

eurochem[®]

aviation, marine and industrial chemicals





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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 & 14001**

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.eurochemgr.com>

Certificate Of Assessment International Quality Certification

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

CEO



on behalf of IQC

This Certificate Number	GR/035/2018-1
ISSUED ON	23/11/2018
IS VALID UNTIL	22/11/2021



Certificate Of Assessment International Quality Certification

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

CEO



on behalf of IQC

This Certificate Number **GR/035/2018-3**
ISSUED ON **23/11/2018**
IS VALID UNTIL **22/11/2021**



Certificate Of Assessment International Quality Certification

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

CEO



on behalf of IQC

This Certificate Number	GR/035/2018-9
ISSUED ON	29/5/2020
IS VALID UNTIL	28/5/2021



Certificate Of Assessment International Quality Certification

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

CEO



on behalf of IQC

This Certificate Number **GR/035/2018-6**
ISSUED ON **23/11/2018**
IS VALID UNTIL **22/11/2021**



EUROCHEM S.A. is a leading manufacturer of high quality industrial chemicals. Through our continuous research and development of new products we are able to offer an extensive range of advanced technology industrial chemicals for improvement of problems associated with industrial 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
- Paint removers
- Antifoams
- Cutting Oils
- Anti-freezing products
- Thinners

WATER TREATMENT CHEMICALS

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

SANITATION PRODUCTS

PHOSPHATE COATINGS

METAL SURFACE TREATMENT

FUEL OIL ADDITIVES

SPECIAL CLEANERS FOR:

- Dairies
- Food industries
- Breweries
- Paper & Pulp industries
- Oil Field & Petrochemicals Plants
- Refineries





INDICATIVE PRODUCT GUIDE
FOR INDUSTRY

PRODUCT	DESCRIPTION
	<u>1. C L E A N E R S</u>
	<u>A. SOLVENT BASED DEGREASERS</u>
OIL REMOVER	Heavy duty, liquid solvent emulsion cleaner, for the removal of oil and grease.
OIL REMOVER –S	Liquid product as the above but stronger.
EC – 2011	Liquid product as the above but a little viscous. Suitable for vertical surfaces and can be diluted with water.
LECTROKLEEN – 7	Solvent cleaner for spare parts and equipment. No rinsing required.
	<u>B. WATER BASED CLEANER – DEGREASER</u>
ARR – LIQUID	Heavy-duty general use alkaline cleaner suitable for cleaning vegetable and animal oils and fats.
KLEENOL – 2000	Alkaline product as the above but viscous. Suitable for vertical surfaces.
ARR – SAFETY LIQUID	Non-caustic general use cleaning liquid, suitable for cleaning vegetable and animal oils and fats.
EUROCLEAN	Multi-purpose cleaner – degreaser, compatible with water. Friendly to the environment. Suitable for use on most common metals and coatings.
	<u>C. CARBON REMOVERS</u>
CARBON REMOVER	Decarbonizer. Removes heavy carbon residues, grease, oil, engine varnishes, sticky gums etc.
S – 2055	Liquid product as the above but stronger.
	<u>D. DESCALERS – RUST REMOVERS</u>
DESCALER	Acidic liquid product suitable for the removal of heavy oxides and water scales from boilers. Not safe on aluminum and its alloys.
SCALE – OFF – LS – 30	Acidic liquid product as the above but safe on aluminum and its alloys.
SCALE – OFF – S	Powder for water scale removal, safe to all metals.
RUST REMOVER	Rust and metal tarnish removal liquid.
ATAROL	Liquid product for the removal of rust. Forms a protective phosphate coating on ferrous surfaces.
ATAROL THICK	Liquid product same as the above but viscous. Suitable for vertical surfaces.

