEAVY FUEL OIL

Technical Support:
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Orders-Enquires:
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INSTRUCTIONS

Add FUEL PIK in the storage tank during or before bunkering.

Maximum ratio:	1 liter per 2000 lt of bunker (heavy fuel)
Medium ratio:	1 liter per 4000 lt of bunker (heavy fuel)
Minimum ratio:	1 liter per 6000 lt of bunker (heavy fuel)

DESCRIPTION

Liquid concentrate containing solvents, surfaceactive agents and combustion catalysts.

APPLICATIONS

Multifunction additive that allows improved stocking conditions, transfer and combustion of heavy fuels used to feed boilers, propulsion and 2 and 4 stroke diesel engines.

ADVANTAGES

Storage:

dissolves sludge of asphalt origin deposits on boiler bottom. Prevents sludge formation, if introduced before loading bunkers. Separates water from fuel. Allows full consumption of bunkers loaded.

Transfer:

avoids filter blocks. Prevents obstruction of transfer pipes. Avoids rubber formation on heating elements.

Combustion:

combustion catalyst action diminishes unburnt emission and keeps bunker yield at the top.

PRECAUTIONS

Avoid contact with skin and clothes. In case of contact with the eyes rinse thoroughly with fresh running water.

PACKAGING

Non returnable

- Metal drums 25 liters
- Metal drums 208 liters

PIK KEMICAL

Chemical Technologies

A/3

VANASOLVENT

TO CONTROL VANADIUM AND SODIUM COMPOUNDS IN DIESEL ENGINES AND BOILERS

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Orders-Enquires:
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DESCRIPTION

Product based on metal-organic compounds, soluble, that increase fusion temperature of vanadium and sodium compounds.

APPLICATIONS

For treatment of vanadium and sodium compounds, formed mainly on seats of exhaust valves, on outlets of medium-speed diesel engine turboblowers and on exchange surfaces of superheaters and boiler economizers.

ADVANTAGES

- Transforms the crystalline structure of vanadium and sodium deposits in powder that may be easily removed by exhaust gas, or by periodic blowing.
- By increasing the melting point of vanadium and sodium compounds, reduces piston ring groove and piston fouling resulting in longer life of piston rings and cylinder liners.
- Avoids gas leaks through exhaust valves during combustion phase, eliminating vanadium compounds from their seats.

INSTRUCTIONS

The quantity of VANASOLVENT is based on vanadium and sodium contained in fuel oil. In principle we recommend a start-up quantity of 1 liter of product every 4 tons of fuel, that may be reduced to 1 liter every 6 tons. For specific problems, analysis and other details, consult our technical service.

PRECAUTIONS

Avoid contact with eyes and skin. In case of contact, rinse thoroughly with fresh running water.

PACKAGING

Non returnable

- Metal drums 25 liters
- Metal drums 208 liters

PIK KEMICAL

Chemical Technologies

A/6

TURBOPOWDER

FOR CLEANING OF TURBOBLOWERS ON GAS SIDE WHILE OPERATING

Technical Support:
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Orders-Enquires:
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Ph. +39 0586940120

DESCRIPTION

Product of organic origin, used to clean blades of gas side of exhaust gas turbochargers. Product is in small particles with prismatic form presenting regular granulometry, between 1.3 and 1.7 mm.

APPLICATIONS

It is recommended to begin the treatment on cleaned turboblowers. The product is not to be used if temperature at the injection point is above 590°C.

Product should be injected before the turboblower in the gas inlet, at maximum 50 cm from the gas diffuser, on a daily basis or every two days.

The delivery pressure of the injected product will be less than 0.5 bar and not over 3.

ADVANTAGES

Increases greatly the turboblowers' efficiency keeping washing pressure at top level for a longer period of time.

INSTRUCTIONS

Installation of the TURBOPOWDER dosing equipment:

The dosing equipment is made of a metal tank between 2 and 3 dm³, complete with the valves necessary to fill, put under pressure, assure air outlet and product discharge.

The connection between the tank and gas inlet must not be longer than 1 m. and present a diameter of 12 x 16 mm. (see picture 1)

DOSAGE

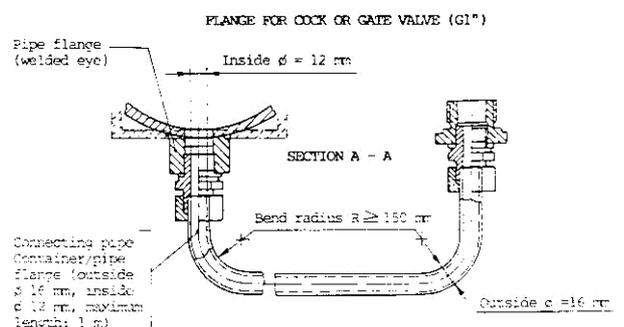
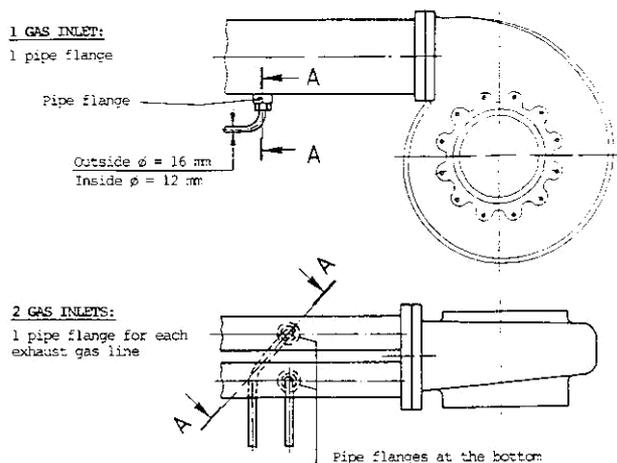
For quantity to be employed please follow the attached dosage table recommended by ABB.

PRECAUTIONS

The product does not require any special precaution.

PACKAGING

Non returnable



TURBO POWDER dosage table

VTR VTC	Quantity of Solids in dm ³ for TURBOBLOWER and cleaning	1 GASINLET			2 GASINLET			3 GASINLET			4 GASINLET		
		CONTAINER		SOLID dm ³									
		SIZE	NUMBER		SIZE	NUMBER		SIZE	NUMBER		SIZE	NUMBER	
160/161 184"	0.2...0.1	I	1	1x0.5	I	2	each 0.15	I	3	each 0.1	I	4	each 0.1
200/201 214"	0.3...0.4	I	1	1x0.4	I	2	each 0.2	I	3	each 0.15	I	4	each 0.1
250/251 254"	0.4...0.6	I	1	1x0.6	I	2	each 0.3	I	3	each 0.2	I	4	each 0.15
320/321 304"	0.6...1.0	II	1	1x1.0	I	2	each 0.5	I	3	each 0.35	I	4	each 0.25
400/401 354"	1.0...1.6	II	1	1x1.6	II	2	each 0.8	I	3	each 0.55	I	4	each 0.4
500/501 454"	1.6...2.0	II	1	1x2.0	II	2	each 1.0	I	3	each 0.7	I	4	each 0.5
630/631 564"	2.0...2.4	II	1	1x2.4	II	2	each 1.2	II	3	each 0.8	I	4	each 0.6
714" 750/751 900"	2.4...2.8	III	1	1x2.8	II	2	each 1.4	II	3	each 0.9	I	4	each 0.7

PIK KEMICAL

Chemical Technologies

B/1

COLD WASH

COLD EMULSIFYNG SOLVENT FOR GENERAL DEGREASING STEAM BOILERS AND TANK CLEANING

Technical Support:
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Orders-Enquires:
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Ph. +39 0586940120

DESCRIPTION

COLD WASH is a degreaser composed by cold dispersant and emulsifying agents, surface-active, nonionic and biodegradable as required by legal standards.

APPLICATIONS

COLD WASH is used undiluted or mixed with fresh water; may be applied by spraying, by dipping, by brush or cloth, by ultrasonic or mixing or tossing devices.

COLD WASH penetrates deposits surface for an easy removal.

To accelerate this process in asphalt or paraffinic-like deposits, a metallic or hard bristle brush may be used to combine mechanical and chemical action.

Let COLD WASH acts on deposits surface for 10-15 minutes before rinsing thoroughly with fresh or salt water.

COLD WASH quantity to be employed depends on kind and degree of contamination.

ADVANTAGES

This product allows flexibility and is biodegradable to meet legal requirements.

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62))

INSTRUCTIONS / TANK CLEANING

COLD WASH is used for cleaning of:

- Crude oil, fuel, gas-oil, lube oil and mineral oil tanks by recirculation method
- Bilges, cofferdams, pump rooms, oil, fuel, air filters
- Machinery parts, motors, carters, drain tanks, condensate drainage systems, contaminated steam boilers
- Oil spills on bulkheads, decks, outboards, workshop floors

Cleaning of contaminated steam boilers:

Fill the system with a cleaning solution of 5% of COLD WASH in water. Circulate the cleaning emulsion for 12-24 hours at a max temperature of 90°C. After the circulation, drain the boiler and rinse thoroughly with fresh water.

Cleaning of tanks by recirculation method:

A prewash with hot water at approx 50°C is recommended before cleaning with COLD WASH. For drying and semi-drying oils a prewash with cold water should be applied.

Prepare a chemical solution with 2-6% of COLD WASH in water, in a mixing tank containing a quantity of water of 1% of the tank to be cleaned. Start the circulation by means of a loading pump, after which the solution used is recycled to the mixing tank. Circulate the emulsion for 2-6 hours. Depending on size and contamination degree of tanks, usually 2-3 tanks can be cleaned with this method. After chemical cleaning, rinse the tank thoroughly with water.

CAUTION

In case of any contact with eyes, rinse thoroughly with fresh running water and if necessary seek medical advice.

PIK KEMICAL

Chemical Technologies

SEACLEAN

B/2

FOR CLEANING OF DOUBLE BOTTOMS, BILGES, PEAKS AND GAS-FREEING OF TANKERS

CONTACT US

Technical Support:
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Orders-Enquires:
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Ph. +39 0586940120

DESCRIPTION

SEACLEAN is an emulsifying liquid, used to clean and degrease double bottom tanks, fuel tanks, peaks, deep tanks, bilges, etc.

APPLICATIONS

Taking advantage of the natural roll of the vessel while sailing, with SEACLEAN action it's possible to reach the port with cleaned and gas free tanks/ double bottoms, ready for inspection or repair work. Aside from cleaning and gas freeing tanker vessel tanks, SEACLEAN may be used for cleaning of bilges, pump rooms and machinery. SEACLEAN, if used together with mechanical washing equipment (Butterworth type) in a ratio of 1 or 3 liters per tonn of pumped water, allows to reduce gas freeing operation.

ADVANTAGES

- Easy to use: introduce the product in the deposits through sounding pipe or air vents.
- Cleans deposits without use of mechanical advice or human supervision, using the natural roll of the vessel.
- Low cost compared to traditional techniques.
- Allows obtaining "Gas Free" certificate in a very short time.
- Does not interfere with the normal vessel operations.
- Reduces time and man labour when cleaning for cargo change.
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62))

INSTRUCTIONS / TANK CLEANING

Roll of double bottom cleaning:

Strip well double bottoms. Introduce SEACLEAN through sounding pipe or bow air vent. The quantity should be 1 or 2 litres per tonn of water introduced in the tank, depending on pollution level. Inlet salt water through the same sounding line, to fill 3/4 ths of the tank. Heat through existing coils or by steaming, up to 50-70 °C. Let SEACLEAN work together with the roll and pitch of vessel, cleaning double bottom tanks for 3-4 days. Empty the tanks and rinse with water trough the sounding pipe line until clear water runs from vent pipes on deck. Repeat operations in case of dirt resistance. Open manholes and vent well the tanks before inspections.

