eurochem®

aviation, marine and industrial chemicals





COMPANY PROFILE

EUROCHEM was established in Athens, Greece in 1981, and soon became the leading manufacturing company in Chemical compounds and detergents, for cleaning and maintenance.

Our current production range includes over 2000 Chemical products for **AVIATION**, **MARINE**, **INDUSTRIAL USE**, **SPRAY-AEROSOLS** as well as **INSTITUTIONAL** and **HOUSEHOLD DETERGENTS**, in various packaging (bulk, drums, pails, cans, plastic bottles, aerosol).

EUROCHEM functions according to the International Quality Standards and is certified with the **Quality Standard ISO 9001:2008**

For design, production, and sales of:

A. Cleaning and maintenance Chemicals for Marine,

Aviation and Industrial use.

B. Detergents.

The majority of them are manufactured under U.S. Military Specifications and most of them are approved by authorized organizations such as: The U.S. Army (QPL), Boeing, Public Power Corporation, The Greek Navy,

The Greek State General Chemical Laboratory etc. and in general has all the approvals and certificates.

Eurochem's activities are expanded all over the world, supplying Shipping, Aviation and Industry Companies with its variety of products.

In 1990 **EUROCHEM** became the head of the **EUROCHEM GROUP** of Companies making a turnover of 20.000.000 U.S.D. per year.

Our Company's continuous research in the field of Chemical technology, together with our experienced professional personnel, ensures quality and reliability.

EUROCHEM is proud to offer its customers **«The complete solution in Maintenance»**

EUROCHEM S.A.

4 RAFAILIDOU St. 177 78 TAVROS, ATHENS, GREECE TEL.: +30 210 48 36 321-7, FAX: +30 210 48 36 331-2 E-mail: eur98@otenet.gr - http://www.eurochem.gr, www.eurochemgr.com

hereby grants to:

EUROCHEM S.A.

4 RAFAILIDI STR., TAVROS, GR-17778

whose management system is in conformance with the standard:

ELOT EN ISO 9001:2015

the right to be listed in the IQC Registry for the following scope(s):

DESIGN, DEVELOPMENT, PRODUCTION AND SALES OF:
A.CLEANING AND MAINTENANCE CHEMICALS FOR
MARINE, AVIATION AND INDUSTRIAL USE
B.DETERGENTS

Signed





on behalf of IQC

This Certificate Number GR/035/2018-1
ISSUED ON 23/11/2018

IS VALID UNTIL



22/11/2021

hereby grants to:

EUROCHEM S.A.

4 RAFAILIDI STR., TAVROS, GR-17778

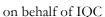
whose management system is in conformance with the standard:

ELOT EN ISO 14001:2015

the right to be listed in the IQC Registry for the following scope(s):

DESIGN, DEVELOPMENT, PRODUCTION AND SALES OF: A. CLEANING AND MAINTENANCE CHEMICALS FOR MARINE, AVIATION AND INDUSTRIAL USE **B. DETERGENTS**

Signed

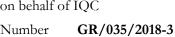


This Certificate Number ISSUED ON

23/11/2018

IS VALID UNTIL

22/11/2021







hereby grants to:

EUROCHEM S.A.

4 RAFAILIDI STR., TAVROS, GR-17778

whose management system is in conformance with the standard:

ELOT EN ISO 27001:2013

the right to be listed in the IQC Registry for the following scope(s):

DESIGN, DEVELOPMENT, PRODUCTION AND SALES OF:
A.CLEANING AND MAINTENANCE CHEMICALS FOR
MARINE, AVIATION AND INDUSTRIAL USE
B.DETERGENTS

Signed





on behalf of IQC

This Certificate Number GR/035/2018-9
ISSUED ON 29/5/2020

IS VALID UNTIL 28/5/2021



hereby grants to:

EUROCHEM S.A.

4 RAFAILIDI STR., TAVROS, GR-17778

whose management system is in conformance with the standard:

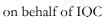
OHSAS 18001:2007 / ELOT 1801:2008

the right to be listed in the IQC Registry for the following scope(s):

DESIGN, DEVELOPMENT, PRODUCTION AND SALES OF:
A.CLEANING AND MAINTENANCE CHEMICALS FOR
MARINE, AVIATION AND INDUSTRIAL USE
B.DETERGENTS

Signed





This Certificate Number ISSUED ON

23/11/2018

GR/035/2018-6

IS VALID UNTIL

22/11/2021





EUROCHEM S.A. is a leading manufacturer of high quality marine chemicals. Through our continuous research and development of new products we are able to offer an extensive range of advanced technology marine chemicals for improvement of problems associated with marine application.

Our major applications include but are not limited to:

MAINTENANCE CHEMICALS

- -Solvent based degreasers & tank cleaners
- -Water based degreasers & tank cleaners
- -Carbon removers
- -Oil dispersers
- -Stainless steel treatment
- -Derusting & descaling compounds
- -Electrical cleaners

WATER TREATMENT CHEMICALS

- -Boiler water treatment
- -Evaporator & RO treatment
- -Cooling water treatment
- -Potable water treatment
- -Water test kits
- -Antifouling treatment for seawater systems

FUEL OIL ADDITIVES

SANITATION PRODUCTS





MARINE CHEMICALS

<u>PRODUCT</u>	<u>DESCRIPTION</u>
	A. SOLVENT BASED DEGREASERS & TANK CLEANERS
OIL REMOVER	Heavy duty, liquid solvent, emulsion cleaner, for oil and grease removal.
OIL REMOVER-S	Liquid product as the above, but more efficient.
TANK WASH	Emulsion cleaner for double bottom tanks at sea.
TANK WASH SUPER	Liquid product as the above but more efficient.
SEPARATOR CLEANER	Emulsion cleaner for oil filters and DE LAVAL.
LECTROKLEEN – 7	Solvent cleaner for spare parts and equipment. No rinsing required.
	<u>B. WATER BASED</u> <u>DEGREASERS & TANK CLEANERS</u>
ARR-LIQUID	Heavy-duty general use alkaline cleaner suitable for cleaning tanks from vegetable and animal oils.
ARR-SAFETY-LIQUID	Non-caustic general use cleaning liquid, suitable for cleaning tanks from vegetable and animal oils.
KLEENOL – 2000	Alkaline product as the above but viscous. Suitable for vertical surfaces.
EUROCLEAN	Water based cleaner / degreaser. Environmentally friendly and safe to use.
K – 151	A general-purpose liquid cleaner for engine deck, superstructure and accommodation.
AQUA-KLEEN	High foaming, general use cleaner.
BELCAN – T	Disinfectant – cleaner – deodorant for ship tanks.
	C. CARBON REMOVERS
CARBON REMOVER	Decarbonizer. Removes heavy carbon residues, grease, oil, engine varnishes, sticky gums etc.
A.C.C. (Air Cooler)	Powerful solvent emulsion cleaner for in-service cleaning of diesel engine air-coolers and turbochargers.
AIR COOLER CLEANER	Powerful solvent emulsion cleaner for in-service cleaning of diesel engine air-coolers and turbochargers.