***Our industry catalogue is only indicative and does not even begin to cover our wide range of products.**



PRODUCT	DESCRIPTION
	<u>E. ELECTROCLEANERS</u>
	<u>a.) Electrocleaners and electronic parts cleaners</u>
LECTROKLEEN – Q (super fast)	Safe, non-flammable, quick evaporating cleaning solvent. Ideal for the in place cleaning of electrical motors and equipment. Requires no wiping and leaves no residue.
LECTROKLEEN – D4 FAST	Cleaner for electric motors. Non-flammable quick evaporating with dielectric strength over 20.000 volts.
LECTROKLEEN –S (medium evaporation)	Liquid as the above. Works harder has a high flash point lower evaporation rate and is ideal for use in warm climates.
LECTRO CONTACT CLEANER 2003	Quick evaporating cleaner. Suitable for electronic components, circuit boards, VIDEO, TV etc.
LECTRO CONTACT CLEANER 203	Liquid as the above but slow evaporating.
	<u>B)Odorless electrocleaners safe to personnel and environmentally friendly</u>
N.I.G.	Odorless, non-flammable, non-toxic, very fast evaporating electrical motors and equipment cleaner.
LECTROKLEEN ODORLESS	Completely odorless, non-toxic, slow evaporating electric motors and parts cleaner with high flash point.
N.I.G. – 40	A combination of N.I.G. and LECTROKLEEN ODORLESS controlled evaporation (not too fast and not too slow) which has all the advantages of N.I.G. and LECTROKLEEN ODORLESS.
	* NOTE: All of the above products are new technology electric motor and equipment cleaners which are environmentally friendly and non-toxic to personnel.
	<u>F. STAINLESS STEEL TREATMENT</u>
PICKLING FLUID	Pickling fluid for stainless steel tanks and pipelines.
PASSIVATING FLUID	Passivation fluid after pickling treatment.
	<u>G. AIR CONDITIONER CLEANERS</u>
AIR – CB – 1	Acidic cleaner for AIR CONDITIONERS for exterior parts of air conditioners and condensers.
AIR – CB – 3	Alkaline cleaner for AIR CONDITIONERS for interior parts, pipes, filters, etc.



PRODUCT	DESCRIPTION
	<u>2. METAL SURFACE TREATMENT AND CHEMICALS FOR METAL WORKING INDUSTRY</u>
	<u>A. DEGREASERS – DE-RUSTERS</u>
KEM – 2B	Hot tank alkaline cleaner for ferrous metals.
PH – CLEANER	Non-caustic hot tank aluminum cleaner.
RANTOL – 20/20	Cold tank, heavy-duty aluminum cleaner – brightener and deoxidizer.
SCALE – OFF	Acidic liquid product for the removal of rust.
ATAROL	Liquid product for the removal of rust. Forms a protective phosphate coating on ferrous surfaces.
HIBIT – 28	An effective inhibitor for hydrochloric acid.
KEM – BRASS – A	Cold immersion brightener – deoxidizer for brass, bronze, copper and its alloys.
	<u>B. PHOSPHATE AND PROTECTIVE COATINGS</u>
PHOSPHAT – F	Cleaning and phosphating of steel and zinc alloys. A superior cleaner produces an iron phosphate coating for paint adhesion. Inhibits re-rusting before painting.
PHOSPHAT – SUPER	Low temperature iron phosphate and cleaner used by dipping.
PHOSPHAT – SUPER SPRAY	Same product as the above. Applied by spray.
SUPER – KLEEN	Liquid product for de – rusting, cleaning and phosphating in one step.
PHOSPHAT – Z	Microcrystalline zinc phosphating of steel or zinc alloys. Smooth coating reduces paint cost. Provides paint bond and corrosion protection.
PHOSPHAT – M	Heavy manganese anti – friction coating and foundation for oil and paint. Substantial manganese coating for moving parts; base for rust proofing.
PHOSPHAT – SOLVE	Iron phosphate coating solvent based no need for rinsing.
KEM – BLACK	Decorative, rust resistant, black finish. (black oxide)
ADICO – L	A water-based mild alkaline liquid used for the temporary protection of the metals and gives a passivating film which protects the surfaces against corrosion.
ADICORROSIVE 225–N	Same product as the above but organic type.
HIB	Inhibitive seal rinse aid for phosphate coatings.