Direct injection method for cargo tanks:

Inject undiluted SEACLEAN into the automatic tank cleaning system line on deck. Usually the suggested ratio is of 1 or 3 liters per tonn of water pumped in tank cleaning system. Clean each tank for 2-6 hours (depending on dirt degree). After cleaning procedure, rinse with water.

Recirculation method:

Prepare a chemical solution with 2-6 % of SEACLEAN in water, in one of the after tanks near the pump room. Start the circulation via the automatic washing system pump and heater to the tank to be cleaned, wherefrom the solution is returned to the chemical tank solution through the stripping line. Capacities of solution tank, pipelines and pumps should be calculated carefully to ensure sufficient volumetric quantity for a continuous recirculation. Depending of size and contamination degree of tanks, usually 3 tanks can be cleaned with this method after wich a new one should be made and heated before cleaning procedure could restart. After chemical cleaning the tanks must be rinsed thoroughly with sea or fresh water depending on availability and requirements.

PACKAGING

Non returnable

- Metal pails 25 litres
- Metal drums 208 litres

PIK KEMICAL

Chemical Technologies

B/3

SAFETY CLEAN

GENERAL PURPOSE SOLVENT DEGREASE, TOTALLY FREE FROM AROMATIC COMPONENTS

Technical Support:
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Orders-Enquires:
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Ph. +39 0586940120

INSTRUCTIONS

SAFETY CLEAN can be used pure or diluted with fresh or sea water. Can be used in solution with water (200 lt of SAFETY CLEAN per mc) for tanks cleaning. For better results use hot water.

Can be used pure (by brush or spryng) for cleaning of surfaces or components. Let the product work for some minutes then rinse with water.

CAUTION

To be used in areas well vented. Wear protective dresses. In case of contact with skin or eyes, wash with plenty of water. The product is fully stable in normal condition of storage and use.

PACKAGING

Not returnable
- metal drum 25 liters
- metal drum 208 liters

DESCRIPTION

SAFETY CLEAN is a strong liquid degreaser based on hydrocarbon compounds and biodegradable surfactants for removing heavy mineral oils and fats, soot, asphalt and carbon black, etc.

SAFETY CLEAN can be used on all surfaces contaminated from mineral oils and fats; can be used pure or diluted with fresh or sea water. With no aromatic components.

APPLICATIONS

SAFETY CLEAN is usually used for cleaning of:

- Tanks
- Lube oil coolers
- Fuel heaters
- Oil and fuel filters
- Metal surfaces to be painted
- Mehcanical parts

PIK KEMICAL

Chemical Technologies

B/4

SOLVENT 2

GENERATION OIL SPILL DISPERSANT

Technical Support:
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Orders-Enquires:
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Ph. +39 0586940120

DESCRIPTION

SOLVENT 2 is a dispersant based on surface active agents and solvents with a very low toxic level.

APPLICATIONS

Eliminates liquid hydrocarbons like: crude oil, mineral turpentine, kerosene, gas oil, heavy fuels, lubricants spilled at ports, sea, near off-shore drilling platforms.

ADVANTAGES

- Action: SOLVENT 2 transforms hydrocarbons in thin emulsions.

This breakdown has following consequences:

- Accelerates their biodegradation by marine bacteria.
- Avoids the barrier effect that disturbs chemical and physical exchanges between the atmosphere and marine environment.
- Biodegradability: conform to present legislation on biodegradability of surface-active agents.)
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62))

INSTRUCTIONS

A) For pollution at port:

- Pour SOLVENT 2 on the hydrocarbons spilled at sea.
- if the layer is thin spray SOLVENT 2 by a manual pump with incorporated storage.
 - if it is very large can be used a spraying gun installed on the bow of a motorboat, to spread the product on the hydrocarbon layer.
- SOLVENT 2 may be mixed with water, in the minimum ratio of 10%, and should be increased (up to using the product pure) in case the hydrocarbons are thick, viscous, or oxidized .
- wait a short time to allow that the hydrocarbons emulsify the product, then disperse it with a fire launch or other mechanical means with repeated crossings of the polluted area with motorboats.
- Hydrocarbons on pier walls and pillars may be eliminated with the following technique: spray with the dispersant the polluted areas, wait 5 min. and disperse the hydrocarbon layer with a fire hose or a water pressure hose.

INFORMATION

If deposits are oxidized, repeated treatments may be required

B) For sea pollution or pollution near off shore platforms:

- circle the oil layer with a floating barrier.
- try to pump or absorb the hydrocarbon layer with adequate mechanical means.
- spray SOLVENT 2 on remaining oil with a spray nozzle secured to the bow of a motorboat or tug.
- feed systems of spray hoses on antipollution boats are designed to inject the dispersant, mixed with sea water.

Our technical office can supply special flat nozzles with adaptable range for spraying SOLVENT 2 on sea surface.

The movement created by the propellers of the operating launches is sufficient to generate the emulsion that will be dispersed subsequently.

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Chemical Technologies

B/4

AVERAGE SUGGESTED DOSAGE

- **light hydrocarbons: (crude light oils, mineral turpentine, kerosene, gas oil)** 100 liters of SOLVENT 2 per 1 m³ of hydrocarbons.
- **crude oil with medium viscosity level:**
150 liters of SOLVENT 2 per 1 m³ of hydrocarbons.
- **heavy hydrocarbons: dense combustion oils, lubricants**
200 liters of SOLVENT 2 per 1m³ of hydrocarbons.

PRECAUTIONS

In case of contact with skin or eyes, rinse thoroughly with fresh, running water.

ATTENTION

The use of SOLVENT 2 in areas of special ecological interest is subordinated to authorization of the competent Authorities.

PACKAGING

Non returnable

- Metal drums 208 liters
- Metal pails 25 liters



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PIK KEMICAL

Chemical Technologies

B/5

CLEANBREAK

OIL WATER SEPARATOR TO CLEAN TANKS AND BILGES

Technical Support:
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Orders-Enquires:
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Ph. +39 0586940120

DESCRIPTION

Organic liquid for tank and bilge cleaning, containing solvents and detergents with incorporated demulsifying agents.

APPLICATIONS

- Suitable for use with bilge separators
- Gas-freeing of tanks and bilges
- General cleaning of engine rooms, bulkheads, decks and any area polluted by hydrocarbons
- Cleaning wherever used waters go through a separator.

ADVANTAGES

- Works together with a bilge separator
- Easy breakdown of slop emulsions.
- Separates oil from water.
- Oil phase can be spilled and used again.
- Oil phase does not damage in any way combustion or refinery processes.
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62))

INSTRUCTIONS

CLEANBREAK can be used pure through a non spraying nozzle and left to act for 10 min. before rinsing. The resulting emulsion may be allowed to separate in a decantation tank for a minimum of 3 hours before going through the separator.

Engine room cleaning

On the basis of degree and nature of contamination, start with a solution of 5% of CLEANBREAK in water, up to a maximum of 10%.

Apply the solution with a brush, paintbrush or with a sprayer on the dirty surface. Let the product react for 10-20 min. to obtain best penetration and rinse with water.

Tank cleaning

Prewash: before starting with the cleaning procedure with CLEANBREAK is recommended to prewash with hot water at 50°C, except for for drying oils where a prewash with cold water should be used.

Recirculation method

the cleaning solution has to be mixed in a separate tank (sloptank) with an amount of water of 1% of total capacity of the tank to be cleaned. The solution must be heated at 40-50°C using the heating coils in the tank and recirculated for 1 to 3 hours using a cargo pump. CLEANBREAK must be recirculated at a 3-6% emulsion. One solution is normally used to wash 2-3 tanks. After the circulation, rinse thoroughly with water.

PRECAUTIONS

Wear gloves and protective eyeglasses. If product comes in contact with eyes rinse thoroughly with fresh running water.

PACKAGING

Non returnable

- Metallic pails 25 liters
- Metallic drums 208 liters

PIK KEMICAL

Chemical Technologies

B/6

ECOCLEAN

MULTIUSE BIODEGRADABLE DETERGENT IN WATER SOLUTION

Technical Support:
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Orders-Enquires:
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Ph. +39 0586940120

DESCRIPTION

ECOCLEAN is a multiuse degreaser for engine parts, in water solution. This product is non toxic and biodegradable. A perfect combination of solvents extracted from citrus fruits mixed with wetting substances make this an excellent degreaser.

APPLICATIONS

ECOCLEAN, pure or mixed with water, may be used for any type of cleaning or degreasing.
cleaning of engine rooms
oil and grease remover;
tank cleaning
vegetable and animal oil cleaning.
Suitable also for ultrasonic or pressure washing systems.

ADVANTAGES

- Multiuse product with excellent detergent qualities, totally biodegradable and not toxic.
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62))

INSTRUCTIONS

Used to clean tanks that have carried animal or vegetable oils:

1) **Injection method**

ECOCLEAN may be injected directly in the Butterworth line, one liter per each ton of water, or by closed circulating system between 3 and 5 %. After its effect, ECOCLEAN separates from the water withholding the trapped dirt, thus scavenging decanted water.

May be also used to clean refrigerated tanks/cells, floors, decks and deck machinery.

• **By dipping (use stainless steel tanks):**

The operation is similar to the former one:

Preliminary degreasing, if required.

The quantity of ECOCLEAN used is in principle 10% of the total volume of the solution.

For a layer of approx 2/3mm, use a solution of 8/12%; for a thicker or thinner layer, use a more or less concentrated solution.

Rinse with running water.

DOSAGE

Ideal solution with water from 5 to 10%.

For normal cleaning, it may be applied by paintbrush, dipping or spraying. In this case wait a few minutes before rinsing.

Product is compatible with all tank protection coatings.

PRECAUTIONS

ECOCLEAN is a slightly alkaline product.

Does not require any special precaution. In case of contact with the eyes rinse with fresh water.

PACKAGING

Non returnable

- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

B/7

ALKACLEAN

TANK CLEANING ADDITIVE

Technical Support:
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Orders-Enquires:
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DESCRIPTION

Alkaline concentrate solution containing surface-active, anionic and dispersant agents. Can be used on most common metals except aluminum, tin, zinc and galvanised metals.

APPLICATIONS

Cleaning of tanks that carried coal, coke, pet coke, vegetable and animal oils.
Also suitable for cleaning of inert gas residues and residues of soot and combustion.
Removal of black/brownish residues after cargoes like crude benzene, creosote and pygas

ADVANTAGES

- Powerful alkali liquid
- Easy to dilute with fresh water
- Penetrates easily and transforms mineral deposits, vegetal/animal fats in soluble compounds
- Odorless and fireproof
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62))

INSTRUCTIONS / TANK CLEANING

Tank cleaning with recycling system:

prepare a solution of 3 to 5% of ALKACLEAN in water (fresh or seawater) in a slop tank, heat up to 70°C and proceed to wash by recirculation. Depending on size and degree of contamination of tanks, with this procedure it is possible to wash from 3 to 4 tanks. After the circulation rinse thoroughly with water.