EUROCHEM S.A.

 $4\ RAFAILIDOU\ St.\ 177\ 78\ TAVROS,\ ATHENS,\ GREECE$

TEL.: +30 210 48 36 321-7, FAX: +30 210 48 36 331-2



<u>PRODUCT</u>	<u>DESCRIPTION</u>
	D. STAINLESS STEEL TREATMENT
PICKLING FLUID	Pickling fluid for stainless steel tanks and pipelines.
PASSIVATING FLUID	Passivation fluid after pickling treatment.
	E. DERUSTING & DESCALING COMPOUNDS
CEMENT REMOVER	Liquid acid type product that effectively removes cement from cement transportation vehicles reservoirs, for the transfer of cement to vessels, machinery, pumps, wooden floors etc.
DESCALER	Acid liquid product suitable for the removal of heavy oxides and water scales from boilers
SCALE – OFF – LS – 30	Acidic liquid product as the above but safe on aluminum and its alloys.
SCALE OFF - S (Descaler Powder)	Powder for water scale removal, safe to all metals.
RUST REMOVER	Rust and metal tarnish removal liquid.
K-NUTRO	An alkaline product which is used after cleaning with acidic solutions (such as SCALE OFF, DESCALER etc) for neutralizing – passivating the surfaces and preventing further oxidation.
	F. ELECTRICAL CLEANERS
LECTROKLEEN-Q (SUPER FAST)	Safe, non flammable, quick evaporated cleaning solvent. Ideal for the in place-cleaning of electrical motors and equipment. Requires no wiping and leaves no residue.
LECTROKLEEN- D4-FAST	Degreasing for electric motors. Inflammable with quick evaporation rate.
LECTROKLEEN - S (MEDIUM)	Liquid as the above. Works harder, has a high flash point, lower evaporation rate and is ideal for use in warm climates.
LECTROKLEEN ODORLESS	Completely odorless, non-toxic, slow evaporating electric motors and parts cleaner with high flash point.

EUROCHEM S.A.

4 RAFAILIDOU St. 177 78 TAVROS, ATHENS, GREECE

TEL.: +30 210 48 36 321-7, FAX: +30 210 48 36 331-2



<u>PRODUCT</u>	<u>DESCRIPTION</u>				
	G. FUEL OIL TREATMENT				
KEM – FOT	Liquid product for the pre-combustion conditioning treatment of residual fuel oils. Prevents stratification of fuel, disperses sludge and keeps clean the injectors.				
KEM – DP - FOT	Liquid product with catalysts which improves the pre and post combustion stages. Reduces the formation of Carbon, Sulfur and Vanadium deposits.				
KEM-DP-32-FOT	Fuel treatment liquid product for slow speed diesel engines. Prevents Sulfur and Vanadium deposits.				
KEM-DP-321-FOT	Product similar to the above but for medium speed diesel engines.				
KEM – SOOT	Dry powder compound formulated for safe removal of soot and firescale deposits from diesel engines exhaust systems.				
ANTIFROZEN OIL-25	Flow improver and pour point depressant for fuel oils.				
	<u>H. OIL DISPERSERS</u>				
OIL – DISPERSER	Oil spill dispersant used in sea water. Non toxic, liquid product.				
DISPERSER-B	Oil spill dispersant water based. Non toxic, liquid product.				
	I. BOILER WATER TREATMENT				
KEM – FOS - L	Liquid product boiler water conditioner for low-pressure boilers. Controls water hardness and adjusts the alkalinity.				
KEMOX - L	Liquid catalyzed sodium sulphite oxygen scavenger.				
OXYAMINE	Liquid oxygen scavenger and boiler system passivator.				
ALKALINITY CONTROL	Concentrated alkaline liquid providing the adjustment of the water alkalinity				
KEM – HARD	Dry powder used for the reduction of hardness in boiler water system.				
LIQUID COAGULANT	Liquid blend of colloids for the conditioning of the sludge.				
CONDENSAMINE	Concentrated liquid neutralizing agent for corrosion control in condensate. Neutralizes the acid occurring in the condensate system.				

EUROCHEM S.A.

 $4\ RAFAILIDOU\ St.\ 177\ 78\ TAVROS,\ ATHENS,\ GREECE$

TEL.: +30 210 48 36 321-7, FAX: +30 210 48 36 331-2



<u>PRODUCT</u>	<u>DESCRIPTION</u>
	J. EVAPORATOR & COOLING WATER TREATMENT
KEM - ET	Concentrated liquid product for controlling scale and foaming in evaporators.
DISPERSOL – 2054	Liquid product for controlling scale in reverse osmosis installations.
ADICO – NC – L	Liquid product for scale and corrosion control in closed cooling water systems, without chromates.
	K. ANTI-FOULING TREATMENT FOR SEAWATER SYSTEMS
EUROSPERSE	A very effective liquid antifouling corrosion inhibitor. Does not permit the marine growths such as algae, shellfish and micro-organisms.
SARMOL 4000	L. HAND CLEANERS Liquid hand cleaner.
HADISON	Paste hand cleaner for cleaning of heavy soil.
ALKALINITY TEST KIT	M. WATER TEST KITS
CHLORIDE TEST KIT	
CHLORIDE TEST KIT	
PHOSPHATE TEST KIT	
NITRITE TEST KIT	
HARDNESS TEST KIT	
pH 0-14 TEST KIT (strips)	
pH METER ELECTRONIC	
SULPHITE TEST KIT	
BOILER WATER TEST KIT	
COOLING WATER TEST KIT	

EUROCHEM S.A.

 $4\ RAFAILIDOU\ St.\ 177\ 78\ TAVROS,\ ATHENS,\ GREECE$

TEL.: +30 210 48 36 321-7, FAX: +30 210 48 36 331-2 E-mail: eur98@otenet.gr - http://www.eurochem.gr, www.eurochemgr.com



SPRAY AEROSOLS



2001 - PENETROL

A new type of penetrating oil with anticorrosive properties. Loosens rust quickly and frees nuts, bolts, screws, etc.

Also offered with an extension for easier use.

WATER DISPLACER

Water, moisture and humidity displacer that leaves an ultra-thin protective film. Maintains and protects all electrical equipment. Prevents oxidation and corrosion. Stops leakage and arcing. Lubricates, penetrates and frees rusted parts. Allows quick starting of wet ignition systems.

