A BRAND OF THE ORAPI GROUP®

GRAMOS® PRODUCT GUIDE

DUST CONTROL

WATER TREATMENTS

PROTECTIVE COATINGS



GRAMOS®

METAL PRE-TREATMENT

PAINT REMOVAL



GRAMOS®

PRODUCT GUIDE

SURFACE CLEANING



HANDCARE

WHO WE ARE



Orapi Group

Founded in 1968, the Orapi group has since embarked on a remarkable industrial journey. Our four Research and Development Centres and seven Production Facilities around the world have enabled us to remain at the forefront of industrial advances and ensure that our customers always benefit from the latest technological breakthroughs.

Over the years, the Orapi Group has grown in harmony with its customers and has devoted itself to providing the highest levels of service and quality.

Having acquired the GRAMOS® brand in 2007, Orapi Applied Ltd. have become a key player in the market sector of Paint Shop Processes, offering a full range of specialist chemical solutions and dust control products to assist in the achievement of the optimal paint finish so often required by automotive OEM's such as VW, Audi, BMW, Jaguar Landrover, Aston Martin, Fiat, Iveco, Toyota, Volvo, JCB and many more all over the world.

Our products are also extensively used in other Industrial Manufacturing sectors such as the Wind Turbine Industry, Kitchen and Furniture manufacturing, etc where high quality paint finishes are a critical requirement.

Our continued development of new products will ensure that we can continue to deliver new innovations to all these markets.

GRAMOS®

CONTENTS



page
04 I 09

DUST CONTROL



page
10 I 15

WATER TREATMENT

PROTECTIVE COATINGS

page
16 I 20



SURFACE CLEANING

page
21 I 23





page
24 I 30

METAL PRE-TREATMENT



page
31 I 32

PAINT REMOVAL

HANDCARE

page
33 I 35



ORAPI INTERNATIONAL

page
36 I 37





DUST CONTROL

1 Dust What is it?

Dust found within manufacturing processes have been known to contain small amounts of plant pollen, human and animal hairs, textile fibres, paper fibres, minerals from outdoor soil, human skin cells and many other materials which may be found in the local environment.

2 Why control it?

Dust, fibres and grit particles are a major source of paint defects causing nibs, rough finishes, imperfections and centres of weakness and corrosion.







3

Regain control!

Manufacturing in the UK GRAMOS® originally designed TAK®rags over 50 years ago, still providing unrivalled design quality today Orapi Applied Ltd is the leading manufacturer of GRAMOS® TAK®rags and dust contamination control products in Europe. Each day most car manufacturers and leading assembly plants throughout the world rely on GRAMOS® products and our leading technical knowledge.

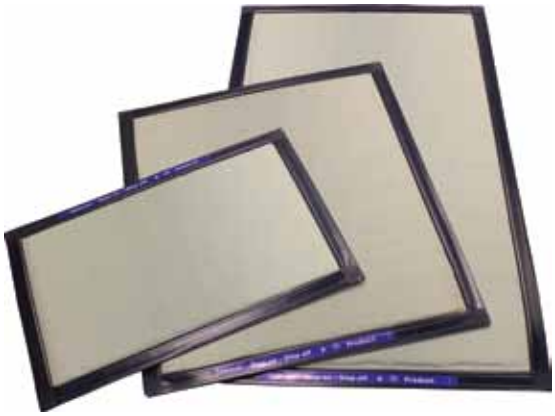
Long experience has shown that TAK®rags are the only safe and economical method of ensuring completely dust-free surfaces onto which paint can be applied.

As well as being indispensable in vehicle body shops and paint shops TAK®rags have many beneficial applications in most industrial production finishing processes. With a multitude of woven, non-woven and knitted materials and a choice of tack strength, GRAMOS® have a TAK®rag to suit all applications.

With one quick wipe, TAK®rags ensure completely dust and fibre free surfaces. A surface ready for spraying, lettering and countless other jobs involving the application of paints, printing inks, lacquers, varnishes etc.

The impregnated resins that make TAK®rags tacky are manufactured solely by us for our own use. They are to our own formula and are chemically compatible with all modern paint finishes, non-acidic, non-drying, non-staining, not subject to spontaneous combustion and uniform in tack and quality.

This GRAMOS® quality continues within our range of TAK®mats to control foot-borne contamination from entering or leaving protected zones and Barrier Curtain to control airborne dust within high risk areas.





DUST CONTROL

WOVEN COTTON **TAK®rags**

THE ORIGINAL TAK®rag

MEDIUM TACK

The original TAK®rag is a general purpose TAK®rag used in any area for the removal of dust contamination. Different sizes and packaging are available to suit the individual and bulk user needs. Also available are larger sizes for maximum area coverage. The original TAK®rag is an ideal tool in the fight against contamination.

1 x 100	D3006-1X100	a roll
4 x 50	D3009-4X50	bulk pack
10 x 50	D3009-10X50	bulk pack
100 x 1	D3019-100X1	bleached individually wrapped
10 x 50	D3020-10X50	bleached bulk pack
20 x 10	D3023-20X10	individually wrapped
50 x 1	D3023-50X1	individually wrapped with dispenser
100 x 1	D3023-100X1	individually wrapped
20 x 10	D3023-20X10C	clamshell

THE ORIGINAL TAK®rag LIGHT

LIGHT TACK

The original general purpose TAK®rag with a lighter resin content, used in any area for the removal of dust contamination. Different sizes and packaging are available to suit the individual and bulk user needs. Also available are larger sizes for maximum area coverage. The original TAK®rag is an ideal tool in the fight against contamination.

20 x 10	D3017-20X10	individually wrapped
10 x 50	D3017-10X50	bulk pack
20 x 10	D3017-20X10C	clamshell
50 x 1	D3017-50X1	individually wrapped with dispenser

maxaTAK®

MEDIUM TACK, TEXTURED COTTON

This is a large TAK®rag with superior dust holding capacity. It is made from textured cotton, which gives it its soft, high bulk nature. Ideal for large surface areas or high levels of dust.

25 x 1	D3033-25X1	individually wrapped
2 x 50	D3002-2X50	bulk pack



NON WOVEN **TAK®rags**

aquaTAK®

LIGHT-MEDIUM TACK

aquaTAK® is made from a blue non-woven fabric which gives it a high snag resistant quality. Ideal for uneven surfaces and developed for use with water-based paint systems.

10 x 50	D3042-10X50	bulk pack
20 x 10	D3042-20X10	clamshell
10 x 50	D3032-10X50	bulk pack light tak

ultraTAK®

LIGHT-MEDIUM TACK

UltraTAK® is made from a ultra soft white non-woven fabric which gives it a high snag resistant quality. Ideal for uneven surfaces and developed for use with water-based paint systems.

10 x 50	D3055-10X50	bulk pack
1000 x 1	D3055-1000X1	individually wrapped
50 x 1	D3055-50X1	supplied with dispenser

KNITTED POLYESTER **TAK®rags**

autoTAK®

LIGHT TACK

This non linting, honeycomb fabric design TAK®rag finds particular use in the paint finishing of motor vehicles. Tests have shown that dirt and fibre counts at the end of the paint finishing line can be reduced up to two thirds with great impact on costs.

