# 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 & 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.

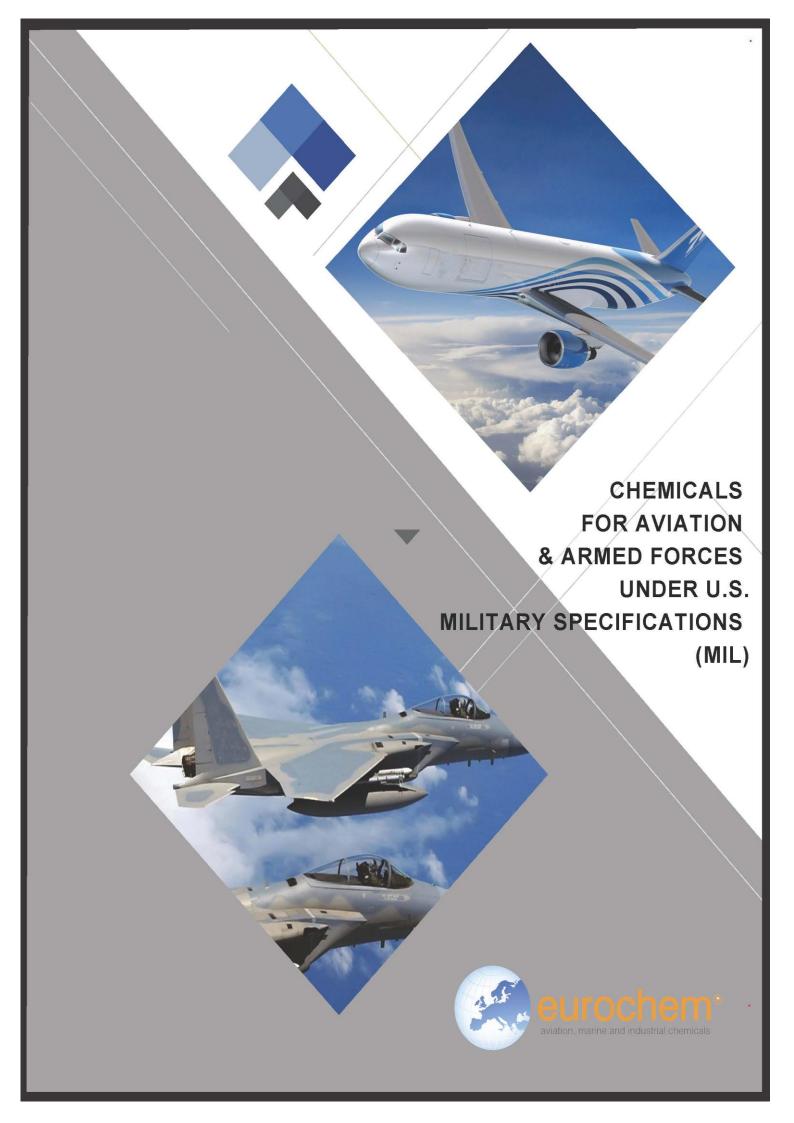
Eurochem's activities are expanded all over the world, supplying Shipping, Aviation and Industry Companies with its variety of products.

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»





	• K-KLEEN-37	MIL-PRF-87937 TYPE IV	Exterior aircraft surface cleaner
	• K-KLEEN-937	MIL-PRF-87937 TYPE I	Heavy duty exterior aircraft surface cleaner, terpene based (D-Limonene)
INTERIOR & EXTERIOR	• KLEENOL 2000 PRO	MIL-PRF-85570	Heavy duty exterior aircraft surface cleaner
AIRCRAFT SURFACE	• EC-201	MIL-C-43616	Heavy duty solvent based emulsion cleaner for exterior aircraft surfaces.
CLEANERS	• KEM-KLEEN-68	AMS-1550	Interior cleaner.
	• DEODORANT CONCENTRATED	D6-17487	Deodorant concentrated aircraft toilet disinfectant / deodorizer.
	K- 2015 AP     (acid activated phenolic)	MIL-R-81903A ) Type II, Class 1	Viscous highly effective for polyurethane epoxy paints & other difficult coatings.
PAINT	K- 2015 NP (acid activated non phenomenal)	MIL-R-81903A Dlic) Type III, Class 2	Viscous paint stripper for aircraft exterior application.
REMOVERS VISCOUS	• PR – 2025 (neutral phenolic)	MIL-R-81294 Type I, II, III & IV Class 1	Viscous neutral paint stripper, for aircraft exterior application.
	• PR – 2094 (ammonia activated	MIL-R-81294 D Type I, II, III & IV Class 2	Non phenolic viscous, ammonia activated paint stripper, for aircraft exterior application.
	non phenolic)		
TANK-TYPE	• S - 2055 (phenolic)	MIL-R-83936-A	Diphase solvent-base alkaline cold- tank paint & carbon remover.
PAINT & CARBON	• S-2067 (HD) (non pheno	lic) MIL-R-83936-B	Hot alkaline diphase paint stripper for tank applications.
REMOVERS	CARB-OVER-154 (pheno	olic) SAE-AMS-19853	Diphase solvent-base alkaline cold- tank carbon & paint remover.
	SOLVENT 680 TYPE II     (environmentally friendly)	MIL-PRF-680 TYPE II	Degreasing-solvent.
2011/21/2	• NAPHTHA	TT-N-95B	Cleaner
SOLVENT CLEANERS	• KEM-SOLVE -1212	D6-17487	Cleaner - Solvent
	• KEM-SOLVE-2475	D6-17487	Cleaner – Solvent, removes paint residues stripping.
			0
	• K – 310	MIL-C-85704 TYPE I	Concentrated hydrocarbon based emulsion cleaner.
GAS TURBINE COMPRESSOR	• K – 320	AIL-C-85704 TYPE II	Concentrated water based cleaner
CLEANERS	11 - 520	O-00704	Concentrated water pased clearler



#### **MATERIALS CONFORMING**

#### **TO U.S. SPECIFICATIONS**

#### 2017

The first column gives the specifications.

Military, Federal and Aerospace specifications are numerically indexed.

The second column in this list gives the applicable EUROCHEM products.

The third column gives the description of the products.

MATERIALS
CONFORMING
UNDER
U.S. MILITARY
SPECIFICATIONS
(MIL)

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#### **MILITARY SPECIFICATIONS**

SPECIFICATION NUMBER	EUROCHEM PRODUCT	DESCRIPTION
MIL-PRF-680A	SOLVENT-680 TYPE II (QPL)	Dry cleaning and degreasing solvent.
MIL-B-3242 B (SHIPS)	KEM - B.T	Boiler Compound, Navy
MIL-C-5410 B Type I Type II	M – 2220 M – 2240	Cleaning Compound, Aluminum Surface, Non flammable - Sustaining
MIL-C-5541 D	KEMCOT (Powder) KEMCOT - L (Liquid)	Chemical conversion coatings on Aluminum and Aluminum alloys.
MIL-C-5543 A	M – 2285	Cleaning Compound, Washing Machine, Aircraft Metal Parts.
MIL-C-6864 C	M – 2266	Cleaning Compound, Solvent, Oil Cooler.
MIL-R-8633	S – 2047	Remover, Paint, Non-Flammable.
MIL-C-10578 D Type I Type II Type III Type IV Type V	RR - 2333 RR - 2381 RR - 2360 RR - 2355 RR - 2359	Corrosion Removing and Metal Conditioning Compound (Phosphoric Acid Base).
MIL-C-11090 E	KEM - O.R	Cleaning Compound, Degreasing and Depreserving Solvent, Self- Emulsifying.
MIL-T-12879 Type I class 1	PHOSPHAT - Z 101	Treatment, Chemical, Prepaint and Corrosion Inhibitive for Zinc Surfaces.



SPECIFICATION NUMBER	EUROCHEM PRODUCT	DESCRIPTION
MIL-C-13924 C	KEM – BLACK	Coating, Oxide, Black, for Ferrous Metals.
MIL-C-14460 C Type I	CR – 2001	Corrosion Removing Compound, Sodium Hydroxide Base, for Electrolytic or Immersion Application.
MIL-C-16173 D Grade 1 Grade 2 Grade 3 Grade 4 Grade 5	Corrosion Preventive No.1 Corrosion Preventive No.2 Corrosion Preventive No.3 IS -2006 Corrosion Preventive No.5	Corrosion Preventive Compound, Solvent Cutback, Cold -Application.
MIL-P-16232 F Type M Type Z	PHOSPHAT - M (for classes 1,2,3) PHOSPHAT - Z 101	Phosphate Coatings, Heavy, Manganese or Zinc Base (For Ferrous Metals).
MIL – D 16791  Type I  Type II	(for classes 1,2,3)  KLEENOL - 791/I  KLEENOL - 791/II	Detergent, general purpose (liquid, nonionic) Water soluble Oil soluble
MIL-C-18718	KEM - SOLVE 2444	Solvent, Safety.
SAE-AMS-C-19853 C Type I class 1 Type I class 2 Type II class 1 Type II class 2	CARB - OVER 111 CARB - OVER 154 <b>(QPL)</b> S – 111 S – 154	Carbon Removing Compound (for use in agitating tank).
MIL-C-21614	SOFT SCALE REMOVER	Scale Removing Compound.
MIL-C-22230	M – 2260	Cleaning Compound, Fuel Tank and Bilge.
MIL-C-22542 B (AS)	M – 2255	Cleaning Compound, High Pressure Cleaner, Liquid
MIL-C-22543 E (AS)	KEM - KLEEN 21 KEM - KLEEN 22	Cleaning Compound, Aircraft Surface (Alkaline-Organic- Waterbase Emulsion).