2002 - LECTROKLEEN

Fast evaporating electric equipment cleaner. Suitable for motors, generators, coils, etc. Leaves no residue and has a high dielectric constant.

2003 – ELECTRONIC CONTACT CLEANER NEW FORMULA Very fast evaporating contact cleaner for all types of electrical and electronic equipment. Suitable for electronic components, circuits, switches, potentiometers, TV's, VCR's, etc.

203 – ELECTRIC CONTACT

&
ELECTRONIC SYSTEMS CLEANER

Environmentally friendly, new technology, fast evaporating contact cleaner for all types of electrical and electronic equipment.

<u> 2004 – STARTER</u>

Cold engine starter. Suitable for marine diesel engines, automobiles, trucks, agricultural machinery, cranes, etc.

2005 – CARBURETOR & INJECTION CLEANER Specially formulated to clean carburetors (interior - exterior), injection systems and input valves.

<u>2006 – IS</u>

Rust guard. Long lasting protective coating for spare parts, outboard engines, cables, metallic surfaces etc. (hard film) This type of hard film gives better results against corrosion in relation with other products which form a soft film.

2007 – M SPATTER OFF

Silicone free product used on welding machines. Cleans contact tips and gas nozzles. Protects the nozzle tip and the surface from spatters.

EUROCHEM S.A.

4 RAFAILIDOU St. 177 78 TAVROS, ATHENS, GREECE TEL.: +30 210 48 36 321-7, FAX: +30 210 48 36 331-2



- 2 -

2008 - CRACK DETECTION KIT

A set composed of three products, CLEANER – PENETRANT - DEVELOPER for the detection of cracks on metal surfaces.

2009 - SOL

Dashboard polish for cars and furniture suitable for surfaces made of real or artificial leather, plastic, wood and inox.

2010-CHAIN LUBRICANT

Lubricates, reducing wear caused by strand abrasion and gear tooth contact. Suitable for conveyor systems, motorcycles, agricultural machines, construction engines, and marine systems.

2015 - LITHIUM GREASE (WHITE)

Excellent lubricant for long lasting lubrication. Drastically reduces friction and wear of metal and withstands at temperatures up to 150°C protecting from corrosion.

2016 - SILICONE LUBRICANT AND MOLD RELEASE

Silicone lubricant for plastic and metallic equipment. Ideal for use as a release agent with all molds of aluminum or steel in extrusion plastic machines. Ideal for treadmills.

AFRO – CLEANER

General use foam for cleaning with antistatic properties. Used on hard and soft plastic, leather and fabric.

CUTTING AND TAPPING OIL

Blend of oils and cooling agents to improve CUTTING, DRILLING, BORING, MILLING, TAPPING etc.

ALUMINUM ANTI-SEIZE

Anti-seize lubricant containing aluminum submicron particles, capable to eliminate galvanic and molecular corrosion, stopping seizing between mated metal parts. Used between connected metal parts, screws, nuts, etc.

DUST REMOVER

High-pressure product (non-flammable). Removes dust and residue from computers, televisions, VCR's and all electronic components.

BRAKE & CLUTCH CLEANER

Fast evaporating brake cleaner.

EUROCHEM S.A.



-3-

2017 – GRAFFITI REMOVER

Removes graffiti from surfaces.

<u>2018 – FREEZING LIQUID</u>

Freezing liquid – non flammable.

<u>2019 –</u> <u>AIR CONDITIONER CLEANER</u> Very effective foam. Cleans and disinfects all air conditioner systems. Eliminates unpleasant odors.

BUBBLE FLUID

Liquid used for detecting possible leaks in gas and pressurized gas/air lines in facilities, automobiles, trucks, tanks, etc.

OTHER - MISCELLANEOUS

HADISON Waterless hand cleaner (paste). (1 kg packed in cartons of 12 pieces).

HADISON-L Liquid hand cleaner.

Water finding paste for petroleum distillates. (Tubes 110 gr. packed in cartons of 25 pieces).

K – 2025 Thick, heavy duty, paint stripper developed to strip

multiple coats of paint.

Powerful drain opener that unclogs the sewage (sinks, tubs, W.C., baths, sewers, drains, etc.).

Provides fast, potent performance to clear blockages. No mechanical equipment is needed.

blockages. No mechanical equipment is needed.

Thin, liquid metal treatment compound which, when applied to rusted metal, chemically changes

the rust (iron oxide) into iron phosphate.

RUST CONVERTER Therefore moisture and oxygen do not attack the

metal. The surface produced is an inert, hard and grayish surface which will serve as a firm base for

paint.



CATALOGUE OF LIQUID & POWDER DETERGENTS FOR PROFESSIONAL USE

No	SARMOL	DESCRIPTION	PACKAGE	KGS/ PACK.	
		LAUNDRY PRODUCTS			
1	Extra 2010	Powder detergent with controlled foaming « « « «	Bag Bag	20 4,5	
2	2010-L	Liquid detergent for washing machines ideal for all temperatures, all kinds of fabrics especially colored, very economical: use 1,5% of product to the total weight of the load.	Drum Pail Pail Pail	180 25 15,5 5	
3	CARPET SHAMPOO	Special liquid for the cleaning of all kinds of carpets. « « « « « « «	Drum Pail Pail Pail	180 25 15,5 5	
4	2020	Liquid softener for laundries. « « « « « « « « «	Drum Pail Pail Pail	160 20 13 4	
5	4040	Reinforced fabric whitener suitable for all temperatures.	Bag	15	
6	ADDITIVE A-RR	Special liquid for removing rust from clothes.	Pail Pail	12 4	
		DISH WASHING MACHINE PRODUCTS			
7	2080	Dish and glass powder detergent.	Bag Bag	15 3	
8	2080-L	Dish and glass liquid detergent . « « « « « « «	Pail Pail Pail	23,5 14,5 4,7	
9	6080-L	Dish and glass liquid detergent for professional automatic washing machines.	Pail Pail Pail	23,5 14,5 4,7	
10	2090	Liquid rinse aid for glass and dish washing machines. « « « « «	Pail Pail Pail	21 13 4	
11	6090	Liquid rinse aid for industrial dish washing machines. « « « « «	Pail Pail Pail	20 13 4	

TEL.: +30 210 48 36 321-7, FAX: +30 210 48 36 331-2 E-mail: eur98@otenet.gr - http://www.eurochem.gr, www.eurochemsa.com