PRODUCT	DESCRIPTION
	<u>C. PAINT REMOVERS</u>
K – 2015 – L	Liquid tank type paint remover for difficult finishes such as epoxy, polyurethane and powder coatings.
K – 2025	Thickened paint stripper which effectively strips paint including epoxy, polyurethane and similar organic coatings.
S – 2055	A liquid tank type carbon and paint remover that removes carbon and paint from ferrous and non-ferrous parts safely and effectively.
	<u>3. FUEL OIL TREATMENT & WATER TREATMENT</u>
	<u>A. FUEL OIL TREATMENT & POUR POINT DEPRESSANTS</u>
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.
ANTIFROZEN DP –FOT	Liquid product as KEM-DP-FOT. Containing in addition flow improvers and pour point depressants.
KEM – DOT	Fuel oil treatment for diesel oil.
ANTIFROZEN OIL – 25	Pour point depressant.
	<u>B. BOILER WATER TREATMENT</u>
KEM – FOS – L	Liquid product boiler water conditioner for low-pressure boilers. Controls water hardness and adjusts the alkalinity. For high-pressure boilers there is a complete product line. Request analytical brochures.
	<u>C. EVAPORATOR TREATMENT & COOLING WATER TREATMENT</u>
KEM – ET - A	Liquid product for controlling scale in evaporators and multi flash evaporators.
DISPERSOL – 2054	Liquid product for controlling scale in reverse osmosis installations.
DISPERSOL – 2000 – A	Liquid product that prevents scale and corrosion in open re-circulating cooling systems and cooling towers.
DISPERSOL – 2000 – 10	Liquid product for scale control in washing machines.
ADICO – NC – L	Liquid product for scale and corrosion control in closed cooling water systems, without chromates.
WSC – 8170 DP	New technology product scale and corrosion inhibitor for closed cooling water systems based on molybdates and phosphates. Environmentally friendly.

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PRODUCT	DESCRIPTION
	<u>4. MISCELLANEOUS</u>
	<u>A. ANTIFOAMS</u>
AF – II	A liquid anti-foam highly recommended for the prevention, control or elimination of foam in aqueous systems. General use, Oil and Petrochemicals, Agrochemicals, textile industries, home care products, detergents etc.
AF – 24	Powder form, anti-foam used mainly in powder detergents.
	<u>B. CLEANERS - DISINFECTANTS</u>
K – 151	A general-purpose liquid cleaner for engine deck, superstructure and accommodation.
EUROCLEAN	A multi-purpose, water based, environmentally friendly, cleaner degreaser suitable for use on most common metals and coatings.
BELCAN – C	Liquid cleaner – disinfectant for general use.
BELCAN	Concentrated disinfectant – deodorizer.
	<u>C. CUTTING OILS</u>
LUBRICOOOL N° 4	(Cutting oil) Synthetic coolant for machining and cutting operations.
LUBRICOOOL N° 12	(Cutting oil) Emulsifiable oil based coolant for machining and cutting operations.
	<u>D. ANTI – FREEZING PRODUCTS</u>
ANTIFROZEN 2000	A liquid product for cooling water systems, where a low freezing point is required. Normally used neat and does not freeze at temperatures up to –12°C.
ANTIFROZEN SUPER	Liquid product as the above but concentrated. Use diluted with water according to desired pour point.
	<u>E. THINNERS</u>
SOLVENT – 10	Thinner for paints, general use. (We offer a wide range of thinners for different types of paint.)



PRODUCT	DESCRIPTION
	<u>5. O T H E R</u>
HAND SOFT	Liquid hand cleaner.
KEM – TC	Powder. Unclogs kitchen and bathroom sinks/drains from grease, oil etc.
BIOSIDE	A very effective liquid anti – fouling corrosion inhibitor. Does not permit marine growths such as algae, shellfish and micro-organisms.
PROTECTIVE OIL	An oily liquid containing rust inhibitors which forms a thin layer on the surfaces protecting them against humidity and corrosion.
WATER DISPLACER	Water, moisture and humidity displacer leaving 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.
IS – 2006 HARD (hard film)	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.
IS – 2006 SOFT (soft film)	Same product as above but soft film.
	<u>6. SPECIAL CLEANERS FOR INDUSTRIES</u>
	<u>DAIRY INDUSTRIES</u>
MILK SCALE REMOVER	A weak acidic liquid product, suitable for food industries especially dairy. Used mainly for the removal of milk scale and also for casein fats and in general protein deposits that are formed on the tank walls and pipes.
PLEDIN – 5010	Odorless product for the cleaning of floors, machines etc.
	<u>PAPER INDUSTRIES</u>
KEM – 041	Liquid for cleaning of felts, cylinders, screens, rolls and equipment.
KEM – 031	Liquid product as the above but stronger.
AF -	Complete line of antifoams for paper industries.
	<u>BREWERIES</u>
KEM – BC	Powder for bottle washing.
AD -	Complete line of additives for caustic baths used in bottle washing operations.
AF – II	Antifoam. Used in caustic baths in bottle washing operations.
DISPERSOL – 2006	Scale control additive on the rinse section.
CHAIN LUBRICANT	Conveyor chain lubricant in bottle washing operations.
	<u>OIL FIELD & PETROCHEMICAL PLANTS</u>
	Complete product line for oil field and petrochemical plants such as corrosion inhibitors (for both gas and oil), water treatment chemicals, etc.