Tank cleaning with direct injection to Butterworth system:

feed ALKACLEAN in the proportion of 3 liters per tonn of water (fresh or seawater) pumped in the washing line at a temperature of 60/70°C. After the washing rinse thoroughly with water.

PROPERTIES

Phys. properties: dark brown
pH: >13
Spec. gravity: 1,10-1,20
Solubility in water: complete

PRECAUTIONS

Always use gloves and protective glasses. In case of contact with eyes rinse thoroughly with fresh running water and if necessary seek medical advice. Consult the Material Safety Data Sheet

PACKAGING

Non returnable
• Plastic pails 25 litres
• Plastic drums 200 litres

PIK KEMICAL

Chemical Technologies

B/9

ULTRASONIC CLEANER

MULTIUSE DETERGENT FOR ULTRASONIC EQUIPMENT

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

The use of ultrasonic combined with special detergent gives excellent results. ULTRASONIC CLEANER is designed for ultrasonic dipping processes for cleaning all materials except zinc and galvanized parts. May be used on rubber and synthetic materials.

ADVANTAGES

- Suitable to use on all common metals except for zinc.
- Specific for ultrasonic cleaning.
- This product is not foaming.
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

For ultrasonic dipping:

Depends on pollution level.

ULTRASONIC CLEANER is used in solution between 5 and 25% in water at a temperature of 50 - 70°C.

Disassemble parts, dip components, making sure they are well separated and completely dipped. Cleaning time should be between 5 and 30 min, or longer if necessary.

Remove parts and rinse with water.

The solution must be periodically renewed because in a strongly polluted bath the cleaning becomes inefficient.

Washing machines:

ULTRASONIC CLEANER is applied, depending on the nature and the thickness of dirt to be removed, in a solution of 4% in fresh water. Polluted objects must be introduced in the machine tank and cleaned for 30 - 60 min. at a temperature of 80 - 90 °C, removed and rinsed with water.

PRECAUTIONS

In case of contact with the eyes, rinse thoroughly with fresh running water and, if necessary, seek medical advice.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

B/11

DINAPIK

DETERGENT AND GERM KILLER FOR CLEANING TANKS FOR EDIBLE CARGOES

Technical Support:

pikkemical@pikkemical.it

Orders-Enquires:

pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

This product is particularly useful for preparing tanks for change of cargo from vegetable and animal oil to water, wine or other products. During these operations DINAPIK facilitates cleaning and preparing tanks to the next cargo due to its bactericide power.

APPLICATIONS

DINAPIK is used to remove organic and inorganic substance. While cleaning a chemical reaction on decomposed substances develops a deodorant potential that eliminates unpleasant smells. This product is widely used both in industries and in shipping for:

- Tanks and holds
- Refrigerating systems
- Wharehouses
- Hospitals and bathrooms
- Food industries, mess rooms, galleys and canteens.

ADVANTAGES

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

If used by recirculating method in Butterworth system, a variable percentage between 3 and 5 % in hot water at 60°C allows washing 4 or 5 tanks. At the end of operations rinse thoroughly all surfaces with fresh water.

DINAPIK may be applied also with brushes, rags or a spraying devices. In this case the required percentage is 5 to 10% depending on type and consistency of dirt to be removed.

PRECAUTIONS

Product is non toxic and fireproof, does not damage skin nor clothes.

In any case avoid contact with the eyes.

PACKAGING

Non returnable

- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

B/12

GENTLE

MULTIUSE NEUTRAL DETERGENT OVER 90% BIODEGRADABLE

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Universal detergent, neutral, multipurpose, biodegradable over 90%. Prepared with carefully selected components, including appropriate foaming agents.

APPLICATIONS

GENETLE is a multipurpose detergent, recommended for domestic and industrial use. Due to the high concentration of active substances, the product is not influenced by water hardness.

ADVANTAGES

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

For wool, silk, synthetic fibers, overalls:

50 gr per liter of water

For glass, dishes, tools, porcelain, enamel, varnish:

50 gr per liter of water

For oily or greasy plastic material or mechanical parts:

5% solution in water

For floors of any type, workshops, gas stations:

10% solution in hot water

TANK CLEANING

GENETLE can be used to remove light residual of vegetable or animal oils, in water solution from 2 to 10%. It can be used for spraying, recirculation and direct injection.

The effectiveness of GENTLE is increased by using hot water (60 to 80°C). After the cleaning procedure, rinse thoroughly with water.

PRECAUTIONS

Does not require special precaution. In case of contact with eyes rinse thoroughly with fresh running water.

PACKAGING

- Non returnable
- Plastic pails 25 liters
 - Plastic drums 208 liters

PIK KEMICAL

Chemical Technologies

B/14

ACQUAPIK

MULTIPURPOSE DEGREASER, SAFE, NOT TOXIC, BIODEGRADABLE

Technical Support:

pikkemical@pikkemical.it

Orders-Enquires:

pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

ACQUAPIK is a multipurpose degreaser for engine parts, in water solution, not toxic, not caustic, biodegradable. The special formulation gives to ACQUAPIK excellent degreasing properties.

APPLICATIONS

ACQUAPIK, pure or mixed with water, can be used for any kind of cleaning or degreasing.

Cleaning of engine rooms:

oil and grease removing,

tank cleaning:

vegetable and animal oil cleaning.

Suitable also for ultrasonic or high pressure washing systems.

ADVANTAGES

Multiuse product with excellent detergent qualities, totally biodegradable and not toxic.

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

Tank cleaning from vegetable or animal oil residuals:

ACQUAPIK can be directly injected through the Butterworth system at a ratio of 1 liter each ton of water, or by closed circulating system in a concentration of 0,5%.

Can be also used for cleaning of decks and deck machinery.

DOSAGE

ACQUAPIK can be used pure or water diluted at 50%.

For normal cleaning may be applied by paintbrush, dipping or spraying. In such cases, wait few minutes before rinse. This product is compatible with all tank protection coatings.

PRECAUTIONS

ACQUAPIK doesn't need any special precautions. In case of contact with eyes rinse with plenty of fresh water and consult material safety data sheet.

PACKAGING

Not returnable

- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

RUST CLEAN

Tank cleaning additive

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Concentrated acid cleaner based on Phosphoric Acid.

APPLICATIONS

RUST CLEAN can be used for removal of hardness stains in cargo tanks and iron ore, limestone (carbonates), magnesite from cargo holds.

ADVANTAGES

RUST CLEAN is safe to use on stainless and resistant coatings.
RUST CLEAN does not contain any caustic agent, that tends to dull cleaned surfaces; it neutralizes existing oxidations, leaving tank surfaces perfectly cleaned and protected.

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS / TANK CLEANING

Suitable in fresh or seawater
Recommended concentration by re-circulation method: 1 - 5%
Cleaning temperature: ambient to 60 deg.C.

PROPERTIES

Phys. properties: colourless straw yellow
PH Value: < 2
Spec. gravity: 1,00 - 1,10
Solubility in water: complete

DOSAGE

Ideal solution with water (fresh or seawater) from 1 to 5%. Fully miscible in water.

PRECAUTIONS

Contains biodegradable surface active agents, complexing agents and phosphoric acid.
Handle with care: use gloves and protective glasses. In case of contact with eyes rinse thoroughly with fresh running water and if necessary seek medical advice.

PACKAGING

Non returnable

- Plastic pails 25 liters
- Plastic drums 200 liters

PIK KEMICAL

Chemical Technologies

C/1

CARBON SOLVENT

POWERFUL SOLVENT EMULSIFIER TO REMOVE CARBON RESIDUES AND BURNT OIL

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

CARBON SOLVENT is a liquid product containing solvents with strong detergent and penetrating power, to free contaminated surfaces from high, medium and low temperature combustion residues.

APPLICATIONS

CARBON SOLVENT is a liquid product used to clean metal surfaces with combustion deposits like carbon deposits, oil, paint, melted rubber. Specially designed for:

- Burner tips
- Gas turbines
- Pistons and engine combustion parts
- Washing blocks
- Diesel and fuel oil filters
- Fuel oil heating systems
- Injectors

INFORMATION

To repeat a cleaning operation with used CARBON SOLVENT we recommend eliminating residues and sludge from previous washing operations.

INSTRUCTIONS

CARBON SOLVENT is applied both by circulation and by dipping. In case of hard deposit, to accelerate the cleaning process, we recommend heating the product to approx, but not above 50°C, in well vented rooms.

1) By circulation:

Before starting the cleaning operations discharge completely any oil or diesel remaining in the circuit to be cleaned. Suck through a pump CARBON SOLVENT contained in the tank that acts as expansion tank and pump it to the lowest part of the circuit, so that the solvent covers all surfaces. Connect the highest part of the circuit (return) with the expansion tank.

Circulate CARBON SOLVENT between 6 and 8 hours depending on residuals nature and thickness. Empty the circuit completely of CARBON SOLVENT and keep the used product for another operation.

Rinse the circuit with water or, preferably with petroleum solvent (gas oil, kerosene).

2) By dipping:

We recommend securing the parts to be cleaned with proper ropes, to facilitate dipping and removal from the tank.

Dip parts completely in CARBON SOLVENT contained in an appropriate metal tank; leave the parts dipped in the product for at least 4 hours.

Remove the parts, eventually brush residues broken down by the chemical action and rinse thoroughly with fresh water. To reduce dipping time, or in case of particularly resistant deposits, heat the solution (max 50°C).

PRECAUTIONS

Use only in vented rooms and far from fire. Handle with care; use gloves and protective glasses and, if there is any danger of spraying, use also aprons and boots. In case of contact with the eyes rinse thoroughly with fresh running water and request medical assistance.

PACKAGING

Non returnable

- Metallic pails 25 liters
- Metallic drums 208 liters

PIK KEMICAL

Chemical Technologies

C/2

A.C.C COOLER CLEANER

CLEANING PRODUCT FOR AIR COOLERS IN OPERATION OR BY DIPPING

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

APPLICATION

A.C.C. is recommended to maintain perfectly clean the inner surface of:

- air coolers (air side)
- scavengers
- washing blades
- cylinder crenels

A.C.C. reduces also piston ring deposits and scales.

INSTRUCTIONS

Injection method

A.C.C., diluted in a proportion of 1 to 3 with water, may be injected with the aid of the INJECTION KIT (supplied upon request) after the turboblowers, i.e. in the air line before the coolers. A.C.C., carried by the air, invests air coolers, cleaning valves and hits the cylinder through the washing system. While flowing A.C.C. acts as a detergent on all surfaces.

The quantity of A.C.C. to be injected depends on the actual conditions of the air coolers and on their dimensions: in principle one injection of A.C.C. every 24 hours (for each air cooler) is sufficient (recommended injection solution of 1 to 2 liters of A.C.C. mixed with 3 liters of water).

The emulsion must be prepared and mixed thoroughly before use.

After approximately 10 minutes the injection must be repeated with 5 liters of fresh water only.

Dipping method

The product must be used pure, in a metal tank slightly larger than the air cooler.

Stirring the product by compressed air or a small pump will improve the result.

Cleaning will take approximately 3 to 4 hours, thereafter rinse thoroughly with pressurized water, preferably hot.

Any A.C.C. left may be filtered and recuperated.

PRECAUTIONS

Use protective gloves and glasses, do not inhale vapors. In case of contact with eyes rinse thoroughly with fresh running water and if required search for medical assistance.