10 x 50	D3035R-10X50	bulk pack

puraTAK®

MEDIUM TACK

puraTAK® is a premium quality, resin impregnated textile cleaning wipe. Based on a specially selected, white high quality / high strength, extremely low linting continuous filament box knit polyester substrate. Specifically designed to remove and collect dust, dirt, fibres, hair etc from prepared surfaces prior to finishing, painting or enhancement. The product is impregnated to the optimum weight ratio with a unique resin system to provide the ultimate in contaminant collection and retention performance.

10 x 50	D3047-10X50	bulk pack

kleenTAK®

MEDIUM TACK

kleenTAK® is a high quality resin impregnated textile cleaning wipe. Based on a specially selected, white high quality / high strength, extremely low linting continuous filament box knit polyester substrate. Specifically designed to remove and collect dust, dirt, fibres, hair etc from prepared surfaces prior to finishing, painting or enhancement. The product is impregnated to the optimum weight ratio with a unique resin system to provide extremely high absorbency and contaminant retention.

10 x 50	D3057-10X50	bulk pack



TAK®mats

SDA TAK®mats

SUPER DUST ABSORBANT

Super Dust Absorbent TAK®mats have 36 resin impregnated cotton covers enclosed in a heavy duty plastic frame with a super dust absorbent cushion foam interior. Top layer can be removed when soiled, to reveal a clean layer.

61 x 91cm	D3305-2X1	2 Mats (SDA3)
104 x 91cm	D3304-2X1	2 Mats (SDA2)
152 x 91cm	D3303-1	1 Mat (SDA1)

LP TAK®mats

LOW PROFILE

Low Profile TAK®mats these mats have 30 positive adhesive plastic layers and are only 2mm thick. They can be supplied in white or blue. These layers are peeled away once soiled to reveal a fresh layer.

115 x 45cm	D3306-4X1	4 Mats (White)
115 x 45cm	D3307-4X1	4 Mats (Blue)

BARRIER **CURTAINS**



BARRIER CURTAIN

HIGH TACK COTTON, FLAME RETARDANT

Barrier Curtain is an excellent material for filtering air and effectively removes unwanted contamination such as lint, dust and other fibrous particles.

86cm x 50m	D3080-1X50	50m roll
86cm x 35m	D3081-35	35cm roll with release paper

DRY **WIPES**

SEALANT WIPE

HIGH STRENGTH, LOW LINT

Sealant Wipe is based on a specially selected high strength low lint non-woven fabric that meets the requirements of products used for cleaning in 'critical' areas. The product can be used dry as supplied or in conjunction with liquid cleaning agents to remove industrial sealants from application equipment, nozzles or finished components.

10 x 50	D3120-10X50	bulk pack

LOW LINT WIPE

LOW LINT

Low Lint Wipe is an extremely low lint cleaning wipe based on a specially selected white, high quality / high strength continuous filament honeycomb knit polyester substrate. The product will not suffer from massive "fibre shed" when abraded or snagged as can normally be associated with other cleaning wipe substrates.

10 x 50	D3112-10X50	bulk pack

SOLVENT WIPE

HIGHLY ABSORBENT

This is a green non woven strong, highly absorbent wipe compatible with commonly used solvents used in the preparation of surfaces. It will not scratch or mark and has a long life due to its strong construction.

10 x 50	D3113-10X50	bulk pack



KLEENKNIT TUBE WIPES

PREMIER LINT FREE

Absorbent tube wiper is the proven premier lint free wiping cloth for automotive paint applications. Made of 100% first quality, continuous filament polyester. The absorbent tube wiper is more durable than other substrates and prevents "shedding" when snagged or caught on an irregular surface. Due to our vertical manufacturing system and strict quality assurance requirements Kleenknit sets the benchmark for quality. Superior absorbent capabilities allow for use with all sealer and solvent types.

12" Diameter	D3150-1X1000	1000 Wipes (150 Denier)
18" Diameter	D3155-1X500	500 Wipes (150 Denier)

KLEENKNIT ROBOT COVERS

LINT FREE

Kleenknit Robot Covers are made of 100% first quality, continuous filament polyester. The tubular design provides a protective covering for sealer area hoses and robotic machinery. The Kleenknit Robot Cover is lint free and contains no crater causing agents.

30"	S9051-1X1	100m roll
8"	S9053-1X1	77.5m roll

IMPREGNATED **WIPES**

ANTI-STATIC DUSTER

ANTI-STATIC

The antistatic duster is an orange, open weave cotton/rayon cloth with overlocked stitched edges. It is impregnated with an anti-static enhancer to give excellent removal and retention of static, dust and dirt.

61 x 21cm	D3101-10X10	bulk pack

ADCLENS ANTI-STATIC DUSTER

ANTI-STATIC

This is a top quality ultra soft, yellow knitted cotton fabric with overlocked edges to eliminate fibres. It also contains an anti-static impregnant to eliminate static build up on plastic surfaces and help prevent the generation of static charges on most non-conductive surfaces. It can be used on the most delicate of items.

33 x 38cm	D3102-10X10	bulk pack

DG WIPES

LOW V.O.C, DEGREASING WIPES

Low lint, low VOC aqueous degreasing wipes for all degreasing applications. Resealable packs, high quality fabric.

10 x 25	D3084-10X25	bulk pack

MICROWIPE AS

ULTRA LOW V.O.C

Lint free non-woven microfibre fabric impregnated with a fast evaporating, anti static, ultra-low VOC level degreasing liquid. Ideal for cleaning and surface preparation of both metals and plastics prior to secondary operations. Available with standard and light impregnation levels.

10 x 25	D3086F-1X10X25	bulk pack (standard)
10 x 25	D3087-1X10X25	bulk pack (light)



WATER TREATMENT

1 Applying surface finishes

Applying surface finishes is a messy business.
Lacquers, paints, enamels and adhesives will by their very nature create soil and contamination, readily attaching to the fabric of the paint shop. Our experience shows that properly maintained spray booths will considerably reduce lost time procedures and improve booth efficiency leading to increased productivity.

2 Containing overspray

How do you contain overspray?
Adding a solution from the **TAK®kill Denaturant** range to your spray booth water system rapidly "de-tackifies" the paint overspray ensuring that it is denatured to the required degree and is floated or sunk for removal according to the design features of the booth.