SPECIFICATION NUMBER	EUROCHEM PRODUCT	DESCRIPTION
MIL-C-23411 A	C.P – 2555	Corrosion Preventive Compound.
MIL-S-23496	M – 2280	Scale Conditioning Compound, Alkaline, Hot Section Jet - Engine Parts.
MIL-C-25107 B	CARB - OVER 115	Carbon Removing Compound, Orthodichlorobenzene for Engine Parts.
MIL-R-25134 B	KEM – 2040	Remover, Paint and Lacquer, Solvent Type.
MIL-I-25135	2008 CRACK DETECTION KIT	Inspection Material, Dye.
MIL-C-25769 J (USAF)	AC – 55	Cleaning Compounds, Aircraft Surface, Alkaline Water Base.
MIL-D-26549 A (USAF)	M - 2280 – 4	Descaling Compound, Alkaline, Hot Section Jet Engine Parts.
MIL-C-27251	KEM - KLEEN 33	Cleaning Compound, Aircraft Surface, Low Temperature.
MIL-C-38334 A Type I class 1	RR – 2322	Corrosion Removing Compound Prepaint, for Aircraft Aluminum Surfaces.
MIL-C-38736 B Type I Type II	KEM - SOLVE 336 KEM - SOLVE 346	Cleaning Compound, Solvent Mixtures (Metric).
MIL-C-43616 C Class 1	EC – 201 <b>(QPL)</b>	Cleaning Compound, Aircraft Surface.
MIL-R-81294 C	PR – 2025	Remover, Paint, Epoxy, Polysulfide and Polyurethane Systems
MIL-C-81302 D Type II Type IIA (spray)	KEM - SOLVE 1313 KEM - SOLVE 1313	Cleaning, Compound Solvent, for Electronic Parts



#### SPECIFICATION NUMBER **EUROCHEM PRODUCT** DESCRIPTION MIL-C-81309 Corrosion Preventive Compounds, Water Displacing Ultra - Thin Film. Type II class 1,2 PREVENTOL - 21 Type III class 1,2 PREVENTOL - 31 MIL-C-81706 Chemical Conversion Materials for Form II KEMCOT (Powder) Coating Aluminum and Aluminum Form III KEMCOT (Liquid) Alloys. Remover, Acid Activated, for Amine -MIL-R-81903 A (AS) KEM - 2015 AP Type I,class 1 Cured Epoxy Coating Systems. MIL-R-83936 A (USAF) Remover, Paint, Tank Types for Types I and II Aircraft Wheels, Landing Gear Class 1 S - 2020 Components and Other Aircraft and Class 2 S - 2055Age Components Remover, Paint, Tank Types for S - 2067 H Aircraft Wheels, Landing Gear MIL-R-83936 B (USAF) S - 2067 HD Components and other Aircraft and Age Components. Cleaning compound, MIL-PRF-85570 C KLEENOL-2000-PRO Aircraft exterior, solvent Type I Base. Water dilutable. In-place Jet Engine Compressor K - 310MIL-C-85704 Cleaner. Cleaning Compounds, Aircraft AC - 55 A MIL-C-87936 B (USAF) Exterior, Surfaces Water dilutable.



#### **FEDERAL SPECIFICATIONS**

SPECIFICATION NUMBER	EUROCHEM PRODUCT	DESCRIPTION
P-C-111 D	CARB - OVER 166	Carbon Removing Compound.
TT-R-230 B Class 1 Class 2	S - 2080 S - 2085	Remover, Paint (Alkali-Type for Hot Application).
TT-R-248 B	S - 2099 S - 2099 A	Remover, Paint and Lacquer, Solvent Type
TT-R-251 H Type III class A Type III class B Type IV class A Type IV class B	S - 2043 S - 2011 S - 2043 S - 2011	Remover, Paint (Organic Solvent Type).
P-C-436 E	KEM - KLEEN 41	Cleaning Compound Alkali Boiling Vat (Soak) or Hydrosteam.
P-C-437 B	M - 2288	Cleaning Compound, High pressure (steam) Cleaner.
P-C-444 B Type I Type II	KEM-201(Non Phenolic) KEM - 251(Phenolic)	Cleaning Compound Solvent Soluble, Grease Emulsifying.



SPECIFICATION NUMBER	EUROCHEM PRODUCT	DESCRIPTION
TT-C-490 C		Cleaning Methods for Ferrous Surfaces and Treatments for Organic Coatings
Method II	KEM - SOLVE 2450 KEM - SOLVE 2452	Solvent (immersion, spray or vapor).
Method III	KEM - 255 KEM - 266	Hot alkaline immersion, spray or electrolytic) for ferrous surface only
Method IV	KEM - O.R 1 KEM - O.R 2	Emulsion (with or without added water).
Method V	ARR - I	Alkaline derusting (for ferrous surfaces only).
Method VI	R.R - 2333	Phosphoric acid type product.
Type I	PHOSPHAT - Z 101 PHOSPHAT - Z 111	Zinc phosphate
Type II	PHOSPHAT - F	Iron phosphate
P-S-661	KEM - SOLVE 2455	Dry Cleaning Solvent
P-D-680 Type II Replaced by MIL-PRF-680A	SOLVENT-680 TYPE II (QPL)	Dry Cleaning and Degreasing Solvent.
O-C-1889	KEM - SOLVE 2444	Cleaning Compound, Safety Solvent.





#### **AEROSPACE MATERIAL SPECIFICATIONS**

SPECIFICATION NUMBER **EUROCHEM PRODUCT DESCRIPTION** Carbon Removing Compound, SAE-AMS-1546A CARB - OVER 115 Orthodichlorobenzene for Engine Parts. SAE-AMS-C-19853 C Type I class 1 CARB - OVER 111 Carbon Removing Compound (for CARB - OVER 154 (QPL) Type I class 2 use in agitating tank).

S – 111

S - 154



Type II class 1

Type II class 2



# INDICATIVE PRODUCT DATA SHEETS



For products not included you may visit our site www.eurochemgr.com or contact our company.



#### **KEM-KLEEN-37**

#### ENVIRONMENTALLY FRIENDLY WATER BASE- HEAVY DUTY CLEANER AIRCRAFT & AEROSPACE EQUIPMENT

#### **DESCRIPTION**

KEM-KLEEN-37 is a water base concentrated liquid, heavy duty, water dilutable cleaner for use on aerospace equipment to include aircraft, aerospace ground equipment (AGE) and AGE engines.

Meets the requirements of the following specifications:

MIL-PRF-87937 D TYPE IV AMS 1526C BOEING Document D6-17487

#### **APPLICATION**

KEM-KLEEN-37 is designed especially for the removal of dirt, oil, light grease, light carbon and smoke stains from painted and unpainted aircraft surfaces.

KEM-KLEEN -37 is safe for all kind of metals and well bonded painted surfaces. Can be used also as a cleaner for all aircraft components. Does not destroy the anodized surfaces.

#### **USAGE**

KEM-KLEEN-37 may be used neat or diluted with water in varying concentrations depending on the heaviness of the soil.

- 1. For heavy duty cleaning: Dilute 1 part concentrate up to 5 parts of water.
- 2. For normal cleaning: Dilute 1 part concentrate up to 10 parts of water.
- 3. For light cleaning: Dilute 1 part concentrate up to 20 parts of water. The same dilution is also used for cleaning acrylic surfaces.

KEM-KLEEN-37 is applied by immersion, mop or spray. Allow to stand on surfaces for 5-10 minutes, then slightly move over the soiled areas with a mop and rinse off with high-pressure water.

#### **SAFETY**

Avoid contact with skin and eyes. For further information refer to Material Safety Data Sheet.

#### **PACKAGING**

KEM-KLEEN-37 is available in 5 & 55 gallon drums.

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**EUROCHEM S.A.** 



#### KEM-KLEEN-937

# TERPENE BASED, WATER DILUTABLE EXTERIOR AIRCRAFT SURFACE & AEROSPACE EQUIPMENT CLEANER

#### **DESCRIPTION**

KEM-KLEEN-937 is a terpene based, solvent emulsion, water dilutable exterior aircraft surface & aerospace equipment cleaner, which meets the requirements of BOEING Document D6 – 17487, MIL-PRF-87937D Type I.

#### **BENEFITS**

Safe on all metals

Contains terpenes and has a pleasant citrus soils.

Powerful heavy duty cleaner - degreaser, especially on greasy soils.

All surfactants are biodegradable.

#### **APPLICATION**

KEM-KLEEN-937 is formulated to effectively clean painted and unpainted aircraft exterior surfaces and aerospace equipment. Removes dirt, grease, petroleum and synthetic oils, light carbon, etc. It is safe on all metals and well bonded paints.

#### **USAGE**

KEM-KLEEN-937 may be used neat or diluted with water in varying concentrations depending on the heaviness of the soil.

- 1. For normal cleaning: Is used diluted up to 8 parts of water.
- 2. For heavy duty cleaning: Is used diluted up to 2 parts of water.
- 3. For landing gears and wheel wells: Is used diluted up to 2 parts of water.
- 4. <u>For engines, equipments and spare parts</u>,: Is used neat or diluted up to 1 part of water.

KEM-KLEEN-937 is applied by immersion, mop or spray. Allow to stand on surfaces for 15-30 minutes, then slightly move over the soiled areas with a mop and rinse off with high-pressure water.

#### **SAFETY**

Avoid contact with skin and eyes. For further instructions refer to analytical Material Safety Data Sheet.

#### **PACKAGING**

KEM-KLEEN-937 is available in 55 gl drums.