-2-

No	SARMOL PRODUCTS	DESCRIPTION	PACKAGE	KGS/ PACK.	
12	5030	Liquid for removing and cleaning salt	Pail	25	
		deposits from the interior walls of washing	Pail	15	
		machines.	Pail	5	
		GENERAL CLEANING PRODUCTS			
13	2000	Liquid detergent for dishes and kitchen	Pail	20	
		utensils.	Pail	13	
		« « « «	Pail	4	
14	2005	Liquid detergent for dishes and kitchen	Pail	20	
		utensils.	Pail	13	
		« « « «	Pail	4	
15	CHLORO	Viscous liquid for general cleaning with	Pail	22,5	
	2 in 1	chlorine. Can be used for cleaning and	Pail	14	
		disinfecting floors, kitchens, sinks, toilets	Pail	4,5	
		etc.			
16	PLEDIN	Strong liquid for general cleaning (floors,	Pail	20	
		walls etc.)	Pail	13	
		« « « «	Pail	4	
17	PLEDIN	Strong liquid for general cleaning.	Pail	20	
	PLUS	« « « «	Pail	13	
		« « «	Pail	4	
18	2030-P	Viscous liquid for general cleaning (floors,	Pail	20,5	
		walls etc.)	Pail	13	
		« « « «	Pail	4	
19	6030	Viscous liquid for general cleaning (floors,	Pail	20	
		walls etc).	Pail	13	
		« « « «	Pail	4	
20	2040	Liquid detergent disinfectant	Pail	20	
		« « «	Pail	13	
		« «	Pail	4	
21	2050	Liquid disinfectant for the toilets. Due to	Pail	22	
		its special composition cleans effectively	Pail	14	
		scales and yellow spots.	Pail	4,3	
22	2060	Bleaching, scented liquid.	Pail	22	
		« « «	Pail	14	
		« « «	Pail	4,4	
23	2065	Bleaching liquid unscented.	Pail	22	
	2000	« « «	Pail	14	
		« « «	Pail	4,4	

EUROCHEM S.A.



- 3 -							
No	SARMOL PRODUCTS	DESCRIPTION	PACKAGE	KGS/ PACK.			
24	2070	Shampoo for rugs and carpets with rich foam.	Pail Pail Pail	20 13 4			
25	2070/NF	Shampoo for rugs and carpets with low foam. « « « « « «	Pail Pail Pail	20 13 4			
26	2200	Liquid window cleaner. « « « « «	Pail Pail Pail	19,5 13 4			
27	3020	Special liquid descaler for removing salt deposits from water taps, wash basins, enameled surfaces, stainless steel. No rubbing is necessary.	Pail Pail Pail	20 13 4			
28	3030	Self shining floor polish « « « « «	Pail Pail Pail	20 13 4			
29	3035	Liquid for removing old floor polish layers. « « « « « «	Pail Pail Pail	20 13 4			
30	3050	Viscous liquid for cleaning ovens and electric cooker hot - plates. Not recommended on aluminum and painted surfaces.	Pail Pail Pail	23 14 4,5			
31	4000	Hand cleaning cream for soap dispensers. « « « « «	Pail Pail Pail	20 13 4			
32	6040	Hand cleaning cream for soap dispensers « « « « «	Pail Pail Pail	20 13 4			
33	MATROL	Special liquid for cleaning floors, walls and iron objects. Removes salt deposits, rust and oil stains.	Pail Pail Pail	25 15 5			
34	DESCALER	Special liquid for the removal of salt deposits. « « « « «	Pail Pail Pail	23,5 14,5 4,7			
35	BIO TREAT LIQUID	SANITATION SYSTEM TREATMENT Concentrated liquid assists in keeping drains, taps and lines clean and clog free.	Pail Pail Pail	20 13 4			

[■] Please observe that package sizes may vary from Country to Country.



OIL - REMOVER - SUPER (BILGE CLEANER)

Description

OIL-REMOVER-SUPER is a solvent emulsion cleaner with surfactants for fast effective cleaning. Does not contain chlorinated solvents.

Applications

OIL-REMOVER-SUPER is ideal for removing mineral oils and greases from machinery parts, diesel engine exteriors, compressors exteriors, tank tops, bulkheads, decks, bunker tanks etc. Also is suitable for engine rooms decks and spot cleaning/degreasing of oil tanks.

Advantages

OIL-REMOVER-SUPER is safe for all metals, glass, plastic, wood and painted surfaces. Loosens and breaks up deposits, leaves oil and grease free surfaces, has a strong emulsifying action and it is easy to use. OIL-REMOVER-SUPER can be used as an all purpose degreaser.

Usage

OIL-REMOVER-SUPER may be used neat or diluted with petroleum or water in varying concentrations depending on the heaviness of the soil by soaking, spraying or combined with scrubbing.

<u>Soaking</u>: Parts are immersed in OIL-REMOVER-SUPER. Allow deposit to be broken up and loosened before removal. Then rinse off with water.

<u>Spraying</u>: Apply OIL-REMOVER-SUPER over all soiled areas. Allow time for OIL-REMOVER-SUPER to act, between 15-30 minutes, then rinse off by water hose.

<u>Scrubbing</u>: Use OIL-REMOVER-SUPER neat and agitate by scrubbing where soiling is stubborn. Rinse off with water.

Butterworth or steam cleaning machines: Use concentration of 0,1-1% at the nozzle.

Specification

Appearance : Colorless liquid Specific gravity : 0.78 ± 0.01 Corrosive action : Metal, none Paint, none

Rubber, slight swelling.

Caution

OIL-REMOVER-SUPER is non toxic and not hazardous. Avoid contact with skin and eyes. In case of contact rinse thoroughly with water. Standard protective clothing is necessary when handling.

Packaging

Non returnable 210 lt. drums and 30 lt. pails.



(DISC CLEANER)

DESCRIPTION

SEPARATOR CLEANER is an acidic liquid product containing surfactants, emulsifying agents, inhibitors and solvents.

APPLICATION

SEPARATOR CLEANER is suitable for removing all heavy tenacious deposits which collect in fuel and lube oil centrifugal stainless steel separators (DE LAVAL) and filters.

ADVANTAGES

SEPARATOR CLEANER permits in situ-cleaning avoiding dismantling of unit, leaves no film or residue, cleans down to metal surfaces and improve efficiency of centrifuge installation.

USAGE

SEPARATOR CLEANER can be used by recirculation when the cleaning of separators discs or filters is done in-situ and by immersion or spray when the cleaning is done on individual discs or filters.

SEPARATOR CLEANER may be used neat or diluted down to 20% by volume with fresh water. Depending on the amount of contamination the cleaning operation will vary from 30 minutes to 4 hours. After cleaning rinse thoroughly with fresh water.

CAUTION

Irritating to eyes and skin. In case of contact rinse thoroughly with plenty amount of water.

PACKAGING

It is available in non returnable plastic pails of 30 lt or drums of 210 lt.



TANK WASH - S

Description

TANK WASH - S is a liquid compound containing petroleum solvents, emulsifying detergents and surface active agents, for cleaning tanks of double bottom at sea.