3 Benefits

Benefits of GRAMOS® Denaturants and Additive products

- Increase booth efficiency by reducing down time
- Stops paint re-depositing within the booth
- Prevents sticky blockage of pumps and nozzles
- Removal of overspray solids made easier
- Biocide's prevent odour causing bacteria
- Health and Safety conformance
- Reduce disposal costs
- Less frequent clean out / sludge disposal









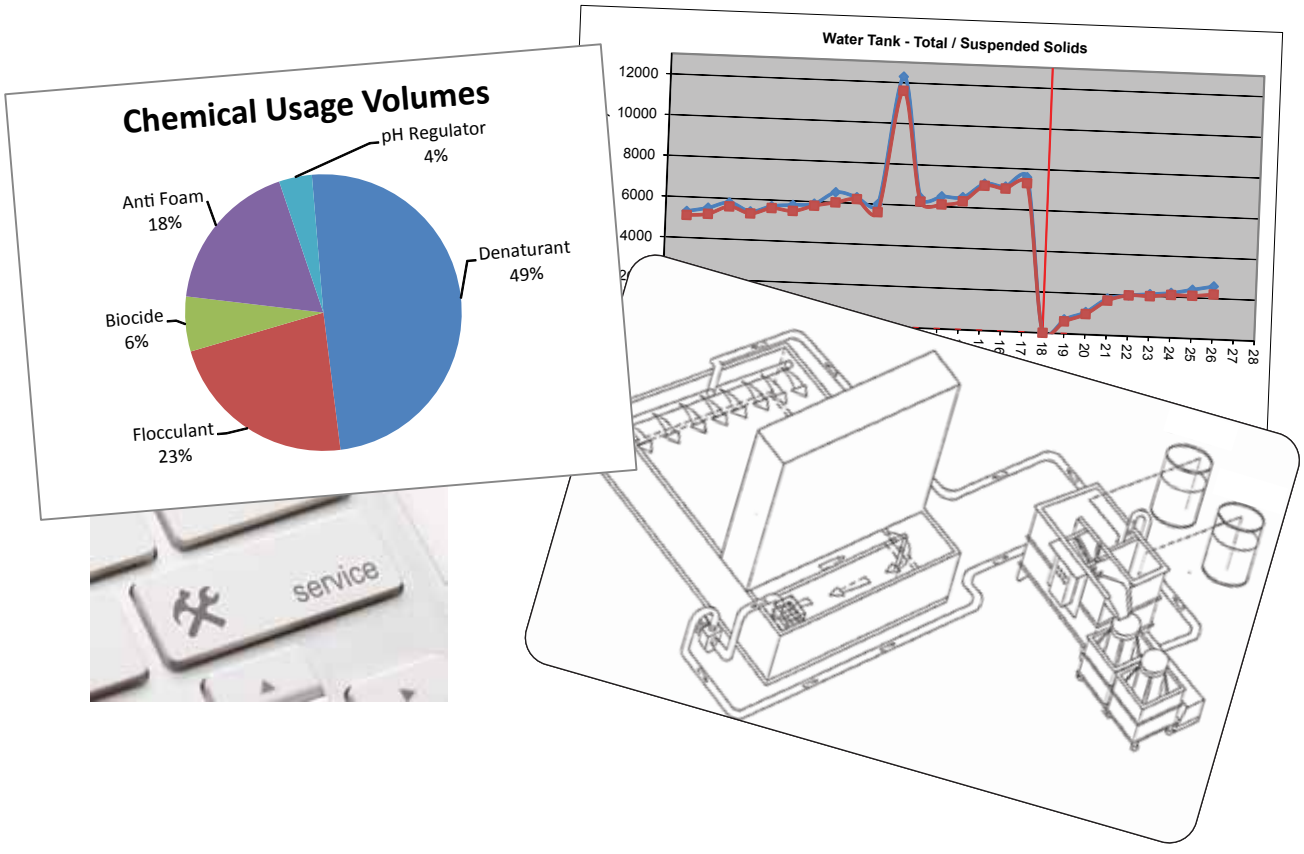
4 Technical solutions

Customised technical solutions

Industrial paint shops across Europe, from automotive O.E.M.'s to furniture manufacture rely on the support provided by the GRAMOS® Technical Team. Let us take the down time cost and hard work out of spray booth maintenance for you allowing you to concentrate on production.

Benefits of the Tech Team include:

- Bespoke dosing solutions, supply and installation
- Instrumentation and control panels
- Sales support
- Engineer site service
- Wall charts
- Staff training
- Full I.T. support including booth performance analysis data
- Water sample analysis
- Sales administration support, stock control, logistics
(above is subject to agreement)



TAK®kill DENATURANTS



TAK®kill DENATURANT MS

B4711

MEDIUM SOLIDS

TAK®kill Denaturant MS is a colourless liquid based on a mixture of caustic and non-caustic alkalis formulated as an additive for spray booth water treatment. As the product is liquid the disadvantages associated with dissolving powder alternatives are eliminated.

TAK®kill Denaturant MS is suitable for use in many different spray booth designs. It will rapidly denature a considerable range of different paint types, dependant on booth design the paint residue will float or sink in an easily removable form with minimal adhesion of paint residues to working surfaces.

Paint Type:
Medium Solids. Stoving Alkyds. Acrylics

Initial Concentration as % of Volume:
1%

25L	B4711-25	Drum

TAK®kill DENATURANT HS

C4700

HIGH SOLIDS

In keeping with our policy of continued improvement and research, Orapi Applied have developed a paint denaturant based on organic components which result in a formulation as environmentally acceptable as it is effective. The product is also relatively safe to handle as it contains NO CAUSTIC ALKALIS.

The TAK®kill HS system consists of one liquid component plus a regulator B5820 Alkaline pH Regulator which are dosed into the water system of the spray booths. The condition of the paint solids are completely denatured, with no residual tackiness or tendency to stick to surfaces with which they come into contact.

Paint Type:
High Solids. Polyester Primer. Plus some water-borne in the same booth

Initial Concentration as % of Volume:
1%

25L	C4700-25	Drum
205L	C4700-205	Barrel

TAK®kill DENATURANT WB

D4714

WATER BORNE

TAK®kill Denaturant WB is a liquid preparation consisting of a solution of alkalis formulated for use as an additive for spray booth water treatment. As TAK®kill Denaturant WB is a liquid the disadvantages associated with dissolving powder alternatives are eliminated.

TAK®kill Denaturant WB has been developed for the treatment of over-spray paint in paint spray booths, particularly of the conventional pump type. Reaction between the over-spray paint and the TAK®kill Denaturant WB solution in the spray booth ensures that washing chambers, plates and pipe work of the spray booth require less frequent cleaning and the treated paint will float in a conventional denatured non-sticky form for easy removal.

Paint Type:
Water Borne. 2 Pack Plus Some Solvent borne in the same booth

Initial Concentration as % of Volume:
1%

25L	D4714-25	Drum
205L	D4714-205	Barrel

TAK®kill DENATURANT GP

B4712

GENERAL PURPOSE

TAK®kill Denaturant GP is a liquid preparation consisting of a solution of alkalis, formulated for use as an additive for spray booth water treatment. Due to the fact that TAK®kill Denaturant GP is a liquid, the disadvantages associated with dissolving powder alternatives are eliminated.

TAK®kill Denaturant GP has been designed for the treatment of over-spray paint in paint spray booths, particularly of the conventional pump type. Reaction between the over-spray paint and the TAK®kill Denaturant GP solution in the spray booth will mean less frequent cleaning and the treated paint will float in a convenient denatured non-sticky form for easy removal.