#### <u>KLEENOL 2000 – PRO</u> AROMATIC SOLVENT BASED EXTERIOR AIRCRAFT CLEANER

#### **DESCRIPTION**

KLEENOL 2000 - PRO is an aromatic solvent based concentrated liquid, heavy duty, water dilutable cleaner which meets the requirements of BOEING Document D6-17487, MIL-PRF-85570D TYPE I, AMS 1526 and AMS 1527.

#### **APPLICATION**

KLEENOL 2000 - PRO is designed especially for removing dirt, oil, light grease, light carbon and smoke stains from painted and unpainted exterior aircraft surfaces.

KLEENOL 2000 - PRO is safe for all kind of metals and well bonded painted surfaces. Can be used also as a cleaner for all aircraft components. Does not destroy the anodized surfaces.

#### **USAGE**

KLEENOL 2000 - PRO may be used neat or diluted with water in varying concentrations depending on the heaviness of the soil.

- 1. For heavy soils: Use neat or dilute 1 part concentrate up to 4 parts of water.
- 2. For moderate soils: Dilute 1 part concentrate up to 9 parts of water.
- 3. For light soils: Dilute 1 part concentrate up to 14 parts of water.

KLEENOL 2000 - PRO is applied by immersion, mopped or spraying. Allow to stand on surfaces for 5-10 minutes, then slightly move over the soiled areas with a mop and rinse off with high pressure water.

#### **PRODUCT PROPERTIES**

Appearance : Clear liquid. Flash point : > 60 °C Ph :  $8,5 \pm 1$ 

#### **SAFETY**

Avoid contact with skin and eyes. For further information refer to analytical Material Safety Data Sheet.

#### **PACKAGING**

KLEENOL 2000 - PRO is available in 55 gallons drums



#### **EC - 201**

#### **DESCRIPTION**

EC-201 is a concentrated liquid, heavy duty, water dilutable cleaner which meets the requirements of BOEING Document D6-17487 and MIL-C-43616C CLASS 1 and A-A-59921.

#### **APPLICATION**

EC-201 is designed especially for the removal of dirt, oil, light grease, light carbon and smoke stains from painted and unpainted exterior aircraft surfaces.

EC-201 is safe for all kind of metals and well bonded painted surfaces. Can be used also as a cleaner for all aircraft components. Does not destroy the anodized surfaces.

#### **USAGE**

EC-201 may be used neat or diluted with water in varying concentrations depending on the heaviness of the soil.

- 1. For heavy duty cleaning: Dilute 1 part concentrate up to 5 parts of water.
- 2. For normal cleaning: Dilute 1 part concentrate up to 10 parts of water.
- 3. <u>For light cleaning</u>: Dilute 1 part concentrate up to 20 parts of water. The same dilution is also used for cleaning acrylic surfaces.

EC-201 is applied by immersion, mop, spray or conventional foamers. Allow to stand on surfaces for 5-10 minutes, then slightly move over the soiled areas with a mop and rinse off with high-pressure water.

#### **APPROVALS**

MIL-C-43616C CLASS 1 (QPL product).

#### **SAFETY**

Avoid contact with skin and eyes. For further information refer to Material Safety Data Sheet.

#### **PACKAGING**

#### EC-201 is available as follows:

- a) 20 liter pails and 210 liter drums.
- b) 16 oz Spray-aerosol (specification A-A-59921.

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# KEM-KLEEN 68 (AIRCRAFT INTERIOR CLEANER)

#### GIVES 4 WAYS CLEANING ACTION: CLEANER – GERMICIDE – SANITIZER - DEODORIZER

#### **Description**

KEM-KLEEN 68 is a pleasantly aromatized liquid, originally formulated to clean all interior aircraft surfaces.

Meets the requirements of AMS 1550 and BOEING DOCUMENT D6-7127. KEM-KLEEN 68 is safe to all inner surfaces and seats of aircrafts.

KEM-KLEEN 68 is not only a cleaner but ...................... at the same time is a **GERMICIDE – SANITIZER – DEODORIZER.** 

#### Kills germs on contact

KEM-KLEEN 68 is a true germicide ....... not just a sanitizer. This effective product kills many germs including Staphylococci and many other dangerous bacteria that may threaten the health of passengers.

#### A Real Deodorizer.....

#### "NOT JUST A COVER – UP"

By destroying many bacteria, KEM-KLEEN 68 destroys the source of most odors. Rather than merely perfuming a disagreeable smell, KEM-KLEEN 68 hits the cause – and leaves the air sweet and truly clean.

#### Uses

KEM-KLEEN 68 is used for removing all customary soils as stains, oils, nicotine, crayon etc. from inner surfaces and seats of aircrafts.

#### Method of use

KEM-KLEEN 68 is normally used diluted in water in a proportion ranging of 1 part of KEM-KLEEN 68 with 10-15 parts of water. The solution then is applied by spray or swab. After a suitable wetting period, depending on degree and type of contamination, wipe off with a clean-dry, cloth. Stubborn spots may require application of a more concentrated solution. Rinsing is not required, but is desirable for most effective removal of loosened dirt film.

#### **Safety**

Avoid contact with skin and eyes. For further information refer to analytical Material Safety Data Sheet.



#### DEODORANT CONCENTRATED

#### AIRCRAFT TOILET DISINFECTANT / DEODORIZER

DEODORANT CONCENTRATED is a completely soluble, non flammable, non corrosive liquid toilet disinfectant / deodorizer.

DEODORANT CONCENTRATED is formaldehyde free and all the detergents are biodegradable. It contains chemical and aromatizing agents which do not just mask, but actually prevent the formation of odors.

At use concentrations, DEODORANT CONCENTRATED is non-corrosive to all metals and materials used in the toilet systems.

Because it is a liquid, DEODORANT CONCENTRATED it is easier in handling than powders or pellets. It also contains a **deep-blue color indicator**, which allows ease inspection of tanks for presence of deodorant.

DEODORANT CONCENTRATED solution lasts throughout the complete flight and does not require constant checking or "in-flight" replenishing.

#### **Specifications**

#### **DEODORANT CONCENTRATED meets the following specifications:**

Conforms to the requirements for non-corrosivity of metals and compatibility with nonmetallic materials of AMS 1476B.

BOEING DOCUMENT D6-17487

#### **Technical information**

Appearance: Dark blue liquid.

Density:  $1,00 \pm 0,01$ 

Flash Point: Non-flammable.

#### **Utilization**

The recommended dilution for DEODORANT CONCENTRATED is 1 % in water of total capacity of the system reservoir. To maintain this concentration, reestablish the intensity of the blue coloration by adding small quantities of DEODORANT CONCENTRATED

This proportion can be reduced or increased depending in the flight duration and the desired result.

#### **Use Precaution**

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

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#### KEM - 2015 - AP

#### THE MOST EFFECTIVE PAINT REMOVER ACID ACTIVATED FOR AMINE-CURED EPOXY COATING SYSTEMS

#### **Description**

**KEM-2015** AP is a viscous, acid activated, water rinsable, aircraft paint stripper, which meets the requirements of MIL-R-81903 TYPE II, class 1.

#### **Application**

**KEM-2015** AP is especially designed for removing mainly polyurethane, epoxy paints and other highly resistant coatings where traditional paint removers have poor

Since the product is of a viscous nature, it is ideal for use on vertical or inclined surfaces.

**KEM-2015** AP is not corrosive to most of metals such as Aluminum, Titanium, Cadmium plated steels etc. Do not use **KEM-2015 AP** on Magnesium and Magnesium alloys.

#### **Advantages**

The most effective paint remover used where traditional paint removers have poor results.

Non-flammable.

Easily rinsed with cold water.

Can be applied by brush or non-atomizing spray methods.

Used as received. No mixing or dilution required.

Used at room temperature.

#### **Usage**

KEM-2015 AP can be applied as received by brush or spray. Because it is thick it is ideal for vertical surfaces.

Allow KEM-2015 AP sufficient dwell time for thorough loosening or blistering of the paint. When paint is loose, thoroughly agitate all areas with a stiff bristle brush. The complete removal of the paint residues is accomplished with high pressure, high volume, cold water or with a steam cleaning machine.

Normally a coat of KEM-2015 AP is sufficient to remove more than one coating of paint.

#### **Safety**

**KEM-2015 AP** contains chlorinated hydrocarbons and phenolic bodies. Avoid contact with skin, eyes and clothing. Gloves, goggles, face shields are recommended when handling. For further information refer to Material Safety Data Sheet.

#### **Packaging**

**KEM-2015 AP** is available in 250 kg drums.



#### KEM - 2015 - NP

## VERY EFFECTIVE PAINT REMOVER ACID ACTIVATED FOR AMINE-CURED EPOXY COATING SYSTEMS

#### **Description**

**KEM-2015 NP** is a viscous, acid activated, non phenolic water rinsable, aircraft paint stripper, which meets the requirements of MIL-R-81903 TYPE III, class 2.

#### **Application**

**KEM-2015 NP** is especially designed for removing mainly polyurethane, epoxy paints and other highly resistant coatings where traditional paint removers have poor results.

Since the product is of a viscous nature, it is ideal for use on vertical or inclined surfaces.

**KEM-2015 NP** is not corrosive to most of metals such as Aluminum, Titanium, Cadmium plated steels etc. Do not use **KEM-2015 NP** on Magnesium and Magnesium alloys.

#### **Advantages**

The most effective paint remover used where traditional paint removers have poor results.

Non-flammable.

Easily rinsed with cold water.

Can be applied by brush or non-atomizing spray methods.

Used as received. No mixing or dilution required.

Used at room temperature.