Application

TANK WASH - S is formulated for cleaning and gas-freeing double bottom, deep tanks and other fuel oil bunker tanks at sea, degreasing and cleaning engine cooling water systems, and removing oil and greases from soiled surfaces.

Advantages

TANK WASH - S has a high solvent power, penetrates rapidly, makes an emulsion in fresh or sea water, is an effective and economical product, does not produce corrosion on metal surfaces, is low toxic and has a high cleaning action provided by ship's motion.

Usage

Cleaning and gas freeing of double bottom and deep tanks.

- 1. Drain off all existing fuel and rinse with plenty of sea water. Drain off all residues.
- 2. Ensure that all valves to and from the tank are closed.
- 3. Add 1,5 to 3 liters of TANK WASH S for 1000 liters of

water, and fill tank up to 75% of the volume tank with sea water.

- 4. Apply heating to 60 °C and maintain for 48 to 96 hours.
- 5. Discharge and strip tank. Rinse tank with sea water.
- 6. A second dose of 1 to 1,5 liters of TANK WASH S following the same procedure will give excellent results

Cleaning of cargo tanks by injecting machine.

TANK WASH - S can be used for removing oil and greases from the soiled surfaces of cargo tanks by means of an injecting machine dilute with sea water.

General cleaning methods.

TANK WASH - S can be used as a common degreaser neat or diluted with petroleum or water in varying concentrations depending on the heaviness of the soil by soaking, spraying or combined with scrubbing. Allow time for TANK WASH - S to act, between 15-30 minutes, then rinse off by water hose.

Caution

TANK WASH - S is non toxic and not hazardous. Avoid contact with skin and eyes. In case of contact rinse thoroughly with water. Standard protective clothing is necessary when handling.

Packaging

Non returnable 210 lt. drums and 30 lt. pails.



ARR- SAFETY LIQUID (NON CAUSTIC ALKALINE CLEANER)

Product description

Non caustic water based alkaline cleaner, containing powerful solvents, corrosion inhibitors and biodegradable compounds.

Does not contain caustic substances is not flammable, economical and it is safe for all kind of metals including Aluminum, Zinc, Copper, Tin and painted surfaces.

ARR-SAFETY LIQUID minimizes the extreme hazards caused to the personnel during handling caustic based materials.

Applications

ARR- SAFETY LIQUID is efficient in cleaning heavy duty cargo tanks, discharging them from dry, semi-dry and non-drying natural oils and fats. It is used to remove a wide range of petrochemicals, alcohols and light hydrocarbons.

ARR-SAFETY LIQUID removes easily and efficiently vegetable and animal oils, fats, light carbon residues, mineral oils, grease etc. from painted and unpainted surfaces, walls, floors, plastic surfaces etc.

Directions for Use

a) With immersion, spray or brush.

ARR-SAFETY LIQUID is applied by immersion, spray or mop. May be used neat or diluted with water in a proportion of 5% depending on the amount of soils.

Allow the solution to remain on the surface for a few minutes and rinse with water under pressure.

ARR-SAFETY LIQUID can be used cold or hot. For better results heat the solution up to $60 - 70^{\circ}$ C.

b) With recirculation and heating.

By using a secondary tank, heat a solution of 5-20% ARR- SAFETY LIQUID at 80-90 0 C with the heating coils and clean the surfaces, by using a pump and recirculate the material for 2 to 6 hours, then flush with water.

Features

ARR-SAFETY LIQUID is non-caustic, non flammable and non-corrosive to all metals. It is suitable for all tank-coatings. Furthermore, it prevents redeposition on the cleaned areas.

Cautions

ARR-SAFETY LIQUID is non caustic but minimum precautions should be taken when handling.

Packaging

It is available in plastic pails of 30 lt. and drums of 210 lt.

EUROCHEM S.A.



AIR - COOLER - CLEANER

Description

AIR COOLER CLEANER is a powerful solvent emulsion cleaner containing chlorinated solvents, petroleum solvents and surface active agents for in service cleaning of diesel engine air coolers, scavenge air systems and turbo chargers.

Application

AIR COOLER CLEANER is used for in service cleaning of diesel engines and scavenge trunk, hand spray cleaning whilst diesel engine is stationary, for light carbon removal from machinery parts and for uses in soak baths.

Advantages

AIR COOLER CLEANER stabilizes air cooler efficiency at maximum, can be used easily, does not require manual cleaning, saves time, leaves no residues, is safe for all metals even for aluminum, is not toxic, has no adverse odor is not flammable and non explosive.

Usage

For in service cleaning, AIR COOLER CLEANER is used diluted in water in a ratio of 1:2 and the appropriate dose of cleaner is then put in the dosing pot and injected up stream of the air cooler for a period of 10 minutes. After 10 minutes, a similar dose of fresh water is injected to rinse off the emulsified deposits.

Rate and frequency of applications depend mainly on the condition of the engines, but for initial dosage we recommend, for injection every 24 hours, the following.

Engine HP			Air Cooler Cleaner/Water Solution
6.000	to	12.000	1 lt. ACC with 2 lt. water
12.000	to	24.000	1,5 lt. ACC with 3 lt. water
24.000	to	or more	2 lt. ACC with 4 lt. water

AIR COOLER CLEANER can be used also by dipping.

Specification

Appearance : Orange/red liquid Specific gravity : 0.98 ± 0.02 Corrosive action : Metal, none

Caution

Irritating to eyes and skin. In case of contact rinse thoroughly with plenty of water.

Packaging

Non returnable 210 lt. drums and 30 lt. pails.

EUROCHEM S.A.



CARBON REMOVER

Description

CARBON REMOVER is a strong liquid product suitable for removing carbon deposits from ferrous and non ferrous metals. Also removes mineral oils, residual combustion products, grease, etc.

Usage

CARBON REMOVER is used for cleaning:

- Burner tips
- Heavy fuel heaters
- Filters for lubricants or fuel oils
- Heat exchange units in oil refineries
- Oil coolers
- Diesel engine injectors
- Machine parts :
 - pistons
 - piston rings
 - valve springs
 - connecting rods
 - carburetors etc.

Application

CARBON REMOVER is applied cold by dipping, or brush, neat. The product can also be applied by spraying, providing that all the necessary precautions should be taken (e.g. goggles, gloves, etc.).

The product can also be used diluted with petroleum distillates or water, but its efficiency will be reduced.

Allow parts to be in contact with solution for 15 minutes minimum and then rinse with water under pressure.

For tenacious carbon deposits the contact time may be longer (e.g. over night) without any effect to the metal.

<u>NOTE</u>: When CARBON REMOVER is used in tank (dipping method), it is necessary to remove periodically the soils from the bottom of the tank.