7. PROCESS APPLICATION CHEMICALS

EUROCHEM GROUP supplies and distributes full product lines of process chemicals to cover almost all of the industrial process.

Some examples of such product lines are:

OILFIELD REFINERIES & PETROCHEMICALS

Scale control agents

Corrosion inhibitors

Oil based filmers
Water based filmers
Neutralizers

Water side treatment chemicals

Scale control agents
Antifoulants
Corrosion inhibitors
Water side biocides

Antifoulants

Process biocides

Oil and spill control agents

Energy chemicals

Boiler water treatment
Cooling water treatment
Steam and return lines
corrosion control

Antifoams

PULP & PAPER INDUSTRY

Wet end chemicals

Drainage aids
Retention aids
Wet strength improvers
Alkaline and acid filters
Specialty resins and
coatings

Energy chemicals

Boiler water treatment
Steam and return lines
corrosion control
Cooling water treatment

Paper production water treatment

Antislime
Mould control agents
Scale inhibitors
Pitch controllers
Disinfectants

Antifoams

FOOD INDUSTRY

(Sugar mills, Breweries, Milk Industries)

Flow modifiers
Antioxidants
Energy chemicals
Boiler water treatment
Steam and return lines corrosion control

Disinfectants
Waste water treatment
Antifoams
Cooling water treatment

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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.

2004 – STARTER

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.

2006 – IS

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.

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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 sub-micron 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.

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2017 – GRAFFITI REMOVER

-3-

Removes graffiti from surfaces.

2018 – FREEZING LIQUID

Freezing liquid – non flammable.

**2019 –
AIR CONDITIONER CLEANER**

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.

AQUA CHECK

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.

DRAIN CLEANER

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.

RUST CONVERTER

Thin, liquid metal treatment compound which, when applied to rusted metal, chemically changes the rust (iron oxide) into iron phosphate. 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.

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**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	

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

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

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

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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.

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

Spraying: 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.

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

Specification

Appearance : Colorless liquid
Specific gravity : $0,83 \pm 0,01$
Corrosive action : Metal, none
Paint, none
Rubber, slight swelling.

Caution

OIL-REMOVER-SUPER is no toxic and 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.

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EUROCLEAN

Industrial Use

WATER DILUTABLE, CLEANER – DEGREASER USED FOR CLEANING PAINTED AND UNPAINTED SURFACES.

Description

EUROCLEAN is a multi-purpose, water based cleaner with surfactants for fast effective cleaning. Does not contain chlorinated solvents.

EUROCLEAN is ideal for removing mineral oils and grease from machinery parts, diesel engine exteriors, compressor exteriors, tank tops, bulkheads, decks, bunker tanks etc. Also it is suitable for engine room decks and spot cleaning/degreasing of oil tanks. Effectively removes jet exhaust carbon and hydraulic fluids from aircraft exterior surfaces. Loosens and breaks up deposits, leaving surfaces oil and grease free, has a strong emulsifying action and it is easy to use. EUROCLEAN can be used as an all purpose degreaser. EUROCLEAN is a multi-purpose cleaner that can be used for any cleaning operation such as steam cleaning, emulsion cleaning, immersion cleaning, ultrasonic cleaning, wipe on cleaning etc. in MARINE, AVIATION, TRANSPORTATION & INDUSTRY.

Advantages

Excellent solvency for grease and soil.

Safe on all metals including high strength steel, cadmium plated steel, mild steel, magnesium, aluminum, titanium, acrylic plastics, paints etc.

Safe on polyamide electrical insulation.

Contains no phenolics or heavy metal salts.

Surfactants biodegradable.