#### **Usage**

**KEM-2015 NP** can be applied as received by brush or spray. Because it is thick it is ideal for vertical surfaces.

Allow **KEM-2015 NP** sufficient dwell time for thorough loosening or blistering of the paint. When paint is loose, thoroughly agitate all areas with a stiff bristle brush. The complete removal of the paint residues is accomplished with high pressure, high volume, cold water or with a steam cleaning machine.

Normally a coat of  $KEM-2015\ NP$  is sufficient to remove more than one coating of paint.

#### Safety

**KEM-2015 NP** contains chlorinated hydrocarbons and inorganic acids. Avoid contact with skin, eyes and clothing. Gloves, goggles, face shields are recommended when handling. For further information refer to Material Safety Data Sheet.

#### **Packaging**

**KEM-2015 NP** is available in 250 kg drums.



#### <u>PR – 2025</u> (EPOXY & POLYURETHANE PAINT REMOVER)

#### **Description**

**PR-2025** is a very effective, thickened paint stripper, which meets the requirements of MIL-R-81294D Type I, II, III & IV, Class 1 (phenolic, chromate inhibited) and BOEING Document D6-17847.

#### **Application**

**PR-2025** is especially designed for removing epoxy and polyurethane paints as well as other difficult to remove organic coatings from the metal surfaces of the aircrafts. It is safe for all type of metals.

#### **Advantages**

Safe to all metals.

Very effective, normally removes more than one coating of paint.

Non-flammable.

Easily rinsed with cold water.

Can be applied by brush or non-atomizing spray methods.

Used as received. No mixing or dilution required.

Used at room temperature.

#### **Usage**

**PR-2025** can be applied as received by brush or spray. Because it is thick it is ideal for vertical surfaces.

Allow **PR-2025** sufficient dwell time for thorough loosening or blistering of the paint. When paint is loose, thoroughly agitate all areas with a stiff bristle brush. The complete removal of the paint residues is accomplished with high pressure, high volume, cold water or with a steam cleaning machine.

Normally a coat of PR-2025 is sufficient to remove more than one coating of paint.

Where multicoat systems have to be removed, it may be necessary to use more than one application of **PR-2025**.

#### **Safety**

**PR-2025** contains chlorinated hydrocarbons and phenolic bodies. Avoid contact with skin, eyes and clothing. Gloves, goggles, face shields are recommended when handling. For further information refer to Material Safety Data Sheet.

#### **Packaging**

**PR-2025** is available in 5 & 55 gallons.



#### PR-2094

#### MIL-R-81294D TYPE I,II, III & IV, CLASS 2 NON-PHENOLIC, CHROMATE INHIBITED (EPOXY & POLYURETHANE PAINT REMOVER)

#### **Description**

**PR-2094** is a very effective, ammonia-activated, viscous, paint stripper, which meets the requirements of MIL-R-81294D Type I, II, III & IV, Class 2 (Non-phenolic, chromate inhibited) and BOEING Document D6-17847.

#### **Application**

**PR-2094** is especially designed for removing epoxy and polyurethane paints as well as other difficult to remove organic coatings including sealants and adhesives from the metal surfaces of the aircrafts. It is safe for all kind of metals.

#### **Advantages**

Safe to all metals. Phenol free.

Very effective, normally removes more than one coating of paint.

Non-flammable.

Easily rinsed with cold water.

Can be applied by brush or non-atomizing spray methods.

Used as received. No mixing or dilution required.

Used at room temperature.

#### **Usage**

**PR-2094** can be applied as received by brush or spray. Because it is thick it is ideal for vertical surfaces.

Allow **PR-2094** sufficient dwell time for thorough loosening or blistering of the paint. When paint is loose, thoroughly agitate all areas with a stiff bristle brush. The complete removal of the paint residues is accomplished with high pressure, high volume, cold water or with a steam cleaning machine.

Normally a coat of PR-2094 is sufficient to remove more than one coating of paint.

Where multicoat systems have to be removed, it may be necessary to use more than one application of **PR-2094**.

#### **Safety**

**PR-2094** contains chlorinated hydrocarbons. Avoid contact with skin, eyes and clothing. Gloves, goggles, face shields are recommended when handling. For further information refer to Material Safety Data Sheet.

#### **Packaging**

PR-2094 is available in 55 gallons.



#### S - 2055

#### **Description**

S-2055 is a strong aircraft paint stripper tank – type in liquid form with two – layers which meets the requirements of MIL – R-83936 A Type I, class II and Type II, class II and BOEING DOCUMENTS D6 – 17 487.

#### **Application**

S- 2055 is applied mainly for removing paint coatings from the landing gear wheels of aircraft. It is excellent for the removal of the most types of paint coatings such as polyurethane, epoxies, nitrocelluloses etc. S-2055 except paint, removes also carbon deposit oils, greases etc.

#### <u>Usage</u>

S- 2055 is used only <u>cold and by immersion</u>. The parts to be stripped must be totally immersed in the lower layer. Most paint schemes will be removed fairly readily but the very resistant types may require several hours soaking. After soaking parts must be rinsed with water under pressure.

#### **Products properties**

Appearance: Liquid with two - layers

pH (low layer): > 10

Compatibility: Doesn't corrode metals.

May swell rubbers.

#### **General information**

Mild steel or stainless steel are recommended for tank construction. The upper layer is an aqueous solution containing anti – corrosion agents, special additives etc. The aqueous solution of upper layer prevents the evaporation of the lower layer which is the drastic one. Add water in order to minimize the drag – out loss of the upper layer.

#### **Safety**

S-2055 contains chlorinated solvents and phenolic bodies. Avoid contact with skin, eyes and clothing. Gloves, goggles, face shields are recommended when handling.

#### **Packaging**

S - 2055 is available in 55 gallon drums.



#### S-2067-HD

#### NON PHENOLIC PAINT REMOVER SAE-AMS-1374A Type 2, Class 1 & MIL – PRF – 83936 C

#### **Description**

**S-2067-HD** is a solvent based hot tank paint remover, specifically designed for removing paint from aircraft wheels and landing gear components and meets the requirements of SAE-AMS-1374A Type 2, Class 1 and U.S. Military Specification MIL – PRF – 83936 C.

#### **Application**

**S-2067-HD** is applied, mainly for removing paint coatings from the landing gear wheels of aircrafts. Removes also the most types of paint coatings such as polyurethanes, epoxies, nitrocellulose etc.

It is safe for all metals and does not attack the anodic coatings.

Except paints removes also oils, greases, carbon deposits etc.

#### **Usage**

**S-2067-HD** is used full strength at a temperature of 65-80 °C.

The parts are immersed in such a way to assume that they are in contact with the lower layer which is the active one. Allow parts to remain in the product until blistering of the paint coatings.

The complete removal of the paint residues is accomplished with water under pressure.

#### **Seal Level**

Maintain seal level at 4 inches in depth and in the range of 13-15% total tank volume by the addition of clean tap water.

#### **Product properties**

Appearance : Liquid of two layers.

pH (lower layer) : > 10.

#### **General Information**

Mild steel or stainless steel tank are suitable for operating baths. The upper layer is an aqueous solution which contains catalysts, corrosion inhibitors and prevents the evaporation of the lower layer which is the active one. In time to time an addition of water is necessary in order to minimize the drag-out.

#### **Safety**

S-2067-HD contains chlorinated hydrocarbons and amines. Avoid contact with skin and mainly with eyes. Refer to MSDS for further information.



### **CARB-OVER 154**

#### <u>MIL – C – 19853 TYPE I CLASS 2</u>

R

#### MIL - R - 19853 TYPE I CLASS 2

#### **DESCRIPTION:**

CARB-OVER 154 is a two layers phenolic tank type carbon and paint remover that removes carbon and paint from ferrous and nonferrous parts safely and effectively which meets the requirements of U.S specifications AMS-C-19853 Type I, class 2 and MIL - R - 19853 Type I class 2.

#### **BENEFITS:**

- Non flammable
- Long tank life
- Non corrosive to all metals
- Is enlisted on the Qualified Product List (QPL) in accordance to SAE-AMS-C-19853 (Type I Class 2)
- No heating expense

#### **Application**

CARB-OVER 154 is applied for removing carbon deposits, oils, greasers etc. from the components of reciprocating and "jet" engines of the aircrafts.

Removes many types of paint coatings and it is safe on aluminum, ferrous, magnesium etc. Doesn't attack the anodize coatings.

#### **USAGE:**

CARB-OVER 154 is used straight and cold. (Do not heat).

It is a two-layer material. The top layer is a floating seal that prevents escape of solvent vapors and minimizes drag out.

Parts should be totally immersed in the lower layer for 1 to 3 hours.

Immersion time varies, depending on the nature of the carbonized deposits, paint, soil, etc.

Increase or decrease time accordingly.

Upon withdrawal from CARB-OVER 154 tank, parts should be rinsed with hot or cold high-pressure water. Maintain the seal layer in a range of 13-15% total tank volume by adding periodically small quantities of water to replace evaporation.

#### **REMOVING SLUDGE:**

Periodically allow the solution to settle for 24 hours, so it can be drained off and the sludge removed from the bottom of the tank.

#### **CAUTION**:

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

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#### SOLVENT – 680 TYPE II

# MIL-PRF-680 TYPE II «DEGREASING SOLVENT» LOW ODOR SOLVENT – HIGH FLASH POINT *QPL PRODUCT*

#### **Description – Intended Use**

All the products under specification MIL-PRF-680 are used as degreasers and cleaners for painted and unpainted metal surface and degreasing of machine parts in equipment maintenance.

TYPE II (low odor with high flash point solvent) is intended for use where a solvent with a higher flash point is desired. It is recommended over Type I for safety and regulatory reasons.