Caution

Contains phenol and methylene chloride. Avoid contact with skin and eyes. For further information refer to analytical Material Safety Data Sheet (MSDS).



DESCALER

Description

DESCALER is a liquid acid type product that effectively removes calcium carbonate and magnesium hydrate scales from heat exchangers, boilers, evaporators and other types of water systems.

It contains inhibitors and surface-active agents to protect sound metal surfaces giving more efficient reaction with the scale deposits.

When dissolved in water, its ingredients became chemically active, removing rapidly light scales and rust without appreciable action on the sound metal beneath. Through chemical reaction the scales are converted into highly soluble salts that are easily flushed away.

Generally a single treatment with DESCALER restores full system efficiency. Subsecquent treatments periodically will prevent the heavy scale incrustations and rust deposits that inevitably lead to serious impairmant of system efficiency, costly downtime and expensive repairs.

DESCALER is not recommended for use on aluminum and its alloys.

Application

DESCALER is used in a concentration 10 % in the water. The concentration varies, depending on the nature and the quantity of the scale.

Cold solutions work very satisfactorily. However, heating speed its action, with greatest efficiency obtained at 160 °F.

To strengthen solutions weakened through usage, simply add more DESCALER to restore solution to desired concentration.

Add DESCALER directly to the water in the system.

Circulate solution, hot or cold, until inspection shows system is free of scales. Depending on the condition of the system a circulation of 12-36 hours is sufficient.

When system runs clean, flush with water and neutralize residual acid with our product KEM-NUTRO or ALKALINITY CONTROL in a concentration of 1,5 % - 3 % solution.

Safety

Contains acidic ingredients. Avoid contact with eyes, skin and clothing. For further details refer to Material Safety Data Sheet (M.S.D.S.).



SCALE OFF - S

DESCRIPTION

SCALE OFF-S is a powder acid type product that effectively removes calcium carbonate and magnesium hydrate scale from heat exchangers, boilers, evaporators and other types of water systems.

It contains inhibitors and surface-active agents to protect sound metal surfaces and give more efficient reaction with the scale deposits.

When dissolved in water its ingredients become chemically active, rapidly removing light scale and rust without appreciable action on the sound metal beneath. Through chemical reaction the scale is converted into highly soluble salts that are easily flushed away.

Generally a single treatment will restore full system efficiency. Subsequent treatments periodically will prevent the heavy scale incrustations and rust deposits that inevitably lead to serious impairment of system efficiency, costly downtime and expensive repairs.

USE INSTRUCTIONS

SCALE OFF-S is used in a concentration 10% in the water. The concentration varies, depending on the nature and the quantity of the scale.

Cold solutions work very satisfactorily. However, heating does speed its action, with greatest efficiency obtained at 160 °F.

To strengthen solutions weakened through usage, simply add more SCALE OFF-S to restore solution to desired concentration.

Add SCALE OFF-S directly to the water in the system.

Circulate solution, hot or cold, until inspection shows system is free of scale. If solution requires bolstering in strength, simply add SCALE OFF-S directly to the solution.

When system runs clean, flush with water and neutralize residual acid with our product K-NUTRO or ALKALINITY CONTROL in a concentration of 1,5 - 3% solution.

CAUTIONS

Contains acidic ingredients. Avoid contact with eyes, skin, clothing.

----- ... -----



RUST REMOVER

Description

RUST REMOVER is a de-oxidizing liquid detergent containing phosphoric acid and non - ionic surfactants used for rust removal and surface brightener.

Application

RUST REMOVER is used for the removal of light rust from iron and brightening of surfaces, removing of tarnish from brass, copper aluminum, as a protective pre-treatment prior to painting, removal of flush rust from mild steel cargo lines and tanks and finally as a cleaner from rust stains from painted surfaces, glass, porcelain etc.

Advantages

RUST REMOVER leaves surfaces free of rust tarnish, provides protection on ferrous surfaces, forms a protective coating on steel surfaces, is biodegradable, non flammable and safe for painted surfaces.

Usage

RUST REMOVER can be used in full strength or diluted with water in a ratio of 1:4 to 1:6, depending on the soiled condition of the surface to be cleaned. Can be used by immersion, or spray and then rinse with water. Do not use RUST REMOVER on zinc, tin and galvanized surfaces.

Specification

Appearance : Clear liquid Specific gravity : $1,23 \pm 0,03$ Flash point : None

Corrosive action : Metals : slight action

pH (1% sol) : 2

Caution

Causes burns. Avoid contact with skin and eyes. Rinse with plenty of water and seek medical attention.

Packaging

Non-returnable 210/30 lt. containers.



LECTROKLEEN - D4 - FAST

Description

LECTROKLEEN - D4 - FAST is a non - flammable quick drying solvent, containing chlorinated hydrocarbons. LECTROKLEEN - D4 - FAST has been specifically formulated to replace 1,1,1 Trichloroethane for all cleaning operations even for VAPOR DEGREASING.

Applications

LECTROKLEEN - D4 - FAST is applied for cleaning and degreasing of electrical equipment such as motors, generators, switchgears, coils, etc. and as a general use cleaner for machine parts, equipment, motors, engines, etc. without the need of rinsing.

LECTROKLEEN - D4 - FAST is alternatively used for vapor degreasing with excellent results.

Advantages

LECTROKLEEN - D4 - FAST rapidly removes oil, grease, wax, dust, moisture, soil, etc. and has low toxicity, is not corrosive and evaporates leaving surfaces clean and dry.

High dielectric constant. (over 48.000 volts) Specific resistance: 10^9 ohm.

Use

LECTROKLEEN - D4 - FAST is used <u>neat</u>, by brush spray or swab. Allow LECTROKLEEN - D4 - FAST to completely evaporate leaving surface dry.

Specifications

Appearance: Clear colorless liquid. Flash point: Non-flammable Compatibility: Safe for all metals.

Caution

LECTROKLEEN - D4 - FAST contains chlorinated solvents. Avoid contact with skin and eyes. Do not inhale vapors. Use in ventilated areas. For further information refer to M.S.D.S.

Packaging

LECTROKLEEN - D4 - FAST is offered in non - returnable 20 lt. pails, 210 lt. drums and 450 ml. aerosol cans.

EUROCHEM S.A.



<u>LECTROKLEEN - S</u>

Description

LECTROKLEEN - S is a highly effective cleaning compound especially formulated to replace 1,1,1 Trichloroethane in all cleaning operations where a balanced evaporation rate solvent is required.

Application

Electric motors, electric equipment, panel boards, pumps, valves, machinery, starters, generators, connectors, fans and blowers, cables and wires, distributors, military aircraft, mechanical parts, motors, engines, etc.