Paint Type:
General Purpose

Initial Concentration as % of Volume:
1%

25L	B4712-25	Drum

TAK®kill **DENATURANTS**



TAK®kill DENATURANT FM

D4704

LACQUERS

Neutral spray booth additive TAK®kill Denaturant FM has been developed for the treatment of paint over-spray especially in pumpless spray booths. TAK®kill Denaturant FM is neutral in reaction and is able to denature paints that are largely unaffected by alkaline additives.

TAK®kill Denaturant FM is supplied as a viscous liquid and finds application in the wood finishing industry.

Paint Type: **Water and Solvent borne stains and lacquers**

Initial Concentration as % of Volume: **1%**

25L	D4704-25	Drum

POLYELECTROLYTES

TAK®kill ADDITIVE P.E.L.

D4702

POLYELECTROLYTE (RED)

TAK®kill Additive P.E.L. is a high-viscosity, milky-white liquid, developed in line with our continued policy of research and improvement, to offer polymer technology which aids separation of solids from water systems such as paint spray booths. The flocculants and coagulating agent allows the solids to separate from the water and be removed in whatever means has been designed such as flotation and skimming systems or settlement tanks. This helps save time and money on disposal of waste. The TAK®kill P.E.L. is normally used in conjunction with other TAK®kill Denaturant products which remove the tackiness of the resins prior to separation and removal.

Dose rate highly dependant on paint type and water system design.

25L	D4702-25	Drum

TAK®kill ADDITIVE P.E.L./HS

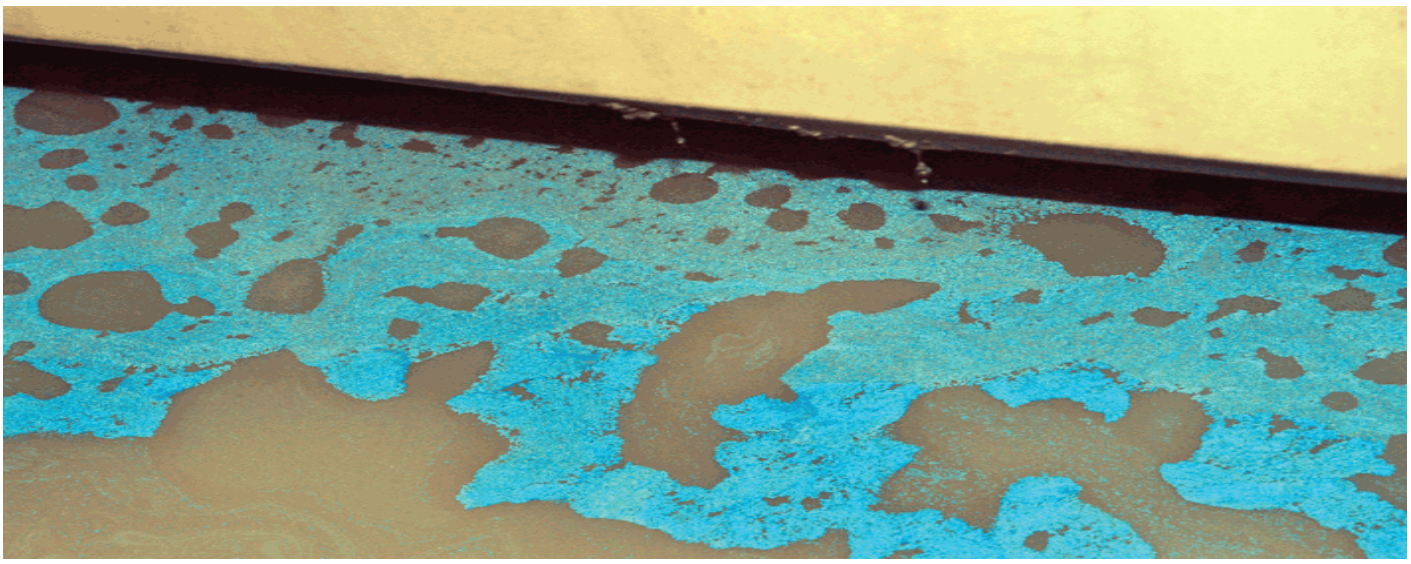
D4705

HS POLYELECTROLYTE (BLUE)

TAK®kill Additive P.E.L./HS is a slightly viscous clear liquid, developed in line with our continued policy of research and improvement, to offer polymer technology which aids separation of solids from water systems such as paint spray booths. The flocculants and coagulating agent allows the solids to separate from the water and be removed in whatever means has been designed such as flotation and skimming systems. This helps save time and money on disposal of waste. The TAK®kill P.E.L./ HS is normally used in conjunction with other TAK®kill Denaturant products which remove the tackiness of the resins prior to separation and removal – Particularly with TAK®kill HS Ref:C4700.

Dose rate highly dependant on paint type and water system design.

25L	D4705-25	Drum
205L	D4705-205	Barrel



TAK®kill ADDITIVES

TAK®kill AF — D8805

ANTI-FOAM

TAK®kill AF is a creamy emulsion blend of complex anti-foam agents in a highly refined mineral oil.

This silicone-free, highly efficient, foam-control agent is particularly suitable for use in the water of paint spray booths. It is especially effective in reducing foam created by over-spray of water-borne paints into the booth's water recirculation systems. It can also be used with solvent based paints being denatured in high pH alkaline water treatment solutions.

Dose in small amounts to dissipate foam as required

20KG	D8805-20	Drum

TAK®kill ADDITIVE BC1 — C8705B

BACTERICIDE

TAK®kill Additive BC is a red-brown liquid particularly suitable for the elimination of offensive odours caused by bacteria in the water of water-wash paint spray booths. It must be used in conjunction with the normal spray booth compounds used to denature the paint.

Initial Concentration as % of Volume: **0.01% - 0.1%**

5L	C8705B-5	Container

TAK®kill pH REGULATOR — B5820

pH REGULATOR

TAK®kill pH Regulator is an alkaline based additive designed to maintain paint booth water within pH range 8-10 where acidic water is encountered. Maintaining the water within pH range 8-10 will protect the booth structure against corrosive attack and aid separation / floatation of paint solids from the water.

Dose in small amounts until the required pH is achieved

25L	B5820-25	Drum

TAK®kill ABC CLEANER — F8707A

BIOCIDAL CLEANER

Biocidal cleaner used in spray booths to disinfect prior to cleandown and replenish.

Initial Concentration as % of Volume: **1%**

4 x 5L	F8707A-4X5	Container



TAK®kill ADDITIVE MA — A5629

SPRAY BOOTH WATER TREATMENT

TAK®kill Additive MA is a dispersion of antifoam in a mineral oil, used in a spray booth to aid the denaturing process. It has been designed as an additive to the water of spray booths, and is to be used as an addition to the spray booth denaturant to enable more effective paint denaturing to help control foam and bacterial activity.
TAK®kill Additive MA forms a film on the surface of the liquid in the water tank of the booth which prevents the particles of paint clogging and exposes the total surface area of the paint particle to attack by the paint denaturant.