## **Advantages:** MIL-PRF-680 Type II has replaced PD-680 Type II and has the following advantages:

- Safe to personnel contains less than 0,01% aromatics in comparison to PD-680 Type II that contains approximately 20%.
- Almost odorless.
- Much safer to metals in comparison to PD-680 Type II.
- More efficient.
- Since it does not contain aromatics it is much safer to the environment.
- Is enlisted on the Qualified Product List (QPL) in accordance with specification MIL-PRF-680 TYPE II.

#### **Product properties:**

Flash point °C, min 61 Distillation range °C 185-211 Kauri-butanol value 30 Copper Corrosion, max 1b Sandwich Corrosion, max Acidity Neutral **Doctor Test** Negative Aromatic content, by volume %, max 0,01 Specific Gravity  $0,79 \pm 0,01$ Color

Odor Low and non-residual

Soil Cleaning efficiency, min 85%

**Usage:** Used neat by brush, spray or dipping. Do not rinse off allow to dry.

**Safety:** Avoid contact with skin and eyes. For further instructions refer to MSDS.

Packaging: SOLVENT- 680 TYPE II is offered in 20 or 25 liter pails and 210 liter drums.

<u>Note:</u> Our company manufactures all 5 types of MIL-PRF-680, Type I, Type II, Type III, Type IV and Type V in conformance with the specification MIL-PRF-680.



#### **KEM - SOLVE 1212**

#### **DESCRIPTION**

KEM - SOLVE 1212 is a liquid product with high flash point which meets the requirements of BOEING Document D6-17487.

#### **APPLICATION**

KEM - SOLVE 1212 is used for removing oils, greases, dust, light carbon deposits e.t.c from electric equipment, machineries, electrical cables, generators e.t.c. Does not destroy plastic surfaces and is safe for all kind of metals. Has high cleaning and solvency capacity.

#### **USAGE**

KEM - SOLVE 1212 is applied neat by spraying, mopping or brushing.

#### **PRODUCT PROPERTIES**

Appearance: Clear colorless liquid.

T.L.V: 400 p.p.m.

KEM - SOLVE 1212 in confront of tetrachloride has a margine of safety about 20-30 times greater.

#### **SAFETY**

KEM - SOLVE 1212 must be used in well ventilated areas and must be kept away from sun.

It is reccomended when handling to use gloves, aprons, face shields e.t.c.

#### **PACKAGING**

KEM - SOLVE 1212 is available in 55 gallons drums.

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#### **KEM - SOLVE 2475**

#### **Description**

KEM - SOLVE 2475 is a non-flammable liquid wipe solvent, especially formulated to substitute all flammable solvents used in aircraft industries. Meets the requirements of BOEING Document D6-17487.

Also meets the corrosion requirements of MIL-R-81294.

#### **Application**

KEM - SOLVE 2475 is used for:

- the cleaning of fuel tanks.
- the removal of the paint residues.
- the cleaning of the surfaces after stripping.
- the removal of oils, greases etc.
- the cleaning of the spray guns after painting.

KEM - SOLVE 2475 leaves surfaces free of residues, has high cleaning efficiency and is safe for all kind of metals. Because of it is practically non flammable can be used even when current is on.

#### <u>Usage</u>

KEM - SOLVE 2475 is applied neat by spray or brush.

#### **Product Properties**

Appearance: Colorless liquid. Flammability: Non-flammable. Specific gravity:  $1,23 \pm 0,05$ .

#### **Safety**

KEM - SOLVE 2475 must be used in well-ventilated areas and must be kept away from sun. It is recommended when handling to use gloves, aprons, face shields etc.(for further instructions refer to MSDS).

#### **Packaging**

KEM - SOLVE 2475 is available in 55 gallons drums.

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#### K - 310

#### «SOLVENT EMULSION CLEANER CONCENTRATE CONTAINING AROMATIC HYDROCARBON SOLVENTS» FOR

#### ON- LINE & OFF-LINE CLEANING GAS TURBINE COMPRESSORS

#### **Description**

K-310 is the most effective (compared with water based cleaners) concentrated liquid cleaner which has proved effective in the removal of oil, salt and solid deposits from compressor blades, guide vanes, and rotors of industrial, marine and aviation gas turbine engines. Periodic cleaning of these components is necessary to avoid power loss and abnormal temperature increases.

#### **Specifications**

K-310 meets the following specifications:

U.S. Military Specification MIL – PRF – 85704 Type I. Solarturbines Specification ES – 9 – 62.

General Electric Specification GEK 107122B.

#### **Application**

1) For On-Line, Cleaning:

On-line cleaning with K-310 is normally carried out by mixing 1 part of K-310 concentrate with up to 4 parts demineralized, distilled or deionized water into a stable solution.

The volume of chemical solution needed per wash and frequency of use depends on engine size, severity of fouling and operating environment. Detailed user instructions and recommendations are provided in the EUROCHEM manual and by our technical staff.

Two typical procedures for cleaning are given in our bulletin for in-place cleaning Gas Turbine Compressors.

2) For Off-Line, Crank Washing.

Off-line cleaning with K-310 is normally carried out by mixing 1 part of K-310 with up to 4 parts distilled, demineralized or deionized water. The solution is injected at cranking speed, allowed to soak for 20 to 60 minutes and then thoroughly rinsed off at cranking speed with distilled or acceptable good quality water.

Volume of cleaning solution per wash and washing frequencies should be as per the normal washing routine of the operator or as recommended by the engine manufacturer.

#### **Packaging**

K-310 is packaged in 210 liter drums and in 30 liter pails.

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#### K - 320

#### «NATURAL SOLVENT BASED CLEANER» FOR ON-LINE & OFF- LINE CLEANING GAS TURBINE COMPRESSORS

#### **Description**

K-320 is a concentrated, natural solvent based, liquid cleaner which has proved effective in the removal of oil, salt and solid deposits from compressor blades, guide vanes, and rotors of industrial, marine and aviation gas turbine engines. Periodic cleaning of these components is necessary to avoid power loss and abnormal temperature increases.

#### **Specifications**

K-320 meets the following specifications:

U.S. Military Specification MIL – PRF – 85704 TYPE II & III. Solarturbines Specification ES – 9 – 62. General Electric Specification GEK 107122B. Boeing D-6 17487

#### **Application**

1) For On-Line Cleaning:

On-line cleaning with K-320 is normally carried out by mixing 1 part of K-320 concentrate with up to 4 parts of demineralized, distilled or deionized water into a stable solution.

The volume of chemical solution needed per wash and frequency of use depends on engine size, severity of fouling and operating environment. Detailed user instructions and recommendations are provided in the EUROCHEM manual and by our technical staff.

Two typical procedures for cleaning are given in our bulletin for in-place cleaning Gas Turbine Compressors.

2) For Off-Line, Crank Washing.

Off-line cleaning with K-320 is normally carried out by mixing 1 part of K-320 with up to 4 parts distilled, demineralized or deionized water. The solution is injected at cranking speed, allowed to soak for 20 to 60 minutes and then thoroughly rinsed off at cranking speed with distilled or acceptable good quality water.

Volume of cleaning solution per wash and washing frequencies should be as per the normal washing routine of the operator or as recommended by the engine manufacturer.

#### **Packaging**

K-320 is packaged in 210 liter drums and in 30 liter pails.



# M - 2280 - 4 SAE-AMS-1380 TYPE 2 SCALE CONDITIONER, ALKALINE Aircraft Turbine Engine Components

#### **Description**

M-2280-4 is a strong alkaline liquid product which meets the requirements of specification AMS-1380 Type 2 and MIL-D-26549.

#### **Application**

M-2280-4 is a product specially designed for cleaning and removing carbon deposits, metallic oxides and "heat scales" from the "hot section" engine parts.

M-2280-4 can be used for stripping "SermeTel W" type paint.

It is safe for ferrous metals, magnesium and stainless steels parts but it is not safe for aluminum, tin, zinc and their alloys.

#### Usage

It is extremely important to notice that the application method varies depending on the use of the product.

- Generally the product is used neat by immersion in a temperature between 115 135 °C. The immersion time is 45 60 minutes.
- For cleaning titanium parts the temperature must be 72 77 °C.

Because the operating temperature of the solution is greater than the boiling point of the water and because the solution level must be constant, it is necessary to add hot water in order to maintain the temperature of the solution at 115 - 135 °C.

All parts after cleaning are rinsed in hot water and follow the procedure using permaganate and phosphoric or nitric acid solutions.

#### **Alternative Use**

For other applications, according to the degree of contamination, M-2280-4 could be used in lower temperatures up to 90°C and may be diluted with water in a proportion 1:1

#### **Product properties**

Appearance : Clear liquid Specific gravity :  $1,33 \pm 0,05$  Flash point : None

#### **Safety**

M-2280-4 contains alkaline materials. Avoid contact with skin and eyes. Wear protective clothes when handling.

#### **Packaging**

M-2280-4 is available in 55 gallons drums.



#### **KEM-KLEEN 41**

#### (A-A-59146A) CLEANING COMPOUND, ALKALI, BOILING VAT (SOAK) OR HYDROSTEAM

#### **Description**

KEM-KLEEN 41 is a lightly alkaline product in powder form which meets the requirements of P-C-436 E & A-A 59146 A.

#### **Application**

KEM-KLEEN 41 removes oil, grease, light carbon deposits etc. from the components of reciprocating and "jet" engines of the aircrafts.

It is safe on aluminum, ferrous, magnesium etc.