Advantages

LECTROKLEEN - S is a product with a balanced evaporation rate and lasts at least twice as long ordinary solvent cleaners. High MAC rating and low toxicity make it an outstanding cleaner. Good cleaning and degreasing properties. Removes oil, grease, wax, dust, moisture, soil, etc. High dielectric constant (over 30.000 Volts).

Usage

LECTROKLEEN - S is used neat and may be applied by brushing dipping or non- atomizing spray. Allow LECTROKLEEN - S to completely evaporate leaving surface dry.

Specification

Appearance : colorless liquid Specific gravity : 0.98 ± 0.02 Flash point : > 160^{0} F Corrosive action : none pH : neutral

Caution

LECTROKLEEN - S contains chlorinated solvents. Avoid contact with skin and eyes. Do not inhale vapors. Use in ventilated areas. For further information refer to M.S.D.S.

Packaging

LECTROKLEEN - S is offered in non-returnable 20 lt. pails and 210 lt. drums.

Note

When a fast evaporating product is required use our product LECTROKLEEN - D4 - FAST.



KEM - DP - FOT

Description

KEM-DP-FOT is a liquid compound containing solvents, dispersants and surface active agents, combined with combustion catalysts.

Applications

KEM-DP-FOT solves effectively all pre and post - combustion problems and is ideal for steam and motor vessels burning heavy fuel oil.

Advantages

In precombustion stage KEM-DP-FOT dissolves all existing sludge, emulsifies the water, inhibits corrosion on the system and keeps atomizers tips clean.

In post combustion stage, promotes the complete combustion of carbon resulting in a direct increase in combustion efficiency, retards the oxidation of sulfur dioxide to the corrosive sulfur trioxide, reduces deposits build-up and keeps engine and exhaust components cleaner giving longer service life.

<u>Usage</u>

KEM-DP-FOT is completely oil - soluble and can be added by a metering pump or added to the settling tank increasing the dose rate about 10%. The dosage depends upon the quality of the fuel to be treated.

As a general guide, initial dosage recommendation is 1 liter of KEM-DP-FOT for 2000 liters of heavy fuel oil. Further dosages down to 1:4000 may be adequate based on operating experience and results.

Specification

Appearance : Clear brown liquid

Specific gravity: 0,86

Toxicity : Emits <u>no</u> toxic vapors or fumes.

Caution

Avoid contact with skin and eyes. In case of contact wash with a copious amount of water. Wear suitable gloves while handling.

Packaging

Non returnable 210 lt. drums and 30 lt. pails.



OIL - DISPERSER

DESCRIPTION

OIL-DISPERSER is a remarkable new product for control of floating oil, either on fresh or salt water, especially around refineries, bulk terminals and marine loading terminals.

OIL-DISPERSER is a non-toxic, non-explosive liquid product containing surfactants and a special dispersing agent.

Although principally used to disperse oil floating on the water, the product may be used for oil spills on ship decks, concrete pads, floors or bulkheads.

BENEFITS

- 1. Eliminates pollution of rivers and streams.
- 2. Eliminates fire hazard around docks and piers.
- 3. Eliminates nuisance and contamination problems.
- 4. Reduces hazard of spill where aquatic life is concerned.
- 5. Reduces clean-up time after accidental spill.
- 6. Reduces contamination due to faulty oil-water separators.

DIRECTIONS

Spray the disperser over the oil in a heavy droplet spray.

Allow to stand for a few minutes, then agitate with high pressure hose, working the stream back and forth in the oil slick. In some cases the propellers of a launch or boat will be sufficient agitation to break up the slick.

Normally the expected dosage of disperser to fuel oil is one gallon of disperser to 8 or 10 gallons of fuel oil.

APPROVALS

OIL-DISPERSER meets the requirements of the LR 448 specification as a Type 1 dispersant and is approved by :

- a) WARREN SPRING LABORATORY (ENGLAND).
- b) NATIONAL CENTER FOR MARINE RESEARCH (GREECE).



ADICO - NC - L

(Non chromate product for cooling water treatment)

DESCRIPTION

ADICO-NC-L is a liquid, nitrite/borate based compound for scale and corrosion control in closed recirculating cooling systems.

APPLICATIONS

Corrosion inhibiting treatment for closed recirculating systems such as:

Diesel Engine cooling water systems

Compressor cooling water systems

Centralized cooling systems

Central heating systems etc.

Chilled water systems

Transformer cooling systems

FEATURES AND BENEFITS

Deposits on metal surfaces and electrolytic corrosion is prevented, cooling system component life is prolonged, maintenance and repair needs are reduced.

Effective against cavitational corrosion (corrosion induced by high frequency vibration).

As sludge is controlled and existing scale is gradually reduced cooling system cleanliness and efficiency are increased.

Constant pH levels are maintained even when over-dosed. Little risk to metals such as brass and copper from excessive pH levels exists.

Dose levels are independent from cooling water dissolved oxygen levels.

Harmless to non-metals, including hoses, gaskets, seals and compatible with permanent type anti-freeze.

<u>Corrosion reduction</u>: ADICO-NC-L is a nitrite-borate compound formulated to combat corrosion by controlling cooling water alkalinity and depositing a thin stable protective film over surfaces at risk. Laboratory tests have shown surface passivation by ADICO-NC-L to be able to reduce corrosion by more than 95% per year in comparison with untreated water.

The compound is alkaline and in solution, assures control of coolant water pH levels within close limits. Optimum alkalinity suppresses acid based corrosion which may lead to general damage and local pitting.

By ensuring that, even when grossly overdosed, the cooling water pH does not rise above critical levels. ADICO-NC-L provides protection for amphoteric metals, i.e. those which are liable to attack from extremes of acidity or alkalinity.

These metals, such as zinc, are frequently present in combination with brass, copper and iron and generally are present in cooling water systems and their components. Special inhibitors in ADICO-NC-L additionally protect these metals.

./..



Their protection is important and can't be assured by the addition of simple alkaline water treatment chemicals.

<u>Scaling Control</u>: ADICO-NC-L combines and reacts with sludge, scale and rust deposits found in incorrectly treated cooling systems and will ensure their gradual removal without the risk that may be associated with acid cleaning.

Its use will clean and maintain cleanliness in all badly fouled systems.

In cases where systems are contaminated with oil and / or scale they should be cleaned before starting to apply ADICO-NC-L.

In these cases, degreasing should be performed with OIL-REMOVER-S and descaling with SCALE OFF - S.

PRODUCT DOSE AND CONTROL

Initial dose for an untreated system to inhibit corrosion is 1 % of ADICO-NC-L, that gives approximately Nitrite concentration of about 2300 ppm.