Usage

EUROCLEAN is used diluted with water in varying concentrations by soaking, spraying, brushing or mopping. The dilution depends on the heaviness of the soil from neat or diluted up to 50 parts of water.

Allow time for EUROCLEAN to act and then rinse off with water under pressure.

A. For heavy cleaning

Use one part EUROCLEAN with 1-3 parts of water.

B. For Degreasing

Use one part EUROCLEAN with 4 – 8 parts of water.

C. For steam cleaning

Use one part EUROCLEAN with 40 – 50 parts of water.

Dilution will vary as per severity of application.

Caution

Avoid contact with skin and eyes. (See M.S.D.S.)

Packaging

EUROCLEAN is available in non-returnable 210 lt drums and 30 lt pails.

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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. overnight) without any effect to the metal.

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

Safety

Avoid contact with skin and eyes. In case of contact rinse with plenty of water. It is recommended to take the minimum appropriate precautions during handling.

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S - 2055 **(CARBON AND PAINT REMOVER)**

Description

S-2055 is a two layers phenolic type, liquid product, which meets the requirements of MIL-C-19853 Type I, class 2 as a carbon remover and MIL-R-83936 A Type I, class II, and Type II, class II as a paint remover.

Also meets the requirements of BOEING DOCUMENT D6-17487.

Application

S-2055 is applied for removing paint coatings from the landing gear wheels of aircrafts and for removing carbon deposits, oils, greasers etc. from the components of reciprocating and "jet" engines of the aircrafts.

It is safe on aluminum, ferrous, magnesium etc. Doesn't attack the anodize coatings.

Usage

S-2055 is used cold and only by immersion.

The parts to be cleaned must be totally immersed in the lower layer and should be positioned in baskets so that minimum drag-out occurs.

Paints and lacquers are usually softened in about 30 - 45 minutes and sludge of carbon/burnt oil will require a soak of about 1 - 3 hours. Hard carbon and very resistant types of paint may necessitate an overnight soak to affect removal. The paint and carbon can be removed after softening has taken place by high pressure water rinsing.

Product properties

Appearance : Two - layers liquid.

pH (lower layer) : >10

Corrosiveness : Doesn't corrode metals.
May swell rubbers.

General information

Mild steel or stainless steel tanks are suitable for operating baths.

The upper layer is an aqueous solution which contains catalysts and corrosion inhibitors. Prevents also the evaporation of the lower layer.

In time to time an addition of water is necessary in order to minimize the drag-out of the upper layer.

Safety

Contains phenols and chlorinated hydrocarbons. Avoid contact with skin and eyes. Wear protective clothes when handling.

Packaging

It is available in 55 gallons drums.



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.

DESCALER can be also used as cement remover with excellent results.

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 become 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. 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.

DESCALER is not recommended for use in 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 speeds 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.



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 with restores 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.

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ATAROL

Description

ATAROL is a de-oxidizing liquid acid product which contains solvents, non-ionic surfactants and anticorrosive agents, used for rust removal and surface brightener.

Application

ATAROL is used for the removing 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

ATAROL 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

ATAROL 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, spray or and then rinse with water. Do not use ATAROL on zinc, tin and galvanized surfaces.

Specification

Appearance	: Clear Green Liquid
Specific gravity	: $1,25 \pm 0,05$
Flash point	: None
pH (10 % sol)	: < 2

Caution

Acidic material. Avoid contact with skin and especially with eyes.

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, mechanical equipment, switchgears, coils and machine parts without the need of rinsing.

Advantages

LECTROKLEEN - D4 - FAST dissolves rapidly oil and grease, has low toxicity in comparison with tetrachloride, is non 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 neat, by brush spray or swab.

Allow LECTROKLEEN - D4 - FAST to completely evaporate leaving surface dry.

Alternative use : VAPOR DEGREASING.

Specifications

Appearance : Clear colorless liquid.

Flash point : Non flammable

Compatibility : Safe for all metals.

May swell rubber

Caution

Avoid inhalation of vapors. Use always in well ventilated areas. Gloves safety goggles and protective clothing should be worn.

Packaging

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

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LECTROKLEEN – S

Description

LECTROKLEEN - S is a highly effective cleaning compound especially formulated to replace carbon tetrachloride in all cleaning operations.