Initial Concentration as % of volume: **0.1%**

25L	A5629-25	Drum

EQUIPMENT



DOSING PUMP

AUTOMATIC DOSING

We can advise on automatic dosing equipment.

SPILL TRAYS

BUNDED CONTAINMENT

We can advise on various containment systems to ensure that any accidental product spillages are suitable contained. Sizes will vary depending on the size and number of Dosing Tanks being installed to ensure that there is suitable capacity within the spill tray.

PLASTIC DOSING TANK

PRODUCT STORAGE

We can advise on various storage tank options for the storage of our products. The storage tanks can be fitted with the dosing pumps or the dosing pumps can be positioned away from the storage tanks. The size of the storage tanks will vary depending on the product usage and any space constraints that are in effect at the site and position of the dosing equipment.





PROTECTIVE COATINGS

Paint spray booths should ideally be kept in a clean and bright condition, unfortunately maintaining your booth in premium condition is difficult within a modern spray shop. Repeated overspray of often multiple paint types and colours, airborne dust and general grime collect on all surfaces. Removal of this contamination is labour intense and time consuming, alternatively neglecting the booth will cause an increase in rejects and rework as dust and particulate attach to your work piece.

Do you want to keep your spray booth in optimum condition without the workload?

Orapi Applied Ltd manufacture a market leading range of protective coatings to help you take control of booth maintenance. Easy to apply, simple to remove, faster clean downs and increased protection.

1 Peelable Coatings

Protective coatings for booth walls, floors and light systems, products to suit all surfaces and applications. Solvent based for fast curing or water based for sensitive applications. Applying by spray, brush or roller the products dry to a semi-permanent smooth bright film enhancing the condition of the spray booth, when it is time to remove simply peel from the surface, dispose and re-apply a fresh coating. Peelable coatings are also suitable for temporary surface protection within multiple manufacturing processes, protecting finished surfaces during handling, storage and delivery. Also ideal within construction industry, GRAMOS® coatings will protect against abrasion, impact, corrosion, paint, resins and bitumen.



2 Tacky Surface Coatings

Tacky coatings are a water based solution for airborne dust within painting and process applications, once applied the film does not completely dry and remains tacky to the touch. Airborne dust is attracted to the coating and is contained on the surface greatly assisting in keeping the area free from airborne contamination. Available in liquid, gel and paste formats with solutions for heavy duty and high temperature applications. Tacky coatings are easily washed off with water.

3 Barrier Surface Coatings

Protective barrier coatings that dry to semi-permanent film, applied by spray, brush or roller these coatings are water soluble or removed with an alkaline detergent solution. Whilst suitable for booth walls this range of products are especially advisable for areas where a peelable product is not recommended like booth floor plates and other intricate surfaces.

SOLVENT BASED **PEELABLE COATINGS**

PROPEEL

G4602

STANDARD

Propeel is a white, light-reflective, solvent-based temporary coating designed for application to all smooth, clean metal spray booth walls in order to provide an easy method of maintenance. Resistant to solvents once dry. The dried film collects paint over-spray and is readily peelable to enable even heavy over-spray deposits to be quickly and cleanly removed.

Colour: **White**

Application: **Spray, Brush, Lambswool or Mohair Roller**

Drying Time: **30-40 mins**

Coverage: **2-3 sq. m per litre**

Life: **Max 3 months**

4 x 5L	G4602-4X5	Container
25L	G4602-25	Drum

PROPEEL HS

G4603

HEAT-STABILISED

Propeel HS is a white, heat-stabilised, solvent-based temporary protective coating designed for application to all smooth metal spray booth walls in order to provide an easy method of maintenance. It can withstand exposure to temperatures up to 83 deg C. Resistant to solvents once dry. The dried film collects paint over-spray and is then readily peelable to enable even heavy over-spray deposits to be quickly and easily removed.

Colour: **White**

Application: **Spray, Brush, Lambswool or Mohair Roller**

Drying Time: **30-40 mins**

Coverage: **2-3 sq. m per litre**

Life: **Max 3 months**

4 x 5L	G4603-4X5	Container
25L	G4603-25	Drum

PROPEEL HD

G4600

HEAVY DUTY

Propeel HD is a heavy-duty, viscous liquid which dries to leave an off-white, tough, peelable film. It offers a simple yet effective method of maintaining and protecting non-solvent-sensitive floors and other surfaces from abrasion, paints, oils, resins, and dilute acids and alkalis. Applied correctly this peelable protector will even withstand forklift trucks.

Colour: **Off-White**

Application: **Spray, Brush, Lambswool or Mohair Roller**

Drying Time: **24 hrs with good extraction**

Coverage: **1 sq. m per litre**

Life: **Max 6 months**

25L	G4600-25	Drum

PROPEEL OP

G4610

OPAQUE

Propeel OP is an opaque finish peelable coating designed to protect components and finished articles during handling, manufacture, assembly, storage and delivery. It can be used on all smooth ferrous metals, plain aluminium, vitreous enamels, ceramics, glass and other non-solvent-sensitive surfaces. It will protect against abrasion, impact damage, welding spatter, rusting, corrosion, chemical attack, paint resins and bitumen.

Colour: **Opaque**

Application: **Spray, Brush, Lambswool or Mohair Roller**

Drying Time: **24 hrs with good extraction**

Coverage: **1 sq. m per litre**

Life: **Outdoor max 3 months protect from UV light, Indoors max 6 months**

25L	G4610-25	Drum



PROPEEL CL

G4604

SEMI-CLEAR

Propeel CL is a solvent-based, semi-clear, temporary, protective coating designed for application to glass, light fittings and other surfaces that require good visibility. Resistant to solvents once dry. This peelable provides an easy method of maintenance as the dried film collects paint over-spray and is then readily peelable enabling over-spray deposits to be quickly and cleanly removed.

Colour: **Semi-Clear**

Application: **Spray**

Drying Time: **30-40mins**

Coverage: **2-3 sq. m per litre**

Life: **Remove as required**

25L	G4604-25	Drum

Note : Test Compatibility with painted, coated and plastic surfaces before use.

WATER BASED **PEELABLE COATINGS**

AQUAPEEL

A4605

STANDARD

Aquapeel is a white, water-based, temporary coating designed for application to smooth, clean metal walls in order to provide an easy method of maintenance. The dried film collects paint over-spray and contamination and is readily peelable to enable even heavy over-spray deposits to be quickly and cleanly removed.

Colour: **White**

Application: **Spray, brush or roller**

Drying Time: **2-3 hours with good air circ and normal temperature**

Coverage: **5 sq. m per litre**

Life: **Max 3 months**

4 x 5L	A4605-4X5	Container
25L	A4605-25	Drum

AQUAPEEL PLUS

A4612

EASILY SPRAYABLE

Aquapeel Plus is a specially formulated, white pigmented, water borne peelable protective coating based on PVA. The product is designed for application to paint spray booth walls including metal, plastic and painted surfaces. Providing a dry plastic temporary coating that will facilitate 'capture & containment' of even the heaviest paint overspray deposits that can then be quickly and easily removed by peeling off the coating for disposal during routine booth maintenance. Booths are maintained in 'as new' condition providing the ideal paint spraying environment.