Thereafter the dose rate of ADICO-NC-L is based on the nitrite concentration of the medium under treatment and is given in the table to return cooling water to the mid point value of the control limits. The mid point value is circled.

NITRITE ppm NO ₂	0	250	500	750	1000	1250	1500	2000	3000
4000									
ADICO-NC-L KG/1000lt.	10	9	7	5	3	1	0	0	0
0									

In cases of poor quality water, increased dosages may be necessary.

Buffering agents in ADICO-NC-L maintain pH values within suitable limits when the product is dosed as recommended.

Cooling water pH can also be checked and should be kept between 8,5-10.

PRODUCT CHARACTERISTICS

Appearance : Liquid.

Specific Gravity : $1,32 \pm 0,05$ PH (neat) : < 10

Corrosive action : None

Nitrite Concentration (NO_2^-) : >22 %

Borate Concentration (BO₃=) :>2%

PACKAGING

Non returnable 25 liter plastic pails and drums of 250 kg.

The testing equipment to measure cooling water quality and control treatment with ADICO-NC-L is available from EUROCHEM S.A.



KEM-FOS-L

Description

KEM-FOS-L is a liquid compound containing alkaline mineral salts, sequestering agents and inorganic corrosion inhibitors which provide scale and corrosion inhibition for low pressure boilers.

Application

KEM-FOS-L is suitable for all auxiliary boilers, waste heat units, low-pressure water tube boilers, smoke and water tube boilers, steam/steam generators etc.

Advantages

KEM-FOS-L is a complete boiler water conditioner, inhibits corrosion due to traces of free oxygen in feed water, dissolved hardness salts of Ca and Mg contained in feed water, converts potential hard scale - forming salts to inert, non adhering soft sludge particles which are kept in suspension. The balanced alkalinity supplied by KEM-FOS-L assures the correct environment for the precipitation of hardness salts, the proper conditions to maintain silica in solution the appropriate amount of alkalinity to prevent corrosion.

Usage

For an untreated system an initial dose of 2,5 liters of KEM-FOS-L per 1000 liters of untreated water is recommended. Thereafter the dosage rate of KEM-FOS-L is based on "P" alkalinity measured in ppm of CaCO₃.

The following chart indicates the appropriate amount of KEM-FOS-L to be added (the mid point value is circled).

"P"Alkalinity ppm CaCO ₃	0	50	100	150	200	225	250	300	350	400
KEM-FOS-L L/1000 L	2.5	1.9	1.3	0.7	0.2	0	0	0	0	BLD

KEM-FOS-L is best fed continuously to the boiler feed water by means of a metering pump.

The recommended control limits are:

- p-Alkalinity: 200-300 ppm CaCO₃.
- Chlorides: 200 ppm Cl max.
- Condensate: pH 8.3-9.0.

Blowdown (BLD) and scumming operations must proceed at regular intervals to remove sludge/sediment particles. Excessive chlorides are removed by blowdown.

Packaging

Non-returnable 30 liter plastic containers.

The testing equipment to measure boiler water quality and control treatment with KEM-FOS-L is available from EUROCHEM S.A.

EUROCHEM S.A.



EUROCLEAN

Marine Application ENVIRONMENTALLY FRIENDLY HEAVY DUTY - WATER BASED CLEANER - DEGREASER

Description:

A multi purpose, water based, environmentally friendly, biodegradable, cleaner degreaser. Suitable for use on all metals and coatings. Non toxic, non flammable and safe to use. Compatible with oil/water separators. Very economical.

Application:

EUROCLEAN can be used for many different purposes in different rates of dilution. It has many general cleaning and degreasing applications such as grease removal, oil, sludge, carbon deposits, general dirt, vegetable and animal oils. Also can be used as deck, engine room cleaner. After its use it de-emulsifies in the bilges or sloptanks. Suitable for use with oil/water separators.

Directions for use:

EUROCLEAN as a general cleaner – degreaser can be used neat or diluted from 1-15 parts of water according to the type and amount of soil. After the use bilge slops must be allowed to separate for at least 3 hours before being treated in oil water separator.

EUROCLEAN as cargo tank cleaner:

With tank washing machines the dosage rate is between 0.5 - 1%.

By recirculation method a solution of between 3 - 4% should clean up to 3 - 4 tanks depending on the contamination.

Spot cleaning **EUROCLEAN** can be used by hand spraying neat or diluted from 1-5 parts water. Use the solution onto surface for cleaning up to 20-30 minutes. For best cleaning results use heated water between $40\,^{0}\text{C}$ - $50\,^{0}\text{C}$.

Caution:

Avoid contact with eyes and prolonged contact with skin.



EUROSPERSE

(Anti-fouling treatment for seawater systems)

Description:

EUROSPERSE is an amine based dispersant, very effective biocide and biodispersant used for keeping seawater systems free from marine fouling.

When the system is free of bacteria and fungi or barnacles and mussels the ability to transfer heat is at the maximum. By keeping the system clean EUROSPERSE reduces maintenance and operating costs.

EUROSPERSE has been specially developed to prevent fouling in seawater cooling systems from marine growths. The dispersant in EUROSPERSE prevents colonizing of bacteria on the metal surface, making it unsuitable for the settling of bacteria and therefore unlikely for larger fouling organisms. Anticorrosion properties are also provided by filming characteristics.

Advantages:

- Easy to use liquid form.
- Filming properties protect system from corrosion.
- Extremely effective in the control of seawater fouling organisms.
- One product for multiple applications.
- Maintains heat transfer and extends the periods between cleaning.
- Maintenance and down time is reduced.
- Cost effective.
- Biodegradable.
- Suitable for all types of systems using seawater both static and flowing.

Application:

PRE-CLEANING

If the cooling system is moderately fouled, EUROSPERSE will disperse marine growth.

If the cooling system is heavily fouled it is recommended that the cooling water system be cleaned prior to beginning an EUROSPERSE fouling prevention program.

Offline cleaning may be accomplished by circulating a 10% solution of our product SCALE-OFF-S.

Dosage:

EUROSPERSE is dosed at 6 ppm for 60 minutes every other day in coastal waters and at least once mid-voyage on deep sea crossings, but at least every seven (7) days.

Packaging:

EUROSPERSE is offered in 210-liter drums.



EUROCHEM A.B.E.E. Ραφαηλίδου 4, 17778, Ταύροs, Αθήνα, Τηλ.: 210 48 36 321-7, Fax:210 48 36 332 e-mail:eur98@otenet.gr , www.eurochemgr.com

EUROCHEM S.A 4 Rafailidou str., 177 78

Tavros, Athens - Greece, Tel.: +30 210 48 36 321 - 7, Fax:210 48 36 332

e-mail:eur98@otenet.gr , www.eurochemgr.com