#### **Usage**

KEM-KLEEN 41 is used by hydrosteam cleaning machines or by immersion. KEM-KLEEN 41 is diluted in water in a proportion of 5-6 %. For better cleaning results the solution must be operated at the boiling temperature. The cleaning time is approximately 15-30 minutes. A thorough rinsing with hot water removes all residues.

When KEM-KLEEN 41 is used by spraying, a previous dilution in the above proportions must be done using hot water.

In order to remove tenacious deposits it is recommended the addition of "Hexylene Glycol" solvent in a proportion of 1 part of solvent to 9 parts of KEM-KLEEN 41 5-6 % solution.

#### **Product Properties**

pH (5 % sol): 12 (approximately)
Corrosiveness: Does not corrode metals.

#### Safety

Avoid contact with skin and eyes. For further information refer to Material Safety Data Sheet (MSDS).

#### **Packaging**

It is available in plastic pails of 50 kg.

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#### **RADOM - NC**

#### **Description**

RADOM-NC is a viscous non phenolic liquid product, special formulated to remove paints from "radomes" and "fiberglass parts" of the aircrafts.

#### **Application**

RADOM-NC is used mainly for removing "primers" and main paint coatings from the "radomes" of the aircraft without damaging the structure of the radomes if used according according instructions.

It can be used also for removing varnishes and lacquers from metal surfaces and is suitable for "vertical" surfaces as viscous.

#### <u>Usage</u>

RADOM-NC is applied heat by spray or mup. Apply a sufficient amount of the product on the surface to be stripped and let to act for 30 minutes, taking care to non "dry". Then agitate all areas with a stiff bristle brush and finally rinse with a jet of water.

Take care to avoid contact of the product with "bare" areas of "radomes" or "fiberglass".

#### **Product properties**

Appearance: Viscous liquid.

Flash point : None.

Compatibility: Does not affect metals.

Affects the adhesives of "radomes" or "faberglass"

#### Safety

RADOM-NC contains chlorinated hydrocarbons. Avoid contact with skin and specially with eyes. In case of contact rinse affected part with plenty of water. Take all minimum precautions during handling.

#### **Packaging**

RADOM-NC is available in 55 gallon drums.



#### RR - 2360

#### MIL-C-10578D TYPE III, INHIBITED

## CORROSION REMOVING AND METAL CONDITIONING COMPOUND (PHOSPHORIC ACID BASE)

#### **Description**

RR-2360 is an acidic liquid product containing surfactants and corrosion inhibitors. RR-2360 meets the requirements of MIL-C-10578 D Type III.

#### **Intended Use**

RR-2360 is used as a corrosion removing and metal conditioning compound which, when diluted with water and applied to metal surfaces, will remove rust from ferrous metal surfaces and provide a slight etching action for ferrous and nonferrous metals to promote the adhesion of paint or corrosion preventives.

RR-2360 is intended for use on chromium plated ferrous surfaces and on those ferrous surfaces which require very close tolerances.

It can be used also as the third "tank" of a cleaning series tanks for removing heat scales from the "hot" section parts of a jet engine.

RR-2360 can alternatively be used on aluminum for preparing aluminum parts for painting.

Do not use on zinc, tin and galvanized surfaces.

#### **Usage**

Add 1 part of the concentrated material as received to 1 part of water by volume. Remove heavy rust by wire brush and grease with a grease solvent before applying the compound.

According to the specification the product is to be used 1 part product with 1 part water, although the actual concentration depends on the amount of rust, scale or corrosion to be removed and may be from 10 - 50%.

Apply by spray, dip or flow-brush. Allow the conditioner to remain on the metal surfaces long enough so that the rust is loosened or dissolved and may be removed by rinsing with hot water. When the surface is dry, it may be coated, preserved with a corrosion preventative or put directly into service, as circumstances may indicate.

#### **Safety**

RR-2360 contains acidic ingredients. Avoid contact with skin and eyes. In case of contact rinse thoroughly with plenty of water. Wear protective clothes when handling.

#### **Packaging**

RR–2360 is available in 55 gallons drums.

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# KEMCOT ALUMINUM CONVERSION COATING

# **Description:**

KEMCOT is a specially designed chemical, in powder form, used to provide a chemical conversion coating against corrosion as well as an excellent adhesion for paint on aluminum and aluminum alloys.

KEMCOT can be used by immersion or spray application which provides a golden iridescent film on the aluminum surface and aluminum alloys.

### **Specifications:**

KEMCOT meets the requirements of MIL-DTL-81706B Type I Class 1A & 3 Form II, MIL-DTL-5541F Type I Class 1A & 3 and DIN 50939/1996 (corrosion protection - chromating of aluminum).

# **Pre-Cleaning:**

Before immersion in the KEMCOT tank, surfaces must be free from grease, soils and oxides. RADOL 22/22F (3-5% in the water at room temperature) is recommended for cleaning and deoxidizing. Parts must thoroughly be rinsed with clean water after cleaning. Rinse tanks should be kept pure and refilled daily.

### **Usage:**

KEMCOT is normally used diluted with water in a concentration of 0.5 - 1%. Mix until all solids are dissolved and ascertain the pH 1.5 - 2.1 by adding small amounts of ammonium hydroxide or nitric acid. The pH will probably be within the correct operating range without additions. The clean aluminum parts are immersed in the KEMCOT bath at room temperature for about 3 to 5 minutes depending on the aluminum alloy and the condition of the solution. For spray operations, contact time is 30 seconds to 1 minute. After treatment the parts should be rinsed thoroughly with water. First in water at ambient temperature and then with deionized water. The final dry-off may be accomplished by conventional methods; however, temperature during drying should not exceed  $60^{\circ}$ C.

# **Product properties:**

Appearance : Dark orange - brown powder

pH (1% sol) : 1,5-2,1

# Safety:

KEMCOT contains chromates. Avoid contact with skin and eyes. Rinse with plenty of water in case of contact. Wear protective clothing when handling.

# **Packaging:**

KEMCOT is available in plastic pails or plastic bags of 25 kg.



# **CR - 2001**

# **Description**

CR-2001 is a strong alkaline product in powder form without cyanide salts which meets the requirements of MIL-C-14460 Type I.

# **Application**

Aqueous solutions of CR-2001 are capable of removing rust oils, greases, scales and many air dried paints.

It is safe on ferrous, magnesium, copper, stainless steels and must not be used on aluminum, tin, zinc and their alloys.

# <u>Usage</u>

CR-2001 is used in a concentration of 37 % by weight in water (37 kg of CR-2001 diluted in 63 kg of water). The solution must be kept at a temperature of 95 - 100 °C. The immersion time depends on the amount of soils to be removed but generally a 15 - 60 minutes immersion time is sufficient to remove the most of soils.

Air or mechanical agitation of the solution minimizes the immersion time. A thorough rinsing with water follows the usage of CR-2001.

In case that the part to be cleaned is titanium or its alloys the operating temperature must be kept at 72 - 77 °C and the concentration at 16 %.

# **Product properties**

Appearance: White powder. pH(1 % sol) :> 12.

# **Safety**

CR-2001 contains strong alkali compounds. Avoid contact with skin and eyes. Rinse with plenty of water in case of contact. Wear protective clothes when handling.

### **Packaging**

CR-2001 is available is plastic barrels of 25 or 50 kg.

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# RR - 2322

# **Description**

RR-2322 is a phosphoric acid based viscous material containing surfactants ,which meets the requirements of MIL-C-38334 TYPE I, class 1.

# **Application**

RR-2322 is designed to remove corrosion products from the Aluminum and its alloys surfaces of the aircrafts.

Does not attack the painted surfaces and the acrylic parts of the aircraft.

It is not safe for Magnesium and high strength steels.

# **Usage**

RR-2322 is used by spray, brush or dipping at ambient temperature and diluted in water in a proportion of 1:1.

Allow the solution to remain on the surface for 5-15 minutes depending on the corrosion grade.

Using a bristle brush remove all loosening corrosion products and rinse with water under pressure.

Do not allow the product to dry on the surface.

RR-2322 removes the anodized coatings if is used as supplied. For removing light oxidation from anodized surfaces dilute RR-2322 in a proportion of 1:4 with water.

# **Product properties**

Appearance: Viscous, colorless liquid.

Flash point: None.

Compatibility: Affects only Magnesium and high strength steels.

# **General information**

All needed machinery (pumps, tanks etc.) must be of stainless steel, polyethylene or polypropylene.

If the surface is dirty with oil, grease etc. use special degreasers before applying RR-2322.

The viscosity of the product decreases during storage for long period.

# **Safety**

RR-2322 contains acidic ingredients. Avoid contact with skin and eyes. Wear protective clothes when handling.

### **Packaging**

It is available in 55 gallons drums.



# $\frac{RR - 2360}{(INHIBITED)}$

# **Description**

RR-2360 is an acidic liquid product containing surfactants and corrosion inhibitors. RR-2360 meets the requirements of MIL-C-10578 D Type III.

# **Intended Use**

RR-2360 is used as a corrosion removing and metal conditioning compound which, when diluted with water and applied to metal surfaces, will remove rust from ferrous metal surfaces and provide a slight etching action for ferrous and nonferrous metals to promote the adhesion of paint or corrosion preventives.

RR-2360 is intended for use on chromium plated ferrous surfaces and on those ferrous surfaces which require very close tolerances.

It can be used also as the third "tank" of a cleaning series tanks for removing heat scales from the "hot" section parts of a jet engine.

RR-2360 can alternatively be used on aluminum for preparing aluminum parts for painting.

Do not use on zinc, tin and galvanized surfaces.

## **Usage**

Add 1 part of the concentrated material as received to 1 part of water by volume. Remove heavy rust by wire brush and grease with a grease solvent before applying the compound.