Note: *If used on plastic, painted or coated surfaces compatibility testing should be carried out prior to use.*

Colour: **White**

Application: **Spray, brush or roller**

Drying Time: **2-3 hours with good air circ and normal temperature**

Coverage: **2-3 sq. m per litre**

Life: **Max 3 months**

25L	A4612-25P	Drum

AQUAPEEL TS

D4608

TRANSPARENT

Aquapeel TS is a water-based, transparent, temporary protective coating designed for application to glass, light fittings and other surfaces that require good through visibility. This peelable provides an easy method of maintenance as the dried film collects paint over-spray and is then readily peelable enabling over-spray deposits to be quickly and cleanly removed.

Colour: **Transparent**

Application: **Brush or roller**

Drying Time: **3-4 Hrs**

Coverage: **5 sq. m per litre**

Life: **Remove as required**

25L	D4608-25	Drum



TACKY **SURFACE COATINGS**

TACKY SURFACE COATING

A4512

REMOVES AIRBORNE PARTICLES

Tacky Surface Coating is a water-based solution specially formulated for application to painted spray booth walls. The film does not completely dry out at ambient temperatures and its tacky surface collects and holds dust thus greatly assisting in keeping the spray booth area free from airborne particles which can be detrimental to the finished article. Once contaminated the coating can be easily washed off with water.

Application: **Spray, brush or roller**

Drying Time: **Remains Tacky**

Coverage: **8-10 sq. m per litre**

Life: **2-4 weeks or 50 hrs at low bake temperatures**

4 x 5L	A4512-4X5	Container
25L	A4512-25	Drum

BARRIER GEL

D4500

REMOVES AIRBORNE PARTICLES

Barrier Gel is a water-based solution specially formulated for application to spray booth walls and robot covers. Due to its heavy duty nature it is not advisable to use in spraybooths where operators are spraying continously. The film does not completely dry out and will remain effective for up to 50 hours at temperatures up to 50-70 deg C. Its tacky surface collects and holds dust thus greatly assisting in keeping the spray booth area free from airborne particles which can be detrimental to the finished article. Once contaminated the coating can be easily washed off with water.

Application: **Spray or brush**

Drying Time: **Remains soft & tacky**

Coverage: **2-3 sq. m per litre**

Life: **2-4 weeks or 50 hrs at 50-70°C**

25L	D4500-25	Drum
205L	D4500-205	Barrel

TACKY **SURFACE COATINGS**

BARRIER PASTE WW — A4510

WATER WASHABLE

Barrier Paste WW is a non-drying, water washable, dust collecting surface coating. Prevents paint penetration, adhesion and provides a dust and dirt retaining surface for spray booths and fittings. It is off-white and water-based, so can be easily removed with water.

Application: **Spray or brush**

Coverage: **4-5 sq. m per litre**

Life: **Remove & re-apply as required**

25L	A4510-25	Drum

BARRIER PASTE WR — D4501

WATER RESISTANT

Barrier Paste WR is a non-drying, water resistant, dust collecting surface coating. Prevents paint penetration, adhesion and provides a dust and dirt retaining surface for spray booths and fittings. It is splash resistant and should be applied in thick layers. It can be re-coated and is best removed by scraping.

Application: **Rag or brush**

Coverage: **4-5 sq. m per litre**

Life: **3-4 weeks depending on usage**

25L	D4501-25	Drum



OVEN COAT WR HT — D4531

HIGH TEMPERATURE, HIGH TACK

The applied coating converts to a highly effective tacky dust collecting surface, that will withstand high oven temperatures (up to +180 deg C) for prolonged periods.

Application: **Spray or brush**

Coverage: **4-5 sq. m per litre**

Life: **Remove & re-apply as required**

25L	D4531-25	Drum

BARRIER **SURFACE COATINGS**

BARRIER FILM WS — A7866

WATER SOLUBLE

Barrier Film WS is a water soluble coating that dries to form a white, dry, non-dusty, absorbent surface. It prevents paint over-spray from adhering to spray booths, floor plates and fittings. It is water-based and should be applied in thick layers. Barrier Film WS is easily removed by pressure wash with water or by scraping.

Colour: **White**

Application: **Spray, brush or roller**

Drying Time: **1-2 hrs under normal conditions**

Coverage: **4-5 sq. m per litre**

Life: **Remove and re-apply as required**

25L	A7866-30	Drum
205L	A7866-205	Barrel

BARRIER FILM AS — A4505

ALKALINE SOLUBLE

Barrier Film AS is a tough, alkaline soluble, transparent coating which when dry is resistant to water but can be removed with a dilute alkaline detergent solution. These special properties make Barrier Film AS ideal for use in spray booths as a temporary protective coating. Unsightly paint over-spray adheres to the surface of Barrier Film AS instead of the underlying structure. Barrier Film AS can be used on a wide range of non-porous surfaces including floors and walls.

Application: **Spray or roller**

Drying Time: **6-8 hrs under normal conditions**

Coverage: **5-10 sq. m per litre**

Life: **Remove and re-apply as required**

10L	A4505-10	Drum



SURFACE CLEANING

Orapi Applied Ltd manufactures a range of surface cleaners to support Paintshop and Metal pre-treatment applications

1 Hard Surface Cleaners

From low hazard products for general cleaning through to industrial cleaners for difficult soiling, products to apply by hand, brush, pressure washer or floor scrubbing machines

2 Degreasing Wipes

A range of specialist impregnated degreasing wipes for a multitude of applications

ORAPI's RECOMMENDATIONS

CHEMICAL ACTION (pH)

THE RECOMMENDED ORAPI PRODUCT

TEMPERATURE OF MIXTURE

Use the product at the suggested temperature to maximise efficiency



MECHANICAL ACTION

THE RIGHT EQUIPMENT
parts washer, scrubber-drier, pressure washer, manual

ACTION TIME

THE RIGHT ACTION TIME
Allow suitable contact time or leave the parts to soak before rinsing or wiping clean

HARD SURFACE **CLEANERS**

AQUABRITE — A7212

ALKALINE CLEANER

Aquabrite is a non-flammable water based alkaline cleaner designed to meet the highest standards of general performance cleaning. It can be used for all general maintenance cleaning and is particularly useful for removing light paint over-spray and silicone making it an ideal paint shop cleaner.

Application: **Cold spray/wipe on - wipe off**

Concentration: **Light soiling - 5%**

4 x 5L	A7212-4X5	Container
25L	A7212-25	Drum
205L	A7212-205	Barrel

AQUAKLEEN — A7211

WATER BASED INK REMOVER

Aquakleen is a safe to use water based cleaner, for removal of water based inks from machine parts, floors, etc. For best results dilute with 1 to 10 parts water dependant on application.