Application

Electric motors, switches, contacts, panel boards, electronic equipment, pumps, valves, machinery, starters, generators, connectors, fans and blowers, cables and wires, distributors, military aircraft, typewriters, printing etc.

Advantages

LECTROKLEEN - S is a product with balanced evaporation rate and lasts at least twice as long ordinary solvent cleaners. High MAC rating and lower toxicity when compared to gasoline or carbon tetrachloride. Good cleaning and degreasing properties. Removes oil, grease, wax and soils. High dielectric constant (over 30.000 Volts).

Usage

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

Specification

Appearance : colorless liquid
Specific gravity : $0,98 \pm 0,02$
Flash point : $> 160^{\circ}\text{F}$
Corrosive action : none
pH : neutral

Caution

Contains chlorinated solvent. Avoid prolonged contact with skin. Use in ventilated area.

Packaging

Spray cans of 450 ml. 30 lt pails 210 lt Drums.



CLEANING AND PASSIVATION OF STAINLESS STEEL

A standard and essential practice in order to prevent corrosion on stainless steel surfaces is to clean and passivate these surfaces prior to commissioning. This kind of treatment is done on cargo tanks, storage tanks, piping systems etc.

This work is carried out in accordance with the ASTM A 380 procedure.

The general procedure to be followed consists of the below described steps :

- precleaning, degreasing, pickling, passivating, disinfecting.

Precleaning

It is performed in order to remove all solid matter and to prevent damages to pumps and cleaning equipment.

Degreasing

With this step all oil, grease and dirt are removed.

A solution of our product ARR-SAFETY LIQUID (non caustic alkaline cleaner) will give you the best results.

Pickling

In this step using our product PICKLING FLUID neat, will remove all scales and oxide residues.

The time for pickling may vary 1-4 hrs and depends on the discoloration of stainless steels, the welding seams and the temperature of the solution. The recommended solution temperature is approximately 20 °C for efficient pickling. Drain the system and rinse thoroughly with water. After rinsing, if required passivation should follow immediately.

Passivating

In this step a new oxide layer forms by using our product PASSIVATING FLUID neat.

Drain the system and rinse thoroughly, preferably with demineralised water.

Our company offers also the method and the reagents required in order to test out and confirm the well done of the passivation on the stainless steel surfaces.

Disinfecting

This step is required only if food is to be stored or transported in the tanks concerned.

Our product BELCAN gives the appropriate disinfection.

Cautions: Both pickling and passivating fluid are strong acidic products. Avoid contact with skin, eyes and clothing.

Use in ventilated areas.

Hazardous Indications : R : 26/27/28 R : 34/35.

Wear suitable protective clothing and gloves. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. In case of an accident or if you feel unwell seek medical advice and show the label or this sheet to the doctor.



CHROMATE CONVERSION COATING (ALLODINE) **ON ALUMINUM AND ALUMINUM ALLOYS**

The procedure of chromate conversion coating (Alodine) on aluminum and aluminum alloys, using our product KEMCOT, gives on the surfaces an insoluble coating of aluminum and chromium hydroxides.

Chromate coatings vary from clear and iridescent to light yellow or brown, depending on the composition of the aluminum – base material, the immersion time and the solution age. This coating is ideal for the anticorrosive protection of aluminum, increasing at the same time the paint adhesion.

The chromate conversion can be applied by spraying or immersion and meets the requirements of MIL – C – 5541 and MIL – C – 81706. The chromate conversion can be performed in 5 or 8 stages.

Method of 5 stages

1st stage : Degreasing – deoxidizing

Product	: RANTOL
Concentration	: 5 – 6 %
Temperature	: Room temperature
Immersion time	: 3 – 5 min

2nd stage : Rinsing

Clean overflowing cool water. Two water rinses are recommended for better results.

3rd stage : Chromate conversion

Product	: Kemcot
Concentration	: 0,5 – 1 %
Temperature	: Room temperature
Immersion time	: 30 sec – 5 min depending on the composition of aluminum and the solution age.

The operation pH is to be kept within the range 1,5 – 2,1 by additions of nitric acid or ammonium hydroxide.



4th stage : Rinsing

Clean overflowing cool water.

5th stage : Rinsing with deionized water

Clean overflowing deionized water. Then followed by drying.