Apply by spray, dip or flow-brush. Allow the conditioner to remain on the metal surfaces long enough so that the rust is loosened or dissolved and may be removed by rinsing with hot water. When the surface is dry, it may be coated, preserved with a corrosion preventative or put directly into service, as circumstances may indicate.

### **Safety**

RR-2360 contains acidic ingredients. Avoid contact with skin and eyes. In case of contact rinse thoroughly with plenty of water. Wear protective clothes when handling.

# **Packaging**

RR-2360 is available in 55 gallons drums.

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# **KEMCOT**

# **Description**

KEMCOT is a specially designed product in powder form used in order to achieve a chemical conversion coating on aluminum and its alloys. The coating has an iridescent to light yellow-brown color depending the alloy.

KEMCOT meets the requirements of MIL-C-81706 Type 1A.

# **Application**

KEMCOT is applied on aluminum surfaces and serves as a protective coating - temporary- against corrosion. The solution of KEMCOT acts also as a tie between the surface and the paint coatings.

# **Usage**

The chemical conversion coating on aluminum known as "alodine" is applied by spray, mop or immersion.

KEMCOT is used diluted in water in a proportion of 0,5 - 1 %.

The operating time is 30 seconds to 5 minutes depending on the aluminum alloy and the condition of the solution.

After treatment the parts must be rinsed twice. First in water at ambient temperature and then with deionized water at a temperature of 50°C. Then all parts must by dry in an oven (60°C max).

# **Product properties**

Appearance : Brown powder pH (1 % sol) : 1,5 - 2,1

# **Safety**

KEMCOT is caustic. Avoid contact with skin and eyes. Rinse with plenty of water in case of contact. Wear protective clothes when handling.

# **Packaging**

KEMCOT is available in plastic pails or plastic bags of 25 kg.

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# **KEM-KLEEN 41**

# **Description**

KEM-KLEEN 41 is a lightly alkaline product in powder form which meets the requirements of P-C-436 E.

# **Application**

KEM-KLEEN 41 removes oil, grease, light carbon deposits etc. from the components of reciprocating and "jet" engines of the aircrafts. It is safe on aluminum, ferrous, magnesium etc.

# **Usage**

KEM-KLEEN 41 is used by hydrosteam cleaning machines or by immersion. KEM-KLEEN 41 is diluted in water in a proportion of 5-6 %. For better cleaning results the solution must be operated at the boiling temperature. The cleaning time is approximately 15-30 minutes. A thorough rinsing with hot water removes all residues.

When KEM-KLEEN 41 is used by spraying, a previous dilution in the above proportions must be done using hot water.

In order to remove tenacious deposits it is recommended the addition of "Hexylene Glycol" solvent in a proportion of 1 part of solvent to 9 parts of KEM-KLEEN 41 5-6 % solution.

# **Product Properties**

pH (5 % sol): 12

Corrosiveness: Does not corrode metals.

# **Safety**

KEM-KLEEN 41 is no toxic. Regular safety precaution must be taken in order to avoid contact with skin and eyes (gloves, faceshields, etc.).

# **Packaging**

It is available in plastic pails of 50 kg.

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TECHNICAL OPERATIONS DEPT.

MATERIAL MANAGEMENT DIV.

ATHENS AIRPORT (WEST)

GR 16604 HELLINIKON

GREECE

Athens, 04.02.96

TO: EUROCHEM

Marine and industrial chemicals

RAPHAILIDOU 3

177 78 TAYROS

ATHENS - GREECE

To whom it may concern

OLYMPIC AIRWAYS states that since 1986 there is a satisfactory cooperation with EUROCHEM - marine and industrial chemicals - suppling us with all its products and especially with the following:

AC-55

KEM-SOLVE-1212,

PR-2025,

EC-201

KEM-SOLVE-2475,

RR-1122,

SARMOL 2070-NF,

SARMOL 4000,

HADISON.

A. DOUMAS

Manager Materials Management



# CERTIFICATE OF APPROVAL

This is to certify that:

M/s. Eurochem L.T.D Raphailidou 17778 Tayros Athens-Greece

has been approved as "Aircraft Cleaning Compound Suppliers", as per the terms and conditions laid down overleaf, under the Authority Reference:

# QAC/QA/APPR/002

This approval is valid until 15 February 1999, unless otherwise suspended, revoked or varied.



Authorisation

17-2-1997 Date of Issue



M/s. Eurochem L.T.D Raphailidou 17778 Tayros Athens-Greece

Ref.:

QAC/QAD/1702/YA02

Date:

17 February 1997

Subject:

Certificate of Approval

Please find attached the above noted certificate as an "Aircraft Cleaning Compound Suppliers" to Qatar Airways.

You are Kindly requested to acknowledge receipt of the same.

Hamad Dafa' Mohammad Manager, Quality Assurance

CC:

Sr. Manager, Technical Manager, Material



# DEPARTMENT OF THE NAVY

IN REPLY REFER TO

4123 Ser 434100A/7.4526 9 July 2001

Eurochem Ltd. Attn: Mr. N. Yiannoutsos 3 Rafailidou Str. 17778 Tavros, Athens, Greece

Dear Mr. Yiannoutsos:

Your product listed below has met the qualification requirements of MIL-PRF-85570C, Cleaning Compound, Aircraft, Exterior. Listing on the Qualified Product List (QPL) will appear as follows:

Government Designation	Manufacturer's Designation	Test or Qualification Reference	Manufacturer's Name and Address
Туре І	Kleenol 2000 PRO	This letter	Eurochem Ltd. 3 Rafailidou Str. 17778 Tavros Athens, Greece
			Plants Eurochem Ltd. 3 Rafailidou Str.

To ensure correct listing, please advise us within 14 days from the date of this letter of any discrepancy.

The following statements are binding upon the manufacturer per the Defense Standardization Manual 4120.3M:

17778 Tavros Athens, Greece

- a. This listing does not guarantee acceptance of the product in any future purchase.
- This listing does not constitute a waiver of any requirements of the specification or of the provisions of any contract.
- c. Any use of such listing for publicity, advertising, or sales shall not state or imply that the product is the only one of that type so qualified, or that the Government in any way recommends or endorses the manufacturer's product. Violation is cause for removal of the product from the list by the Government activity concerned.
- d. This listing applies only to products produced in the plants specified in this letter of notification and is effective at 8:00 am local time as of the date of this letter. If extension of qualification to any of your other plants is desired, please request such extension through this office.
- e. This listing applies to amendments or revisions of the specification unless otherwise notified.

- f. This listing applies only to products identical to that qualified. There shall be no change in formulation or manufacturing procedure unless the material is re-examined for compliance with the requirements of the specification by the qualifying activity. Failure to notify the qualifying activity of a change in formulation is cause for removal from the QPL. The manufacturer is cautioned not to change type or grade of ingredients because of possible change in performance characteristics.
- g. To retain this listing, manufacturers must comply with retention of qualification requirements. Failure to comply will be sufficient cause for removal from the QPL.

For further information, please contact Dr. El Sayed Arafat at (301)342-8054 or Ms. Dayle Dierks at (301) 342-8058.

Sincerely,

SURESH K. VERMA

Acting Head, Materials Protection Branch

Copy to:
DSCR (JDTA/Myers)
NAWCAD LAKEHURST (Code 4.1.4.2B120-3)
NADEP CHERRY POINT NC (Code 4.3.4)
NADEP NORTH ISLAND CA (Code 4.3.4)
NADEP JACKSONVILLE FL (Code 4.3.4)
NAWCWD CHINALAKE CA (Code 4B2)
AFRL/MLS-OLR (NCI)



### DEPARTMENT OF THE NAVY

NAVAL AIR WARFARE CENTER
AIRCRAFT DIVISION
WARMINSTER, PENNSYLVANIA 18974-5000

4123 Ser 6062/244 27 May 1993

Mr. Theodoros Panou Eurochem LTD 3, Rafailidou Str. 177 78 Tavros Athens, Greece

Dear Mr. Panou:

Your product, listed below, has met the qualification requirements of specification MIL-C-43616, Cleaning Compound, Aircraft Surface.

Listing on the Qualified Products List (QPL) will appear as follows:

Government Designation	Manufacturer's Designation	Test or Qualifi- cation Reference	Manufacturer's Name and Address
Class 1	EC-201	This letter	Eurochem LTD 3, Rafailidou Str. 177 78 Tavros
			Athens, Greece

Plant

Same as above

Your product, company name and address, as indicated above, will be listed on the next issue of the QPL for the specification. To insure correct listing, please advise us within ten days from the date of this letter of any discrepancy.

The following statements are binding upon the manufacturer per the Defense Standardization Manual 4120.3M:

- 1. This listing does not guarantee acceptance of the product in any future purchase.
- This listing does not constitute a waiver of any requirements of the specification or of the provisions of any contract.
- 3. Any use of such listing for publicity, advertising, or sales shall not state or imply that the product is the only product of that type so qualified, or that the Government in any way recommends or endorses the manufacturer's product. Violation is cause for removal of the product from the list by the Government activity concerned.

- 4. This listing applies only to products produced in the plants specified in this letter of notification and is effective at 8:00 a.m. local time as of the date of this letter. If extension of qualification to any of your other plants is desired, please request such extension through this office.
- 5. This listing applies to amendments or revisions of the specification unless otherwise notified.
- 6. This listing applies only to products identical to that qualified. There shall be no change in formulation or manufacturing procedure unless the material is re-examined for compliance with the requirements of the specification by the qualifying activity. Failure to notify the qualifying activity of a change in formulation is cause for removal from the QPL. The manufacturer is cautioned not to change type or grade of ingredients because of possible change in performance characteristics.
- 7. To retain this listing, manufacturers must comply with retention of qualification requirements. Failure to comply will be sufficient cause for removal from the QPL.