PACKAGING

Non returnable

- Metallic drums 25 liters
- Metallic drums 208 liters

PIK KEMICAL

Chemical Technologies

C/3

FILTER CLEANER

LIQUID CLEANING AGENT FOR REMOVAL FROM FILTERS OF CARBONIZED OIL RESIDUES

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Aliphatic and aromatic hydrocarbons mixed with anionic surface-active agents.

- Removes carbonised oil, wax and paraffin.
- Designed for oil and fuel filters.
- Not corrosive product.

APPLICATIONS

FILTER CLEANER is mainly used for cleaning any type of metal or ceramic filters.

INSTRUCTIONS

Use FILTER CLEANER pure, in a tank, heating up to max. 60°C, dipping the dirty engine parts. Or apply directly circulating in the heat exchangers. The circulation time depends on the actual status of the heat exchangers and is, in any case, between 8 and 24 hours.

PRECAUTIONS

While applying this treatment keep the room vented.

Keep away from open fires.

Use gloves and protective glasses. Do not inhale vapours. In case of contact with the eyes rinse thoroughly with fresh running water and seek medical assistance.

PACKAGING

Non returnable

- Metallic drums 25 liters
- Metallic drums 208 liters

PIK KEMICAL

Chemical Technologies

D/1

LECTROPIK

COLD SOLVENT FOR CLEANING ELECTRICAL EQUIPMENT

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

LECTROPIK is used cold by direct contact with parts to be degreased and cleaned. Due to low volatility it is an excellent product to use by dipping.

APPLICATIONS

Is possible also by spray, brush or rags. To dry treated parts, after cleaning, dry with an air jet. LECTROPIK is very safe and suitable to clean electrical equipment, such as motor windings, generators, control panels, etc. Due to high degreasing power, it may be used to clean mechanical parts of any shape and type, either disassembled in workshops or insitu.

ADVANTAGES

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

Please refer to our technical assistance to have further documentation and information on LECTROPIK and for the solution of problems.

PRECAUTIONS

Follow usual precautions for handling industrial solvents (gloves, aprons, protective glasses, etc) and use product in well vented rooms.

In case of contact with the eyes, rinse thoroughly with fresh running water and, if necessary, seek medical assistance.

Do not swallow; do not inhale vapours; keep containers tightly sealed.

PACKAGING

Non returnable

- Metallic drums 25 liters

PIK KEMICAL

CHEMICAL TECHNOLOGIES

Descaling

E/1

ACID DESCALER FOR WATER SCALE AND RUST DEPOSITS

CONTACT US

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Liquid acid scales remover containing a corrosion inhibitor for ferrous metals.

APPLICATIONS

Used for water systems and equipment made of ferrous metals: scales removing, deoxidating, pickling before starting up of: industrial and marine boilers, heat exchangers, refrigerating condensers, cooling water systems, pipelines, etc.

ADVANTAGES

Protects metals with a corrosion inhibitor. Contains a pH colour indicator.

The active solution is brownish red and turns to yellow when the solution loses power. To renew scales remover action, add DESCALIN until the solution becomes brownish red again.

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

Two procedures are possible:

• **By circulation**

Preparation:

- Empty the circuit.
- In case the circuit inspection reveals the deposits are covered by grease, it is strongly recommended to degrease the circuit, by circulating:

An alkaline solution of ALKACLEAN between 2 and 5% (if grease deposits are vegetable or animal fat)

Or an emulsifying solution of SEACLEAN at 5% (if the grease deposits are mineral).

- Prepare a 10 or 20% solution of DESCALING
- Install a gas exhaust outlet in the upper part of the system.

Scales removing:

- After discharge of the degreasing solution, introduce progressively the DESCALING solution.
- Circulate heated solution (max 60°C) for overall 12-18 hours depending on deposit consistency.
- The dissolving of carbonate deposits produces carbonic gas and foam.
- After the scales removing, empty the circuit from the lower side, flushing where possible with a pressure hose.

Neutralization:

- Neutralize traces of acid residuals passivating the circuit by circulating for 2 hours, possibly hot at 50°-60 °C, a solution of ALKALINITY CONTROL 1 - 2%.
- Empty the circuit.
- Fill up with fresh water and resume regular water treatment;

• **By dipping (use stainless steel or PVC tanks)**

The operation is similar to the former one: Preliminary degreasing, if required. The quantity of DESCALING used is in principle 10% of the total volume of the solution. Solution must be heated up to 60°C. For a layer of approx 2/3mm, use a solution of 8/12%; for a thicker or thinner layer, use a more or less concentrated solution. At the end of the scales removing treatment proceed to neutralization.

PRECAUTIONS

Handle with care, use gloves and protective glasses and if there is possibility of spraying, also aprons and boots. In case of contact with the eyes, rinse thoroughly with fresh running water or sodium bicarbonate solution and seek urgent medical assistance.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

E/3

RUSTLESS

METAL BRIGHTNER - SCAVENGES ALUMINIUM, BRASS, COPPER AND THEIR ALLOYS - ELIMINATES RUST STAINS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Liquid solution, detergent and scavenging for cleaning metal surfaces.

APPLICATIONS

Designed to deoxidize metals, restoring the original shine and brightness. Used for all metal surfaces for a rapid and efficient cleaning.

Rust stains, usually removed by abrasive material or highly alkaline solutions, are quickly eliminated. RUSTLESS is also used to remove lime deposits after tank cleaning operations.

ADVANTAGES

RUSTLESS allows many operations of cleaning and scavenging of painted or polished surfaces. RUSTLESS does not contain any caustic agent, that tends to dull cleaned surfaces; it neutralizes existing oxidations, leaving metal surfaces perfectly cleaned and protected.

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS / TANK CLEANING

Rinse with fresh water the surfaces to be treated; apply RUSTLESS in water solution from 10 to 50% by spray or brush. After 10-15 min, rinse with warm water.

Tank cleaning

If lime scale stains are present after tank cleaning operations, inject 0,5 ltrs RUSTLESS per 100 ltrs washing water directly into the automatic washing system for approx 20 min at a temperature of 70-80°C.

PRECAUTIONS

Handle with care: use gloves and protective glasses. In case of contact with eyes rinse thoroughly with fresh running water and if necessary seek medical advice.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

E/5

DESCALER

LIQUID SCALES REMOVER FOR SEWAGE WATER SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it PIK KEMICAL SRL via Aiaccia,72 Stagno Livorno 57017 Italy

Ph. +39 0586940120

DESCRIPTION

Liquid blend of acids scale remover specially formulated for organic substance removal and uric acid. Containing a corrosion inhibitor for ferrous metals.

APPLICATIONS

- For scales removing of any type of metal and/or plastic circuits except aluminium and zinc
- specific for cleaning of sewage water in vacuum systems.

ADVANTAGES

- Penetrates deeply deposits, allowing rapid acid action.
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

Three procedures are possible:

• **Recirculation method**

Preparation:

- Prepare the section of sanitation system to be descaled. The use of a PVC drum or container (of adequate dimension) is suggested. Connect an acid-proof pump to the PVC container and pump the solution in counter-current to all sanitation devices from which the solution will return to the PVC container.
- empty the circuit to be treated;
- prepare solution at 50% of DESCALER install in the above part of the system an exhaust gas disperser.

Scale removing:

- introduce progressively DESCALER solution;
- circulate the solution for 8-10 hours (50 °C);
- empty through the lower part of the circuit.

Neutralization:

- Fill the circuit with water adding 1% of ALKALINITY CONTROL;
- Circulate for at least 1 hour;
- empty the system.

• **By dipping (use stainless steel or PVC tanks)**

- prepare in a tank the proper solution (50% in fresh water)
- blend the solution (by compressed air or pump) possibly heating it to 40/50 °C
- dip for 6/8 hours, then remove and rinse with pressurized hot water.

• **Automatic dosing system:**

Injector – on/off switch with daily timer – solenoid valve – clamp for injection point.
When timer start the dosing system, the solenoid valve opens and the vacuum system self-suck DESCALER
Times and duration of each valve opening will be determined depending on condition of sanitation system and point of injection (diam. of manifold)

PRECAUTIONS

Handle with care, use gloves and protective glasses and in case of danger of spraying also aprons and boots. In case of contact with the eyes, rinse thoroughly with fresh running water or sodium bicarbonate and request urgent medical assistance.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

DISC SEPARATOR

E/6

ACID BASED SOLVENT AND DEGREASER FOR CLEANING LUBE AND FUEL OIL SEPARATOR

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Liquid blend of surface active agents and emulsifying compounds in an acid based solvent with a special inhibitor.

APPLICATIONS

Removes heavy and resistant deposits that build up in fuel oil and luboil separators.

INFORMATION

Do not use this product on zinc, tin, galvanized or anodised aluminium surfaces.

APPLICATIONS AND INSTRUCTIONS

Separators can be cleaned by circulating when the system allows or disassembled and cleaned dipping piece by piece in a proper tank.

Use the product pure or diluted less than 20% in volume of fresh water, depending on deposit consistency, on availability of a heat source to heat the detergent solution and on time limitations.

Even if good results can be obtained at room temperature, cleaning will be more efficient and thorough at a temperature of 50°C max.

Cleaning time may vary from 30 minutes to 4 hours, depending on solution concentration, on heating and on consistency of the deposits.

After the system and/or the parts are cleaned, rinse thoroughly with water to remove all traces of the solution.

PRECAUTIONS

Use in well vented rooms. Use gloves and protective glasses. In case of contact with eyes wash thoroughly with fresh running water and seek medical assistance.

PACKAGING

Non returnable
- Plastic pails 25 lt

PIK KEMICAL

Chemical Technologies

F/1

BWT

COMPLETE TREATMENT FOR LOW PRESSURE BOILERS (MAX 20 BAR)

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Liquid compound of alkaline mineral salts, scavenging agents and corrosion inhibitors.

APPLICATIONS

Suitable to use for donkey boilers, heating systems, multiple water tubes and monotubular boilers, at low or medium pressure with low hardness level or distilled feed water. Contains a corrosion inhibiting agent.

BWT reacts with water mineral salts not allowing them to adhere, allowing removal through blowdown.

BWT may be introduced continuously through a metering pump in the boilers feed water or directly in the hot well (see bulletin U/4).

Regular blowdown from the bottom and surface should remove sediments and sludge.

ADVANTAGES

This product is very flexible for a complete boiler treatment.

Balanced alkalinity supplied by BWT assures:

- Enables hardness salt precipitation.
- Appropriate conditions to maintain silicon dioxide in suspension.
- Correct alkaline level to prevent corrosion.

Furthermore BWT ONE inhibits corrosion due to free oxygen in feed water.

INSTRUCTIONS

The star up quantity for a first treatment is 1 liter of BWT for each ton of water in the system.

The next quantity of BWT depends on the P alkalinity level and is given in the tables (see below). The best level is marked by the black circle and in any case must be between 100 and 150 ppm.

P alkalinity ppm CaCO ₃	BWT Lt/tonn
0	1
50	0.5
100	0.15
150	0
200	0
250	Blowdown

The boilers pH level should be kept between 10.5 and 11 (for water analysis see bulletins T/2 and T/3).

PRECAUTIONS

Alkaline product: do not swallow or breath, avoid contact with the eyes and skin. Rubber gloves and protective glasses are recommended. In case the product is in contact with skin or eyes, rinse thoroughly with fresh running water for at least 20 min. and seek medical assistance.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

F/2

ALKALINITY

TO MAINTAIN THE CORRECT ALKALINITY LEVEL IN BOILERS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Alkaline liquid product to maintain the correct alkalinity level in boilers.