Application: **Cold spray/wipe on - wipe off**

Concentration: **High Soiling - 1-2%**

12 x 1L	A7211-12X1	Bottle
25L	A7211-25	Drum
205L	A7211-205	Barrel

AQUABOOST — B7216

ALKALINE CLEANER

Aquaboost is a highly concentrated liquid cleaner, formulated to rapidly remove most industrial soils. It provides high performance cleaning at very low concentrations. Can be used in pressure washing and floor scrubbing machines. Aquaboost quickly removes oils, greases, etc.

Application: **Hot or cold Pressure washing, Steam cleaning, Floor scrubbing, Hand spray application**

Concentration: **High Soiling - 2-5%**

25L	B7216-25	Drum
205L	B7216-205	Barrel

AQUABOOST LOW FOAM — B7903

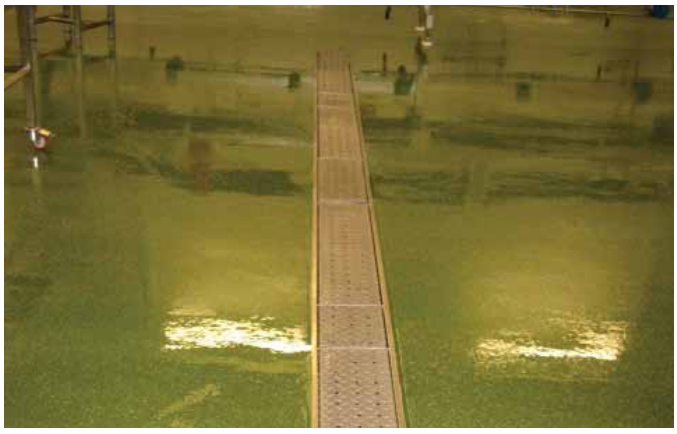
ALKALINE CLEANER CONCENTRATE

Aquaboost is a highly concentrated liquid cleaner, designed for the cleaning of industrial floors. It will rapidly remove oils, greases and general soiling from floors and other hard surfaces. When used in conjunction with floor scrubbing machines, the low foam nature of the product promotes the easy rinsing of the floor leaving minimal detergent residues.

Application: **Floor scrubbing machines, mop, hand spray application**

Concentration: **Light Soiling - 10%**

25L	B7903-25	Drum
205L	B7903-205	Barrel
1000L	B7903-1000	IBC



G850 — B7216

GENERAL PURPOSE CLEANER

G850 is a powerful concentrated cleaner used for the rapid removal of grease and contamination from surfaces. An ingenious formulation allows G850 to tackle a wide range of duties from heavy duty contamination to light soiling.

Application: **brush, swab, mop, sponge or spray**

Concentration: **Medium Soiling - 2.5 - 20%**

2 x 5L	A1220-2X5	Container
25L	A1220-25	Drum
205L	A1220-205	Barrel
1000L	A1220-1000	IBC

SEALANT REMOVER — E4030

AIR DRYING

Sealant Remover is an air drying formulation designed for removing sealants and heavy soiling, leaving a clean, residue-free surface.

Application: **Immersion, Wipe on/ wipe off**

Concentration: **Use as supplied**

12 x 500ml	E4030-12X500	Bottle

GLASS CLEANER — D7111

GLASS CLEANER

Glass Cleaner is a sophisticated blend of solvents and detergent specifically formulated for cleaning glass and other hard surfaces where a streak free finish is essential. The product cleans a wide variety of soils. It is suitable for use on all glass, stainless steel, chrome, ceramic, laminate and most plastics.

Application: **spray and wipe with a quality paper towel, or lint free cloth.**

Concentration: **Use as supplied**

6 x 500ml	D7111K-6X500	Trigger Spray
2 x 5L	D7111D-2X5	Container

DEGREASING **WIPES**

METSOLV WIPES 4022

E4022

SOLVENT WIPE

Low lint solvent impregnated wipes ideal for a wide range of degreasing applications. Low vapour toxicity, low lint, fast drying with a controlled solvent content per wipe.

Application:
Use as supplied

300	E4022-300	Perforated Roll



METSOLV WIPES 4034

E4034

SOLVENT WIPE

Metsolv 4034 Wipes are a high quality low lint paper wipe impregnated with a blend of residue free solvents. The product is ideal for a wide range of degreasing applications. Low vapour toxicity, low lint, fast drying. Dispensed as an individual wipe.

Application:
Use as supplied

300	E4034-300	Bulk Pack

ORANGE SOLVENT WIPES

WSO150

DEGREASING WIPES

PRONATUR® Orange Solvent Wipes are a low lint wipe impregnated with a specially formulated blend of degreasing solvents and citrus based cleaning agents designed for use in industrial applications. It offers superior penetration and cleaning of difficult to remove contaminants, mineral oils, greases, tar/bitumen, semi-cured adhesives and sealants, uncured paints/varnishes and oil based printing inks.

PRONATUR®

Application:
Use as supplied

5 x 25	WSO150	Bulk pack





METAL PRE-TREATMENT

GRAMOS® provides strength in depth gained with over 50 years' experience within metal cleaning, finishing and surface control solutions for industrial pre-treatment processes. Our extensive product range is strengthened further by our technical support team who are on hand to provide bespoke chemical dosing systems, site service and customer service laboratory testing to suit your individual requirements (subject to agreement).

1 Degreasing

SURFACE CONTAMINATION WHAT IS IT?

Oily or greasy substances, hydrocarbon deposits. Sources of surface contamination within manufacturing could be from cutting fluids, pressing oils, mould release agents and lubricants.

SURFACE CONTAMINATION WHAT DOES IT CAUSE?

Prevents paint and coating adhesion. Therefore the removal of grease is important within manufacturing, repair and overhaul.

Orapi manufactures a comprehensive range of solvent and aqueous degreasing solutions to suit every application, for all types of oil, grease and soil removal whether by single or multi stage pre-treatment process. Our technology utilises the latest in chemical advances for manual, immersion, ultrasonic and spray wash processes.

2 De-Oxidisers

OXIDATION WHAT IS IT?

Oxidation is the interaction between the oxygen molecules present in the atmosphere and a surface or material it reacts with. Common forms of oxidation are the formation of rust on iron or steel surfaces and components or how freshly processed copper turning green when left in the environment.

Oxidation can often cause unsightly reactions on the surface or can cause destructive effects, these oxide layers are sometimes needed to be removed before the component can be further processed or to make the surface appear clean and bright. Products with this capability are known as de-oxidisers and they remove the thin oxide layer from the surface exposing the bare metal again. This bare metal will have a bright finish and will be reactive to various processes including Phosphating and Corrosion Inhibitors.

Our range of advanced products offer fast and effective solutions for the removal of corrosion and oxide coating from metal surfaces. Many of the pickling and de-scaling products are specifically formulated to ensure a long solution life providing the opportunity to acheive cost reductions.



3

Phosphating

PHOSPHATING WHAT IS IT?