For further information, you may contact Mr. Walter Knight, at (215) 441-2189.

Sincerely,

I. S. SHAPFER

Superintendent, Aerospace Materials Division Air Vehicle and Crew Systems Technology Department By direction of the Commanding Officer

Copy to:
NAVAIR (AIR-5304D2)
NAVAIRWARCENACDIVLKE (SR 32)
DGSC, Richmond, VA 23297
GSA/FSS, Ft. Worth, TX 76102



# DEPARTMENT OF THE NAVY

NAVAL AIR SYSTEMS COMMAND RADM WILLIAM A. MOFFETT BUILDING 47123 BUSE ROAD, BLDG 2272 PATUXENT RIVER, MARYLAND 20670-1547

IN REPLY REFER TO

4120 Ser 434100A/7.4574 08 June 2004

Eurochem S.A. Attn: N. Yiannoutsos 3 Rafailidou Str., Tavros 177 78 Athens, Greece

Dear Mr. Yiannoutsos:

Your product CARB-OVER 154 has met the current qualification requirements of specification SAE-AMS-19853, Carbon Removing Compound (for Use in Agitated Tank). Listing on the Qualified Products List (QPL) will appear as indicated below.

Government Designation	Manufacturer's Designation	Test or Qualification Reference	Manufacturer's Name and Address
SAE-AMS-C-19853	CAR-OVER 154	This letter	Eurochem S.A. 3 Rafailidou Str., Tavros 177 78 Athens, Greece Plant:
			Same

Your product, company name and address, as indicated above, will be listed on the next issue of the QPL for the specification. To ensure correct listing, please advise us within 14 days from the date of this letter of any discrepancy.

The following conditions are binding upon the manufacturer per the DoD 4120.24-M, Defense Standardization Program (DSP) Policies and Procedures:

- a. Such listing does not guarantee acceptance of the product in any future purchase.
- Such listing does not constitute a waiver of any requirements of the specification or of the provisions of any contract.
- c. Any use of such listing for publicity, advertising, or sales shall not state or imply that the product is the only one of that type so qualified, or that the Government in any way recommends or endorses the manufacturer's product in preference to other qualified products. Violation is cause for removal of the product from the list by the Qualifying Activity.
- d. This listing applies only to products produced in the plant(s) specified in this letter of notification and is effective at 8:00 a.m. (local time of the Qualifying Activity) as of the date of this letter. If extension of qualification to any of your other plants is desired, please request such extension through this office.
- e. Such listing applies to amendments or revisions of the specification, unless otherwise notified.

- f. Such listing applies only to products identical to that qualified. The Qualifying Activity must be advised in advance of any intended change to the product and must be provided with a complete description of the change. Failure to notify the Qualifying Activity of any change is cause for removal from the listing regardless of the extent of the change.
- g. Manufacturers must comply with retention of qualification to retain the listing. Failure to comply will be sufficient cause for removal from the listing.

For further information, you may contact Ms. Dayle Dierks at (301) 342-8058.

Sincerely,

STEPHEN J. SPADAEORA
Head Materials Protection Branch

Copy to:
DSCR (JDTA/Myers)
NAWCAD LAKEHURST (Code 4.1.4.2 B120-3)
NADEP CHERRY POINT NC (Code 4.3.4)
NADEP NORTH ISLAND CA (Code 4.3.4)
NADEP JACKSONVILLE FL (Code 4.3.4)
NAWCWD CHINALAKE CA (Code 4.7.6.5)
AFRL/MLS-OLR (NCI)



### DEPARTMENT OF THE ARMY

U.S. ARMY RESEARCH, DEVELOPMENT, AND ENGINEERING COMMAND 6501 E. ELEVEN MILE ROAD WARREN, MICHIGAN 48397-5000

REPLY TO ATTENTION OF

June 16, 2016

Fuels and Lubricants Technology Team

Mr. N. Yiannoutsos EUROCHEM S.A. 4 Rafaildou Street Tavros 17778 Athens Greece

Dear Mr. Yiannoutsos:

It is advised that your product:

Manufacturer's Designation: Solvent-680 Type II

Qualification Number: DS-0016 Expiration Date: June 16, 2021

Specification: MIL-PRF-680C, Type II

has been re-tested in accordance with the above specification. Results of the tests showed that the material complied with the requirements of the specification. Accordingly, this product is approved for inclusion in the Qualified Products Database (QPD) 680. There shall be no change in formulation or manufacturing procedure unless the material is re-examined for compliance with the requirements of the specification by the qualifying agency. The manufacturer is cautioned not to change type of ingredients because of possible change in the performance characteristics.

This notice of qualification and listing in the Qualified Products List does not guarantee acceptance of the product in any future purchase nor constitute a waiver of the requirements established by the Defense Standardization policies, procedures, and instructions.

Sincerely,

Dr. In-Sik Rhee

Fuels and Lubricants Technology Team

TARDEC Petroleum and Water Business Area

# PSDS GENERATED \*\*\*\*\*\*

PROCESS SPECIFICATION	ORIG D. L. Thomas	PSD NUMBER	PROCESS SPEC NO.  BAC5749		
DEPARTURE X OPTION	SUPV T. A. Richardson	PAGE 1 of 1	BAC/49		
REQUIREMENT	MFG T. M. Hutchinson	CESS SPEC TITLE			
COMMITTED CHANGE	QUAL G. E. Delong	ALKALINE CLEANING			
REASON:	MAT'L T. M. Hutchinson		4		
Allow Hellenic Aerospace to use existing facilities	CUST. APPROVAL ENGR APPROVAL B. W. S	Smith	23-JUL-1997 REL'S DATE		
SUBCONTRACTOR(S) AFFECTED Hellenic Aerospace	ON MODELS 757	2 (1 5)	OF DIV BELOW AFFECTED ND SUPPORTING		
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# 5 MATERIALS CONTROL

5.4 IMMERSION CLEANERS - LIGHT DUTY SOAK

1 3 IAN. 1993

Add the following Item:

x. Kem Kleen 41, Eurochem.

5.6 SPRAY CLEANERS - LIGHT DUTY

Add the following Item:

x. Kem Kleen 41, Eurochem.

MANUFACTURING CONTROL

8.2 ALKALINE CLEANING

Add the following Items to Table I:

# E.A.B. TEXNIKH EIBAICGHULA AVIITUTIO NO. 10 Napakaßr 1 4 AEK. 1998

# TABLE 1 SELECTION AND CONTROL OF CLEANERS

SECTION	CLEANER	CONC	TEMP	MAKEUP		MET	AL TO E	BE CLE	ANED		REMARKS
NUMBER		OZ/GAL	DEG F	SECTION	Fe	Al	Ti	Mg	FL1	FL2	
		- IMME	ERSION CL	EANERS-L	GHT D	UTY S	OAK	1100			
5.4x.	Kem Kleen 41	6-8	Boiling	9.2	-	×	-	-	-	-	-
	Market School Heaven School 1970		SPRAY C	LEANERS - I	JGHT D	YTUC					
5.6x,	Kem Kleen 41	6-8	Boiling_	9,2	_=	X	T	T -	-	-	-

- FL 1 Beryllium copper, cadmium, copper, lead, silver, solder, tin, zinc
- FL2 Chromium, cobalt, gold, molybdenum, nickel, stainless steel

STATES OF THE STATES

ΠΡΟΣ: EUROCHEM S.A

(Ραφαηλίδου 4, 177 78, Αθήνα

тла. 210 4836321-7)

ΚΟΙΝ: ΓΔΑΕΕ/ΔΑΩ&ΔΠ/ΤΜ.ΚΩΔ/ΣΗΣ

ΥΠΟΥΡΓΕΙΟ ΕΘΝΙΚΗΣ ΑΜΎΝΑΣ ΓΕΝΙΚΗ ΔΙΕΥΘΎΝΣΗ ΑΜΎΝΤΙΚΩΝ ΕΞΟΠΛΙΣΜΩΝ & ΕΠΕΝΔΎΣΕΩΝ ΔΙΕΥΘΎΝΣΗ ΑΝΤΙΣΤΑΘΜΙΣΤΙΚΩΝ ΩΦΕΛΗΜΑΤΩΝ & ΔΙΑΣΦΑΛΙΣΗΣ

ΠΟΙΟΤΗΤΑΣ

ΤΜΗΜΑ ΚΩΔΙΚΟΠΟΙΗΣΗΣ

Τηλ.: 7466281 Φ.081.1/134/71998

Σ. 5622

Αθήνα, 23 Δεκ. 2009

ΘΕΜΑ: Κωδικός κατά NATO Κατασκευαστή (NCAGE)

ΣΧΕΤ. : Η από 21 Δεκ. 2009 επιστολή της εταιρείας EUROCHEM S.A.

Σας πληροφορούμε σε απάντηση σχετικού, ότι σύμφωνα με τα τηρούμενα στοιχεία στην Βάση Δεδομένων του Τμήματος Κωδικοποίησης, έχει αποδοθεί στην εταιρεία σας ο Κωδικός Κατασκευαστή κατά NATO G1673.

Νικόλαος Γανώσης Αναπληρωτής Γενικός Διευθυντής

ΑΚΡΙβές Αντίγραφο

Ε Μ.Χ. Β΄ Χαρ. Κωστόπουλος
ΑΑΩΔΠ/ΤΚΩΔ/ΓΠΚΝ

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**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