APPLICATIONS

Easy to use liquid product.
Low dosage due to high concentration of the product.
May be mixed with other products designed for boiler maintenance, like HARDNESS CONTROL and BWT ONE SHOT.

INSTRUCTIONS

The start up quantity is 250 mls of ALKALINITY per each ton of water in the boiler.
The maintenance level recommended for pH alkalinity depends on the boiler's working pressure:

- **low pressure max 28 bar:**
between 100 and 150 ppm
- **medium pressure max 28-57 bar:**
between 90 and 130 ppm
- **high pressure above 57 bar:** between 10 and 25 ppm

Refer to test analysis to estimate maintenance dosage.

An additional 200 mls per ton in the boiler increases P alkalinity by 100 ppm.
The product may be introduced directly in the hot well or through any existing metering system. For water analysis see bulletins T/2 and T/3.

PRECAUTIONS

This is a caustic product. Use gloves and protective glasses. Avoid contact with eyes and skin. In case of contact with eyes rinse immediately with fresh running water and seek medical assistance. Do not keep near acid products.

PACKAGING

Non-returnable
- Plastic pails: 25 liters



UNI EN ISO 9001:2015

PIK KEMICAL

Chemical Technologies

F/3

HARDNESS CONTROL

BOILER WATER CONDITIONER TO PREVENT SCALES DUE TO CALCIUM AND MAGNESIUM SALTS

Technical Support:

pikkemical@pikkemical.it

Orders-Enquires:

pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Powder product based on alkaline phosphates.

ADVANTAGES

HARDNESS CONTROL transforms scaling salts like: carbons, sulphates, and calcium or magnesium chlorides in phosphates that do not adhere to the exchange surfaces and are easily blown down.

APPLICATIONS

- Dissolve HARDNESS CONTROL in the hot water of the condensate.
- Product is soluble more than 100 gr/lit at 20°C.
- Add the solution in the feed line of the pump through a metering device or add directly in the hot well.

INSTRUCTIONS

Star up quantity for a untreated system is 100 gr per ton of water in low pressure boilers and 10 gr per ton of water in high pressure boilers.

Maintenance quantity will increase or decrease depending on phosphate analysis.

Water hardness in boiler should be 0; the phosphate levels 15/25 ppm for high pressure boilers and 20/40 ppm for low pressure boilers.

For water analysis see bulletins T/2 and T/3.

PRECAUTIONS

In case of skin or eyes contact with the product or its solution, rinse thoroughly with fresh running water.

Keep in dry storage.

Close tightly after use.

PACKAGING

Non returnable

- Plastic pails 20 kg.

PIK KEMICAL

Chemical Technologies

F/5

OXYGEN CONTROL

CATALYZED SODIUM SULPHITE FOR RAPID REMOVAL OF OXYGEN DISSOLVED IN WATER

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

OXYGEN CONTROL is a liquid solution with sodium sulphite.

APPLICATIONS

OXYGEN CONTROL reacts rapidly to scavenge oxygen dissolved in water. In high and low pressure boilers, that require a good protection on the condensate lines, we recommend to use OXYGEN CONTROL and CONDENSATE CONTROL. The two products should not be mixed together: the first is slightly acid, while the second is strongly alkaline.

Add OXYGEN CONTROL separately and never with alkaline products.

ADVANTAGES

Liquid product easy to use; to be applied in low dosages.

INSTRUCTIONS

OXYGEN CONTROL is easily soluble in water. It may be introduced in the recommended quantities directly in the boiler or the hot well (see bulletin U/4).

The quantity depends on the oxygen actually dissolved. The sulphite levels in the boiler must be between 20 and 30 ppm.

In case of water that has not been treated before: 80 mls per each ton of water contained in the boiler as start up dosage.

Sulphite control analysis is determined with the aid of the SULPHITE TEST KIT AS144 supplied by our technical service.

For water analysis see bulletins T/2 and T/3.

PRECAUTIONS

Avoid contact with eyes and skin. In case of contact rinse thoroughly with fresh running water.

Seek medical assistance.

PACKAGING

Non returnable

- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

F/6

CONDENSATE

FOR PROTECTION OF CONDENSATE LINES IN STEAM SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

CONDENSATE is a liquid containing neutralizing amines readily miscible in water.

APPLICATIONS

CONDENSATE is a corrosion inhibitor used in steam and condensate systems. May be used for boilers up to 110 bar.

ADVANTAGES

Easy to use product. May be mixed with other products like HARDNESS and BWT.

INSTRUCTIONS

The quantity of CONDENSATE depends on carbon dioxide contained in the condensate. The product is applied through the condenser's feed pump to maintain the water pH level between 8.3 and 9 and a P alkalinity below 10 ppm. For water analysis see bulletins T/2 and T/3. May be employed together with HYDRAZINE. A recommended dosage for a 10 ton water boiler is 2,5 liters per day.

CONDENSATE can be fed continuously on the boilers water feed line or introduced daily in the hot well or in the expansion tank; do not pour on the surface but feed below the surface. For dosing system see bulletin U/4.

PRECAUTIONS

Irritating product. Avoid contact with the eyes and skin. In case of contact rinse thoroughly with fresh running water.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

F/7

PIK COAGULANT

PREVENTS AND ELIMINATES LIGHT OIL CONTAMINATION IN BOILERS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

PIK COAGULANT is an organic liquid compound with antifoam additives and is easily miscible in water.

APPLICATIONS

PIK COAGULANT is used especially in oil contamination in boilers. Coagulated oil increases its specific gravity and sinks as not adherent sludge, easy to remove with bottom blowdown. In case of consistent contamination by hydrocarbons a chemical cleaning is strongly recommended.

INSTRUCTIONS

PIK COAGULANT should be added directly in the boiler through a metering system on the water feed line. In alternative, dose directly in the hot well.

The quantity for a hydrocarbon contaminated boiler is of 200 cc per ton of water. This quantity should be reduced with improved conditions. During the use of PIK COAGULANT blowdown operations should be intensified.

PRECAUTIONS

Alkaline product, avoid contact with eyes and skin. In case of contact with eyes or skin, rinse thoroughly with fresh running water.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

G/3

D.W.T CONC

WATER CONDITIONER FOR DIESEL ENGINE COOLING SYSTEMS BASED ON PHOSPHONATE AND MOLYBDATE

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Liquid product based on phosphonate and molybdate. Modern and advanced alternative to first generation products based on nitrites and chromates.

APPLICATIONS

Treatment that inhibits very efficiently corrosion of cooling water systems like diesel engine cooling systems (jackets, pistons, injectors), air conditioning systems, etc.

ADVANTAGES

- Inhibits corrosion on metallic surfaces assuring excellent protection.
D.W.T CONC gives excellent protection against corrosion both for high temperature circuits typical of refrigerating systems of marine engines and low temperature circuits.
- Harmless for materials other than metals.
- Compatible with any type of glycol based antifreeze.
- Anticorrosion properties by pH buffer of the product ensures protection film stability.

INSTRUCTIONS

For an efficient circuit protection keep the molybdate level between 40 and 60 PPM
When possible always use distilled water and in any case with chlorides lower than 100 PPM.

Product can be dosed as follow:

- Manually in the compensation tank
- With an automatic dosing system (see bulletin U/4).

The start-up quantity for a system treated for the first time is 10 liters of D.W.T. CONC every 1000 liters

of circulating water.

Allow the next applications on the basis of MOLYBDATE concentration values checked with MOLYBDATE TEST KIT K.6720 (see bulletins T/1 and T/3).

Whenever MOLYBDATE concentration verified by the analysis is less than 40 PPM, add D.W.T CONC,

2 liters per ton of water in the circuit.

Thereafter repeat analysis after 4 hours.

For the cooling water control it's important to analyze also pH and chloride readings.

It's important to maintain always the following readings:

pH between 8.5 and 9.5 and chlorides below 100 PPM. In case of chlorides above 100 PPM bleed off repeatedly the system to bring to the correct reading.

PRECAUTIONS

Rubber gloves and protective glasses are recommended.

In case of contact with skin or eyes, rinse

thoroughly with fresh running water for 15 min.

PACKAGING

Non returnable

- Plastic pails 25 liters.

PIK KEMICAL

Chemical Technologies

G/4

NCLT

PROTECTION AGAINST CORROSION AND SCALES IN DIESEL ENGINE COOLING SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Liquid compound based on nitrites/borates with organic corrosion inhibitors, containing a colour indicator.

APPLICATIONS

Corrosion inhibitor treatment for cooling water system of diesel engines, compressors and central heating systems.

ADVANTAGES

- Protects all metal surfaces from corrosion.
- Deposits a microscopic protective film on exchange surfaces of the cooling system.
- The protective film stability is reinforced by an incorporated pH self buffering.
- Contains corrosion inhibitors designed to protect ferrous and non ferrous metals (except for aluminium see bulletins G/2, G/5 and G/7).
- Controls calcareous deposit formation.
- Contains a colour indicator that secures maintenance of correct concentration levels.
- Not chromed, this product does not cause pollution.
- The control test checks Sodium Nitrite (NaNO_2) levels.

IMPORTANT NOTE

The product contains a pink color indicator to see its presence in water even without test analysis. When the pink color of treatment water of the system turns to colorless, pH has fallen below 8.3 or there is no more NCLT in the system. In this case the Sodium Nitrite Test is recommended in order to restore normal treatment conditions of the treatment.

INSTRUCTIONS

Please refer to dosage table to determine quantity

INFORMATION

Anodes (magnesium and zinc) and galvanized coverings contained in the cooling system must be removed before treating the system with NCLT. These materials are not essential to water cooling systems and may cause deposits. NCLT may be added directly in the compensation tank or by an in line metering system (see bulletin U/4). Cooling systems strongly polluted by oil, fuel, grease or scales, must be cleaned before initiating treatment with NCLT using SEACLEAN for degreasing or DESCALING LIQUID to descale from limestone deposits. We recommend using distilled or low chloride content water (max 100 ppm). The start up quantity for a circuit is 10 liters per each circulating water ton. For maintenance analyse periodically and apply the following table.

MAINTENANCE LEVELS FOR CIRCUITS TREATED WITH NCLT

Sodium nitrite (NaNO_2):	from 2300 to 3000 PPM
Nitrite (NO_2):	from 1500 to 2000 PPM
Chlorides:	100 PPM max
pH:	from 8,5 to 9,5

$\text{NaNO}_2 : 1.5 = \text{NO}_2$

$\text{NO}_2 \times 1.5 = \text{NaNO}_2$

PIK KEMICAL

Chemical Technologies

NCLT DOSAGE TABLE

INITIAL DOSAGE 10 lt/ton							
Sodium Nitrite NaNO ₂	0	600	750	1200	1650	2250	3000
Nitrite NO ₂	0	400	500	800	1100	1500	2000
REDCOOLING D.W.T. lt/ton	10	8	6	4	21	0	Suspend dosage

Note: multiply Nitrite ppm (NO₂) by 1.5 to obtain Sodium Nitrite ppm (NaNO₂)
i.e. 2000 ppm of Nitrite is corresponding to 3000 ppm of Sodium Nitrite.

Use KIT PAK 1 to control Sodium Nitrite (NaNO₂), Chlorine and pH level.