General information

Our products RANTOL and KEMCOT are caustics and are not recommended to come into contact with skin and eyes. The tanks containing the solutions of RANTOL, KEMCOT and their rinsing must be constructed from stainless steel or must be lined with polyester. All rinsing tanks must overflow and the incoming quantity of water must be equal to the outgoing quantity of water.



IRON PHOSPHATE COATING

DESCRIPTION

This specification establishes the materials and procedure for the formation of an insoluble mildly protective iron phosphate coating on ferrous surfaces, having an iridescent blue to bluish brown color. This process will produce coatings in accordance with TT-C-490 TYPE II American specification. The thickness of the coating is over 35 mgr/ft²

APPLICATION

Iron phosphate coatings are applied to steel surfaces in order to protect them from corrosion but mainly are applied as a base for better paint adhesion (wet or electrostatic). Iron phosphate coatings can be applied by immersion or by spray in 2 or 3 stages.

1st stage : Degreasing - phosphatizing

Product : PHOSPHAT - F
Concentration : 5 - 6 % by immersion
 2 - 4 % by spray.
Temperature : 50 - 60 °C.
Contact time : 5 - 7 min by immersion
 1 - 2 min by spray.

2nd stage : Rinsing

Clean overflowing cool water for 1-2 minutes. Dump & refill daily.

3rd stage : Passivation

If the water of the rinsing stage is hard it is preferable to use deionized water or perform the passivation stage which increase the anti-corrosion protection of the metal.

Product : HIB
Concentration : 2 o/oo by immersion or spray.
Temperature : 50 - 60 oC.
Contact time : 30 sec.

In some cases the second or the third step may be omitted.

GENERAL INFORMATION

The tanks or the spray equipment could be made from stainless or mild steel. Depending on the production the PHOSPHAT - F solution must be changed every month. The solution of the passivation stage must changed every 2 - 4 days. If the second step is omitted the HIB solution should be changed daily.

CAUTION/SAFETY

It contains acidic constituents. Avoid contact with skin, eyes etc.



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.

Usage

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 no 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.

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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 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 CaCO_3 .

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	3	2,5	2,0	1,2	0,4	0	0	0	0	BLD

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

Blowdown (BLD) and scumming operations must proceed at regular intervals to remove sludge /sediment particles.

Caution

Do not ingest or inhale. Avoid contact with skin and eyes. In case of contact with skin and eyes wash immediately with copious amount of water and seek medical aid.

Packaging

Non returnable 30 liters plastic containers.



DISPERSOL-2000-A

Description

Dispersol-2000-A is a variation of our product Dispersol 2000 with the main difference being that it contains zinc and it is more acidic. Because of that (more acidic) the consumption of sulfuric acid in the cooling towers is reduced.

It is a special liquid compound which contains dispersants, sequestrants, scale inhibitors and anti-corrosive agents (zinc).

The product is a combination of phosphonates which are antiscaling agents and zinc which is an anticorrosive agent.

Does not contain chromates and nitrites.

Usage

It is used in order to prevent scale and corrosion in open re-circulating cooling systems and cooling towers.

The usage of DISPERSOL-2000-A if combined with the biocide action of our product BELCAN is a complete treatment of cooling water.

Application

DISPERSOL-2000-A is used in a continuous dosage of 20-80 grams per 1000 kg of water. The above proportion depends on the operating conditions of the system as temperature, hardness of water, chlorides content, TDS etc.

It is suggested to achieve the best results of DISPERSOL-2000-A the pH of water should be maintained between 6.5 - 8.3.

Advantages

a.) It is economic in its use because it is low in concentration.

b.) Because of its nature (acidic product) the consumption of sulfuric acid is reduced.

Technical properties

Appearance	: Clear liquid.
pH	: < 1.5
Specific gravity	: 1.16 ± 0.05
Solubility	: It is soluble in water of all proportions.

Safety

Contains acidic ingredients. Avoid contact with skin and eyes. Refer to M.S.D.S for necessary precautions for proper handling of this material.

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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 cavitation 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.

Corrosion reduction: 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.

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

Scaling Control: 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 ± 0,05
PH (neat)	: < 10° C
Corrosive action	: None
Nitrite Concentration (NO ₂ ⁻)	: >22 %
Borate Concentration (BO ₃ ⁼)	: >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.



eurochem®

aviation, marine and industrial chemicals

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