PRECAUTIONS

Use gloves and protective glasses.

In case of contact with the eyes or the skin, rinse thoroughly with fresh running water for 15 min.
If problem continues, seek medical assistance.

PACKAGING

Non returnable

- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

G/6

FULL

ANTIFREEZE FOR COOLING WATER SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Antifreeze and anticorrosive liquid for cooling water systems. FULL is compatible with all nitrite and phosphonate products. Must be used diluted. Dilution percentage depends on the temperatures of the system to be protected.

INSTRUCTIONS

For the quantity required please refer to the table

PRECAUTIONS

This product is not toxic nor dangerous

PACKAGING

Not returnable
- Plastic pails 25 liters

DOSAGE AND CHARACTERISTICS OF ANTIFREEZE IN AQUEOUS SOLUTION

Weight %	Volume %	Spec. Gravity at 20 °C	Freezing point °C	Boiling point °C
0	0.0	1.000	0	100.0
10	9.1	1.013	-3.5	101.1
20	18.4	1.027	-8	102.2
30	28.0	1.040	-15	103.3
40	37.8	1.057	-24	104.9
50	47.8	1.067	-36	107.2
60	58.0	1.079	-50	109.9
70	68.4	1.090	-49	114.4
80	78.9	1.100	-47	122.2
90	89.4	1.108	-29	137.2
100	100.0	1.115	-13	197.2

PIK KEMICAL

Chemical Technologies

H/1

VAPTREET

EVAPORATOR TREATMENT TO PREVENT SCALE FORMATION AND FOAMING

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

LIQIVAP is a liquid product for the control of alkaline scaling (calcium carbonate and magnesium hydroxide) in all types of seawater distillation plant. Is a neutralised aqueous solution of a synthetic polymer based on hydrolysed maleic anhydride.

APPLICATIONS

Controls scale formation on inner exchange surfaces of marine evaporators.
Inject the recommended quantity of VAPTREET in the evaporator or in the seawater feed circuit.
Use the product pure or diluted.
Upon request a complete dosing kit is supplied containing a flow meter, valve and tank for product dosage (see bulletin U/4).

ADVANTAGES

Reduces cleaning operations.
Maintains evaporator efficiency and production at maximum level.
Reduces formation and carryover of foam.

INSTRUCTIONS & DOSAGE

The dose level required will depend on a number of factors, including the quality of the seawater feed, TBT, recycle brine concentration factor, the type of distillation plant. Typical dosage levels are 2,5 to 15 cc/m³ of feed water.

PRECAUTIONS

In case of contact with skin or eyes rinse thoroughly with fresh running water.
Keep sheltered out of the cold.

PACKAGING

Non returnable:
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

H/2

NO FOAM AGENT

TO ELIMINATE FOAMING IN SEWAGE SYSTEM

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Dense white coloured liquid, water based, is a mix of emulsifying anionic and non ionic compounds. Does not contain dangerous substances.

APPLICATIONS

Eliminates foam in water circuits and avoids carryover.
Is mainly used in biological sewage systems.

ADVANTAGES

Liquid product easy to use; requires minimum dosage.

INSTRUCTIONS

May be injected continuously through a metering pump or manually.
Usually, starting with 20 ppm, to be increased or decreased depending on results.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

H/3

ECOSPERSE

ANTIFOULANT AND CORROSION INHIBITOR IN SEA WATER COOLING SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

ECOSPERSE is a very efficient liquid product, inhibits and prevents marine growth, combining also anticorrosive properties. The low dosage required allows to be an extremely economical product.

APPLICATIONS

ECOSPERSE inhibits growth and development of microorganisms like barnacles, mussels, shells, sea algae, in sea water circuits, like condensers, pipeline, seawater (cross) pipes, ballast tanks. The film created by this product acts as anticorrosive agent in sea water systems, especially with reference to main and auxiliary condensers.

ADVANTAGES

Protects systems from corrosion
Inhibits growth formation
Acting as a film covering all areas treated, offers good protection between applications.
The product is compatible with all types of metals and gaskets.
ECOSPERSE may be employed also to control and inhibit fouling and corrosion in permanent ballast tanks.

INSTRUCTIONS

The first treatment with ECOSPERSE should be applied to clean circuits. If necessary to clean the seawater cooling system pipe before starting treatment with ECOSPERSE, please contact our technical service.

Apply 600 gr of product each 100 tons of water passing through the seawater cooling system for one hour every two days.

During the spring and summer months or on coastal trade, apply daily.

Injection points:

seawater strainers or directly on seachest connecting the injector on steam pipe or air vent always fitted in every vessel.

An automatic regulating system made of a tank (120 liters) with a proportional metering pump hooked to a timer and designed to inject the product in two different areas is available (see bulletin U/4).

PRECAUTIONS

Avoid any contact with the eyes and skin, In case of contact immediately rinse thoroughly with fresh running water. If any problem persists seek medical assistance.

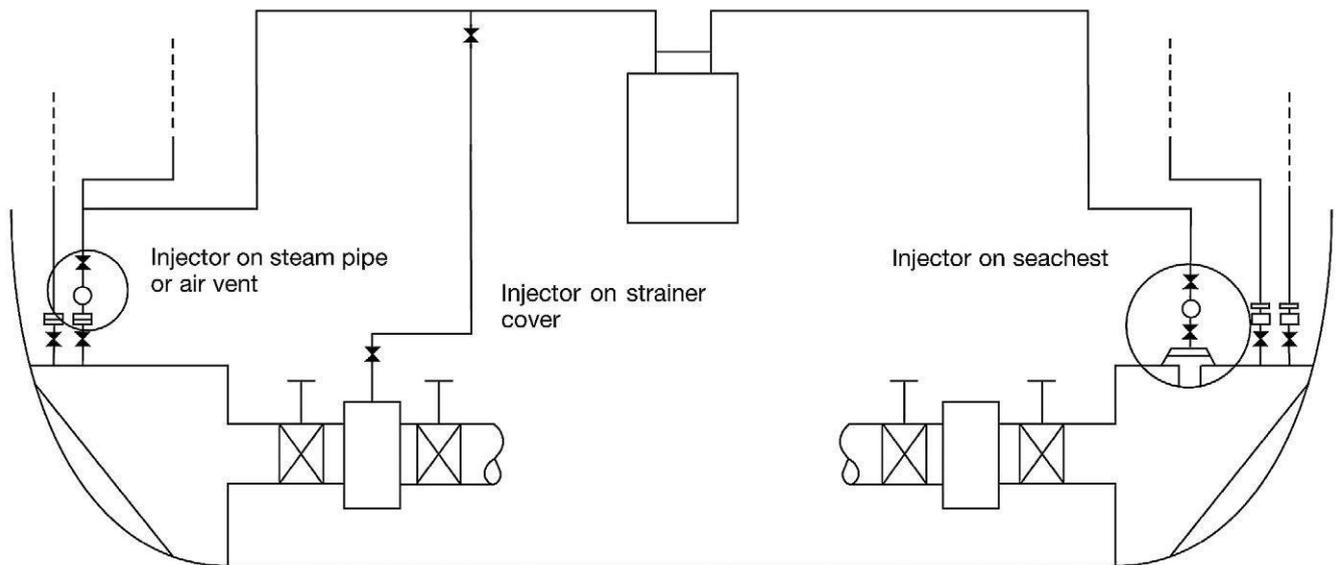
PACKAGING

Non returnable
- Plastic tanks 25 liters

PIK KEMICAL

Chemical Technologies

TYPICAL INSTALLATION OF ECOSPERSE DOSING EQUIPMENT



ECOSPERSE RECOMMENDED DOSAGE

Injection on seachests or strainers

DEEPSEA TRADING VESSEL

ECOSPERSE should be metered at the rate of 0.3 liters of every 100 tons of sea water flow over a period of one hour every 48 hours.

COASTAL TRADING VESSEL

ECOSPERSE should be metered at the rate of 0.3 liters every 100 tons of sea water flow over a period of 24 hours.

PIK KEMICAL

Chemical Technologies

H/4

POTABLE WATER STABILIZER

PREVENTS THE RED WATER PHENOMENON IN POTABLE WATER TANKS AND DISTRIBUTION PLANTS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

POTABLE WATER STABILIZER is a polyphosphate solution with strong stabilizing qualities, easily soluble in water.

APPLICATIONS

POTABLE WATER STABILIZER is a very secure product, may be used in potable water plants without any health risk for users. Is applicable also to hot water washing systems.

ADVANTAGES

POTABLE WATER STABILIZER avoids corrosion and scales in fresh water plants and storages, eliminating red water phenomenon.

INSTRUCTIONS

Quantities: 0.3 to 0.8 liters every 25 tons of potable water, depending on conditions. The product is dosed by an impulse watermeter or directly in the tanks.

PRECAUTIONS

The product is not toxic nor dangerous. In any case avoid contact with eyes; in case of contact, rinse with fresh running water.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

H/5

IPO-CHLOR 14%

BACTERICIDE DISINFECTANT FOR POTABLE WATER, STORAGE TANKS AND LINES

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Sodium hypochlorite liquid at %

APPLICATIONS

To disinfect potable water in aqueducts, water storage systems and sewage tanks.

ADVANTAGES

IPO-CHLOR 14% controls and eliminates bacteria, maintaining water potable.

Sodium hypochlorite at 14% is universally recognized as disinfectant of potable water by Health Departments and its use is approved for municipal water systems.

INSTRUCTIONS

In the point as far as possible from the potable water tank (Example highest deck – bridge), residual active chlorine must be maintained at a minimum level of 0.2 ppm. In the potable water tanks, maintain residue chlorine level between 0.5 and 2 ppm, which will guarantee an adequate antibacterial protection.

To obtain 2 PPM in a potable water tank, add 20 cc of IPO-CHLOR 14% each tonn of water. IPO-CHLOR 14% may be added manually or automatically at the water inlet point through a metering system connected with an impulse watermeter (see bulletin U/4).

Please contact our technical service for any further information.

To control the correct level of Chlorine in the water use CHLORINE TEST KIT with DPD1 Tablets (see bulletin T/3).

PRECAUTIONS

Alkaline product: do not swallow or inhale, avoid prolonged contact with eyes or skin. Use rubber gloves and protective glasses. In case of contact with eyes or skin, rinse thoroughly with fresh running water for at least 20 minutes.

PACKAGING

Non returnable
- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

H/6

OSMO ANTISCAL

FOR TREATMENT OF REVERSE OSMOSIS FRESH WATER GENERATORS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Liquid based on polymers to avoid layering deposits in reverse osmosis fresh water generators.

APPLICATIONS

Avoids scaling due to calcium carbonates and sulphates, barium sulphates and strontium sulphates.

Stable compound, may be employed in a large pH and temperature spectrum. Does not contain phosphates.

INSTRUCTIONS

OSMO ANTISCAL has proved to be more effective than sodium-exametaphosphates or commercial phosphonates.

Recommended product dose is based on salinity.

As a general rule we recommend following ratio:

- Sea water: 10 ppm (i.e. 10 gr per ton of water)
- Brackish water: 5 ppm (i.e. 5 gr per ton of water)

PRECAUTIONS

Avoid inhaling and contact with eyes and skin.

Use protective overalls, gloves and glasses.

In case of contact rinse thoroughly with fresh

running water for 15 min. Seek medical

assistance.

PACKAGING

Non returnable

- Plastic pails 25 liters da 25 litri.

PIK KEMICAL

Chemical Technologies

H/7

ULTRACLEAN/STERILGARDE

DISINFECTANTS FOR REVERSE OSMOSIS SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

ULTRACLEAN

Liquid product based on sodium bisulphite, used as biocide in reverse osmosis fresh water generators.

This product disinfects membranes and must be added continuously before the high pressure pump. ULTRACLEAN is also used during suspension periods of the system to block bacteria proliferation on the membranes.

APPLICATIONS

As disinfectant and polluting metal ions reducer in reverse osmosis plants.

ADVANTAGES

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

Apply continuously before the pump at a concentration of 60 ppm.

PRECAUTIONS

Avoid inhaling and contact with eyes and skin. Use protective overalls, gloves and glasses. In case of contact rinse thoroughly with fresh running water for 15 min. Seek medical advice.

PACKAGING

Non returnable
- Plastic pails 25 liters.

STERILGARDE

Liquid based on sodium hypochlorite, is used in water processing treatments, especially in reverse osmosis fresh water generators.

APPLICATIONS

Disinfectant that allows the complete elimination of every organic substance, concurs moreover the complete oxidation of the metals.

ADVANTAGES

- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

Add STERILGARDE either before or after the osmosis process.

Before:

add the indicated quantity in the point farthest from the membrane and filter the water treated with STERILGARDE through active carbon filters before it reaches the membranes. The ratio required is 4 mlg/lt.

After:

it maintains the water produced by the osmosis plant free of bacteria. A recommended level of chlorine of minimum 2 ppm must be maintained in the storage tanks.

PRECAUTIONS

Do not inhale. Avoid contact with skin and eyes. Use protective overalls, gloves and glasses. In case of contact rinse thoroughly with fresh running water for 15 min. Seek medical assistance.

PACKAGING

Non returnable
- Plastic pails 25 liters.

PIK KEMICAL

Chemical Technologies

S/8

MICROZYME

SEWAGE BIOLOGICAL TREATMENT, CLEANER AND DEODORANT

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

MICROZYME is a concentrated water blend of aerobic and anaerobic bacteria, selected to produce activated enzymes for the organic deposits digestion in sewage tanks.

MICROZYME if used continuously, create the bacterial flora necessary for the digestion of organic deposits with more efficiency and quickly.

APPLICATIONS

MICROZYME can be dosed through each toilet, lavatory or directly in sewage tanks.

MICROZYME can be used to keep cleaned and in efficiency sewage pipe lines, in substitution of acid / descaling / alkaline or ipo-chlorite based products, that had the inconvenience of create an hostile environment to enzymes able to eliminate organic residual (origin of deposits and bad smell).

ADVANTAGES

- It eliminates organic deposits and oil/grease deposits.
- It eliminates bad smells
- It avoids to employ dangerous products (acids or caustic)
- It avoids the necessity to clean mechanically sanitation systems
- It prevents obstructions in pipe lines
- Completely safe, not flammable, not toxic, biodegradable
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V (resolution MEPC.201(62)).

INSTRUCTIONS

Starting dosage: directly in tanks 1 ltr of MICROZYME for each 1000 ltr of capacity.

Time of activation from first dosage: 24-36 hours. Following dosages can be done daily 1 ltr for each 4000 ltr of capacity.

MICROZYME if used to clean pipe lines must be dosed in each toilet or lavatory 75-100 ml daily.

MICROZYME must be used at a pH range between 5.5 and 8.5 and a temperature between 10 and 44 °C. Sudden and extreme pH and temperature variations could compromise the efficiency of MICROZYME.

PACKAGING

Not returnable

- Plastic pails 25 ltr.

PIK KEMICAL

Chemical Technologies

CHLORINE

S/10

CHLORINE, GRANULAR AND TABLETS FOR SWIMMING POOLS AND JACUZZI SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

All these products are strong oxidizers, therefore do not mix or put in contact with other chemical products, especially acid.

DESCRIZIONE

Strong oxidants and disinfectants that, diluted in water, hydrolize, forming active chlorine in the more active form of hypochlorose acid.

GRANULAR CHLORINE

Sodium Dichloroisocianurate, 60% minimum chlorine

Granular Chlorine, rapidly soluble, is indicated for disinfection of swimming pool and Jacuzzi systems. It is strongly recommended to maintain pH between 7.2 and 7.6 with modifier of pH PLUS or pH MINUS.

Initial dosage:

150 gr per 10m³ of water.

Dilute the product in a plastic pail before putting it in the pool or tub or spread on the water surface.

Maintenance dosage:

10 or 20 gr per m³ of water a day also through metering pump, better if automatically controlled. Increase the quantities in case of increased crowding or higher temperatures.

In any case keep residual active chlorine at 1 ppm.

GRANULATED CALCIUM HYPOCHLORITE To disinfect water in swimming pools and Jacuzzi systems. Dosage: same of granular chlorine. The use of this product in PVC lined swimming pools is not recommended.

CHLORINE TABLETS 200 GR *Trichlorineisocianuric acid 90%*

Maxitabets with slow solubility for disinfection of pool water and Jacuzzi systems and tubs.

Standard dimensions of the tablets:

75mm dia x 25mm.

Dosage for pool water treatment:

4 maxitabs per 100 m³ of water, each week, to be introduced in the skimmers or in floating metering systems (do not position on the bottom of the pool). Constant metering by chlorine feeder preferably controlled automatically is recommended.

INFORMATION

These products are strong oxidizers and may be used for other disinfection purposes like sewage water, sewage tanks, etc.

In this case maintain a chlorine level of 2 to 5 PPM (for water analysis see bulletin T/3).

In swimming pools and Jacuzzi systems chlorine level should be maintained between 0.8 and 1.5 PPM.

PRECAUTIONS

Chlorine products may cause severe burns to skin and eyes. Do not inhale vapours. In case of contact, rinse thoroughly with fresh running water for at least 15 minutes.

Seek medical assistance.

PACKAGING

Non returnable

- Plastic pails 25 kg

PIK KEMICAL

Chemical Technologies

S/11

Ph MINUS

TO LOWER pH IN SWIMMING POOLS AND JACUZZI SYSTEMS - POWDER OR LIQUID

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

pH MINUS lowers pH and total alkalinity in swimming pool water.

pH level should be maintained between 7.2 and 7.6 in order to maximize chlorine disinfectant efficiency, to improve hygiene, reduce corrosion and prevent eye irritation and dry skin. Measure pH before each dose of sanitizer.

To avoid wide pH level oscillations, maintain total alkalinity between 60 and 120 ppm. Test alkalinity level each month.

APPLICATIONS AND INSTRUCTIONS

Measure pH water level. Determine required dosage.

Do not use more than 1 Kg x 40 m³ of water at a time.

Wait 24 hours, measure again the pH level and add more product if required.

Scatter pH MINUS on the swimming pool water surface.

In water with hardness between 5 and 20 ppm of CaCO₃, 5 to 15 gr. or mls of pH MINUS per each m³ of water, lowers the pH level by 0.1.

PRECAUTIONS

Use rubber gloves and protective glasses.

Avoid contact with eyes and skin. In case of contact with the eyes rinse thoroughly with fresh running water to at least 15 min.

PACKAGING

Not returnable

- Plastic pails 25 liters

PIK KEMICAL

Chemical Technologies

S/12

Ph PLUS

TO INCREASE pH IN SWIMMING POOLS AND JACUZZI SYSTEMS

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

pH PLUS increases water pH level in swimming pools. The pH level should be maintained between 7.2 and 7.6 to improve hygiene, to reduce equipment corrosion, eye irritation and dry skin and increasing chlorine efficiency with much less consumption.

Measure pH level before introducing or adding any sanitizer. To avoid excessive pH level fluctuation, maintain total alkalinity between 60 and 120 ppm. Test alkalinity each month.

APPLICATIONS AND INSTRUCTIONS

- Measure water pH level
- Determine the required quantity
- Scatter pH PLUS on the (water) surface of the swimming pool
- Measure again the pH level after turning on the circulating pump for 2 hours.
- Repeat if necessary.
- Keep pail tightly closed when not in use.
- Keep in mind that in water with hardness between 5 and 20 ppm of CaCO_3 , a quantity of pH PLUS between 5 and 15 gr or mls per m^3 of water, increases pH level by 0.1.

PRECAUTIONS

Irritating. Causes damage to skin and eyes. Wear rubber gloves and protective glasses. Irritating for nose and mouth. Remove and wash contaminated clothes.

PACKAGING

Non returnable
- Plastic pails 25 lts

PIK KEMICAL

Chemical Technologies

S/16

PIK MANO

NON ABRASIVE HAND CLEANER WATERLESS GEL

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION

Gelatinous hand cleaning paste.

APPLICATIONS

For removing dirt like grease, oil and sludge from hands or other body parts.

ADVANTAGES

- Removes oil, grease and sludge.
- Disinfects and hydrates the skin.
- Does not present any precautions.
- Does not contain abrasives or irritants.
- May be used daily.
- Pleasant fragrance.

Contains softeners to maintain skin in good conditions.

INSTRUCTIONS

Massage skin with PIK MANO , rinse with water. Appox. 5 gr. of gel are sufficient to clean hands.

PRECAUTIONS

In case of contact with the eyes rinse thoroughly with fresh running water.

PACKAGING

Non returnable
- Box of 4x5 Kg.

PIK KEMICAL

Chemical Technologies

S/17

PENETRON

PENETRATING OIL

Technical Support:
pikkemical@pikkemical.it

Orders-Enquires:
pikkemical@pikkemical.it

Ph. +39 0586940120

DESCRIPTION PENETRON

High speed penetrating oil to free frozen connections. Penetrating in millimicron cracks

APPLICATIONS

Used to loosen bolts and nuts, similar mechanical coupled parts that cannot be separated due to oxidation, avoiding oxyhydrogen flame work, breakage and time loss.

We recommend PENETRON to preserve from rust measurement and precision instruments.

ADVANTAGES

PENETRON, aside from being an exceptional loosening agent, preserves metal parts from oxidation.

PENETRON does not contain benzyl.

INSTRUCTIONS

Use with the drop applicator: a few drops are sufficient to loosen any stuck joint.

PRECAUTIONS

In case of contact with the eyes rinse thoroughly with fresh running water. Keep away from open fires.

PACKAGING

Non returnable

- Cartons 24 x 1000 cc bottles
- Cartons 24 x 400 cc spray bottles

DESCRIPTION ELECTROSPRAY

This is an insulating non conductive solvent used to clean any electrical equipment. It evaporates completely without residues and is non corrosive on metals.

PRECAUTIONS

In case of contact with the eyes, rinse thoroughly with fresh running water and if necessary, seek medical advice. Do not swallow or inhale vapors.

PACKAGING

Non returnable

- 400 cc spray bottle

PIK KEMICAL

Chemical Technologies

cooling water test kits

T/1

FOR SODIUM NITRITE, CHLORIDE, pH, MOLYBDATE

KIT PAK 1

DWT CONC / NCLT

MOLYBDATE TEST KIT

DWT CONC

COOLING WATER TEST KIT

when using: DWT CONC

NCLT

Use KIT PAK 1 to control Sodium Nitrite - Chloride & pH levels.

CONTAINING

- Plastic case - foam & instruction
- Plastic stirring rod
- 10 ml Syringe
- Plastic shaker tube
- 1 off, pack 250 chloride tablets (bottle)
- 1 off, pack 50 Nitrite No. 1 tablets
- 2 off, pack 250 Nitrite No. 2 tablets
- pH test strip pk 100

RECOMMENDED LIMITS

Nitrite: 1500-2000 ppm as NO₂
 or
 Sodium Nitrite: 2300-3000 ppm as NaNO₂

Chlorides: Maximum 100 ppm
 pH: 8.5 – 9.5

COOLING WATER TEST KIT

when using: DWT CONC

Use MOLYBDATE TEST KIT K.6720 to control Molybdate level.

CONTAINING TEST KIT K.6720

- Plastic case & instruction
- MOLYBDATE Comparator
- Molybdate refill R6720
- 10 mls Test tube

RECOMMENDED LIMITS (DWT CONC)

Molybdate: 40 - 60 ppm
 Chlorides: Maximum 100 ppm
 pH: 8.5 – 9.5

RECOMMENDED LIMITS (for Dia Prosim RD 25)

Molybdate: 700 ppm Mo
 Chlorides: Maximum 100 ppm
 pH: 8.5-9.5



Please note that with KIT PAK 1 values are expressed as Sodium Nitrite (NaNO₂)

PIK KEMICAL

Chemical Technologies

T/2

boiler water test kits

FOR pH, P ALKALINITY, M ALKALINITY, CHLORIDE, PHOSPHATES

KIT PAK 2

Low pressure boiler max 20 bar

KIT PAK 3

Medium-high pressure boiler

WATER TEST KIT

when using: BWT , ALKALINITY,
CONDENSATE

Use KIT PAK 2 to control P Alkalinity -
Chloride & pH levels.

CONTAINING

- Plastic case - foam & instruction
- Plastic stirring rod
- 250 ml calibrated bottle (plastic)
- 2 off, pack 250 alkalinity P tablets (bottle)
- 2 off, pack 250 chloride tablets (bottle)
- pH test strip pk 100

RECOMMENDED LIMITS

P Alkalinity: 100-150 ppm
Chlorides: Maximum 100 ppm
pH (boiler): 10.5 – 11.0
pH (condensed): 8.3 – 9.0

WATER TEST KIT

when using: ALKALINITY , HARDNESS
CONTROL,
CONDENSATE,
HYDRAZINE OR
SULPHITE

Use KIT PAK 3 to control P Alkalinity - M
Alkalinity - Chloride pH & Phosphates
levels.

CONTAINING

- Plastic case - foam & instruction
- 1 off, 2000 comparator
- 1 off, plastic stirring rod
- 1 off, funnel
- 1 off, filter papers
- 1 off, test tube brush
- 1 off, pH indicator strips 7.5 - 14.0
- 1 off, pH indicator strips 6.5 - 10.0
- 1 off, pH reagent
- 2 off, pack 250 alkalinity P tablets (bottle)
- 1 off, pack 250 alkalinity M tablets (bottle)
- 1 off, pack 100 phosphate HR tablets (bottle)
- 1 off, pack 250 chloride tablets (bottle)
- 1 off, 250 ml calibration tube

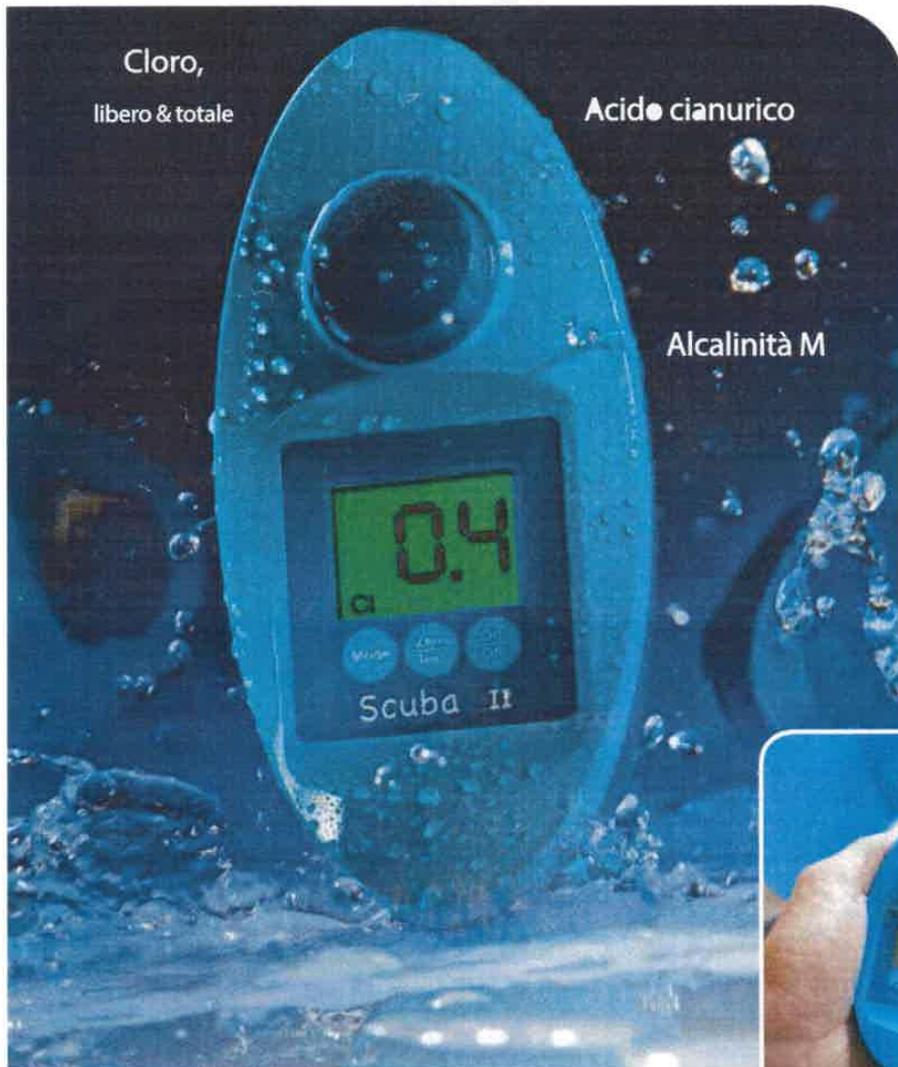
RECOMMENDED LIMITS

P Alkalinity: 90 - 130 ppm
M Alkalinity: less than twice "P"
Chlorides: Maximum 100 ppm
pH: 10.0 – 11.0
Phosphate: 20 - 40 ppm

REAGENTS TABLETS

- CHLORIDE TABLETS (bott. 250 pcs) code RCB-01
- NITRITE TABLETS N.1 (bott. 100 pcs) code RCB-02
- NITRITE TABLETS N.2 (bott. 250 pcs) code RCB-03
- P ALKALINITY TABLETS (bott. 250 pcs) code RCB-04
- M ALKALINITY TABLETS (bott. 250 pcs) code RCB-05
- PHOSPHATE H.R. TABLETS (bott. 100 pcs) code RCB-06

Scuba II - 14001001



Scuba II

Ogni proprietario di una piscina privata dovrebbe controllare regolarmente i valori principali dell'acqua. Solo in questo modo è possibile mantenere l'acqua sempre in uno stato ottimale e dosare correttamente i prodotti utilizzati per la relativa manutenzione.

Grazie a Scuba II è possibile controllare l'acqua della propria piscina in maniera rapida e corretta. La camera di misurazione integrata viene riempita immergendo il dispositivo nell'acqua della piscina. Aggiungendo il reagente in pastiglie si ottiene la tipica colorazione, misurata secondo il principio fotometrico e viene quindi indicato il valore di misurazione nel display.

In questo modo vengono rilevati in pochi minuti sei parametri: **Cl libero, Cl totale, pH, Bromo, alcalinità e acido clorurico**.

In questo modo l'analisi dell'acqua diventa un vero piacere e il bagno può iniziare senza esitazioni.

Se Scuba II dovesse cadere in acqua, non ci saranno conseguenze perché è in grado di galleggiare oltre che essere impermeabile.

Lasciatevi convincere da questo piccolo strumento per la piscina, perché vale la pena fare un bagno in tutta sicurezza nel rispetto delle norme igieniche.

Dati tecnici

Gruppo ottico LED a compensazione temperatura ($\lambda = 530 \text{ nm}$) e rafforzatore fotosensore

Alimentazione 2 batterie (AAA), capacità media ca. 90 misurazioni

Auto-off Spegnimento automatico dispositivo circa 5 minuti dopo l'ultimo azionamento dei tasti

Display Display LCD

Dimensioni (L x L x A) 145 x 70 x 45 mm

Peso 165 g (batterie incluse)

Condizioni ambientali Temperatura: 5 - 40 °C
Umidità rel.: 30 - 90 %, senza condensa

Conformità CE



Scuba II

Highlights

- Design moderno ed ergonomico
- Facile maneggiamento
- Custodia impermeabile*
- Ampio display

* Il 68 analogico, 1 ora a 0,1 metri galleggiante

Contenuto

- Scuba II in valigetta di plastica robusta
 - Reagente in pastiglie
- Ogni 20 DPD No.1 e Phenol Red Photometer
Ogni 10 DPD No.3, CyA-Test e Alka-M-Photometer
- 2 batterie (AAA)
 - Bacchetta
 - Istruzioni per l'uso
- Cod. art. 21 61 00

Ricariche

Artikel Best.-Nr.

Ricariche per Scuba II 52 56 00

20 pastiglie DPD No.1 Photometer
10 pastiglie DPD No.3 Photometer
10 pastiglie PHENOL RED Photometer
10 pastiglie CyA-Test
10 pastiglie Alka-M-Photometer

1 confezione = 12 pezzi



<http://scuba-ii.lovlbond.com>

Determinazione

Campo di misurazione

Risoluzione

Precisione

Cloro, libero

0,1 - 6 mg/l Cl_2

0,1 mg/l

0 - 1 mg/l $\pm 0,1 \text{ mg/l}$; 1 - 2 mg/l $\pm 0,2 \text{ mg/l}$
2 - 3 mg/l $\pm 0,4 \text{ mg/l}$; 3 - 6 mg/l $\pm 0,5 \text{ mg/l}$

Cloro, totale

0,1 - 6 mg/l Cl_2

0,1 mg/l

0 - 1 mg/l $\pm 0,1 \text{ mg/l}$; 1 - 2 mg/l $\pm 0,2 \text{ mg/l}$
2 - 3 mg/l $\pm 0,4 \text{ mg/l}$; 3 - 6 mg/l $\pm 0,5 \text{ mg/l}$

Valore pH

6,5 - 8,4 pH

0,1 pH

$\pm 0,2 \text{ pH}$

Acido clorurico

1 - 160 mg/l

1,0 mg/l

1 - 50 mg/l $\pm 10 \text{ mg/l}$; 50 - 160 mg/l $\pm 20 \text{ mg/l}$

Alcalinità M

0 - 300 mg/l CaCO_3

1,0 mg/l

$\pm 50 \text{ mg/l}$

Bromo

0,2 - 13,5 mg/l Br_2

0,1 mg/l

0 - 2 mg/l $\pm 0,2 \text{ mg/l}$
2 - 4 mg/l $\pm 0,4 \text{ mg/l}$
4 - 7 mg/l $\pm 0,8 \text{ mg/l}$
7 - 13,5 mg/l $\pm 1,1 \text{ mg/l}$