The process of Phosphating relates to the conversion coating process that produces a uniform, very thin layer of metal Phosphate on the surface on a metal component. The resultant metal Phosphate surfaces are formed for various reasons; these include improved paint and plastic coating adhesion, corrosion protection and increased lubrication prior to metal drawing operations.

To enable the Phosphating process to work efficiently the surface of the metal will need to be clean of any contamination. Therefore often a de-oxidising or degreasing operation is required prior to the Phosphating process to remove any oxide layers, oils and greases that are present.

Our iron phosphate, zinc phosphate, chromate or dry in place systems provide a superior conversion coating on ferrous and non-ferrous metal surfaces prior to painting. Use of these processes and final rinse additives increases the corrosion resistance of the metal surface and enhances paint adhesion properties.

CORROSION INHIBITORS WHAT ARE THEY?

4

Corrosion Inhibitors

A corrosion inhibitor is a protective additive encased within a chemical blend, when applied to a surface it decreases the corrosion rate of a material, typically a metal or an alloy. This common mechanism for inhibiting corrosion involves formation of a coating, often a passivation layer, which prevents access of the corrosive substance to the metal.

Our range of water based and solvent based anti-corrosion and protective treatments are available to suit all applications from short to long term protection. These offer essential protection against the corrosion of ferrous metals following cleaning and processing.

STANDARD **DEGREASERS**

PRE-PAINT WIPE — G4035

SOLVENT CLEANING FLUID

Fast evaporating residue free solvent cleaner. The product evaporates quickly making it ideal for cleaning surfaces prior to painting.

Application:
Apply sparingly to a clean lint free cloth and wipe the surface to be cleaned/painted.

Concentration:
Use as supplied

4 x 5L	G4035G-4X5	Container
25L	G4035-25	Drum
205L	G4035-205	Barrel

ORANGE SOLVENT — SLO

BIODEGRADABLE SOLVENT

PRONATUR® Orange Solvent is a specially formulated blend of degreasing solvents and citrus based cleaning agents designed for use in industrial applications. The product offers controlled evaporation for increased contact time, superior penetration and cleaning of difficult to remove contaminants, mineral oils, greases, tar/bitumen, semi-cured adhesives and sealants, uncured paints/varnishes and oil based printing inks.

PRONATUR®

Application:
Spray systems, dip & ultrasonic tanks, recirculating parts washers, Manual – brush, cloth, sponge

Concentration:
Use as supplied

6 x 1L	SLO120	Bottle
6 x 1L	SLO120T	Trigger
4 x 5L	SLO128	Container
12 x 500ml	SLO130	Aerosol
25L	SLO132	Drum
205	SLO136	Barrel
1000L	SLO140	IBC

METSOAK EM3965 — H3965

HIGH POWER EMULSIFIABLE SOLVENT DEGREASER

Metsoak EM3965 is a carefully selected blend of biodegradable surfactants formulated with hydrocarbons. The solvents rapidly penetrate oil and grease deposits and the incorporated detergency package enables the product to be readily rinsed with water. Due to its high solvency power, it is ideal for many difficult cleaning tasks including the removal of heavy fuel oils, oxidised and aged oil deposits, tars, heavy greases and tenacious lubricating or polishing compounds.

Application:
brush, swab, non-misting spray, soak tank or recirculating parts washer.

Concentration:
Use as supplied and to be removed by clean free-flowing water

25L	H3965-25	Drum
205L	H3965-205	Barrel

METSOLV 4010 — E4010

HIGH PURITY SOLVENT CLEANER

Metsolv 4010 is an odourless, low flammability, high purity solvent blend designed for use as an air drying solvent cleaner and degreaser. The product has been formulated for the removal of a wide range of oils, greases, waxes and similar materials from metals and solvent resistant surfaces. The product is slow evaporating allowing it to remain on the surface and thoroughly penetrate the contaminant requiring removal.

Application:
spray or immersion

Concentration:
Use as supplied

4 x 5L	E4010-4X5	Container
25L	E4010-25	Drum
205L	E4010-205	Barrel

IMMERSION **DEGREASERS**



METSOAK AK3914 — A3914

MILDLY ALKALINE NON-SILICATED CLEANER

Metsoak AK3914 is a liquid, non-silicated cleaner which may be used for the removal of a wide variety of oils and greases from ferrous and non-ferrous metal by immersion processes.

Application:
Immersion

Concentration:
5-10%

Temperature:
between 50 - 55°C

25L	A3914-25	Drum
200L	A3914-200	Barrel
1000L	A3914-1000	IBC

IMMERSION **DEGREASERS**

METSOAK AK3923 — B3923

HEAVY DUTY, ELECTROLYTIC CLEANER

Metsoak AK3923 is a powder blend specially formulated to provide a powerful degreasing action for electro-cleaning iron and steel. The blend of alkalis in the product readily removes and suspends the most stubborn oil and grease deposits, whilst the surfactant additives improve soil penetration.

Application: **Immersion**

Concentration: **6%**

Temperature: **70-80°C**

25Kg	B3923-25	Drum

METSOAK AK3924 — B3924

HEAVY DUTY DEGREASER AND RUST REMOVER

Metsoak AK3924 is a powerful caustic based powder detergent designed for the removal of the most difficult industrial soils. It is ideal for use in demanding cleaning environments, such as engine reconditioning, where its low dosage offer extremely cost effective treatment. The products high sequestrant level supports the alkali detergent resulting in an efficient derusting and paint stripping capacity, in addition to the exceptional degreasing and decarbonising performance.

Application: **Immersion - 5-25% concentration**

Spray wash - 0.5 - 1%, use at temperatures between 80-100°C

25Kg	B3924-25	Drum

SPRAY WASH

METSPRAY AK3848 — A3848

MEDIUM DUTY SPRAY WASH DETERGENT

Metspray AK3848 is a medium duty liquid concentrate containing a blend of sequestrants and corrosion inhibitors that are specially formulated for use at low temperatures in interstage or final stage washing. It provides excellent cleaning performance, and the addition of a nitrite free rust inhibitor imparts good short term corrosion protection.

Application: **Spray wash**

Concentration: **up to 5% at temperatures from ambient to +80°C.**

25L	A3848-25	Drum
205L	A3848-205	Barrel
1000L	A3848-1000	IBC

METSPRAY AK3805 — B3805

HEAVY DUTY DECARBONISING & DERUSTING FLUID

Metspray AK3805 is a low foaming heavy duty liquid alkaline cleaner. Effective against a wide range of difficult to remove soilings including rust, paint, combustion engine deposits and oxidised grease and oil. The product is formulated for use in spray wash equipment but can also be used in immersion processes. Rinse thoroughly after use. Suitable for use with all ferrous metals.

Application: **Spray wash - 1 – 10% concentration.**

Immersion - up to 50% concentration, can be heated to 95°C, rinse thoroughly after use.

25L	B3805-25	Drum
205L	B3805-205	Barrel
1000L	B3805-1000	IBC

ULTRASONIC

CITRIKLEEN HDA — E3970

SOLVENT EMULSION DEGREASER & DECABONISER

Citrikleen HDA is a biodegradable highly concentrated water dilutable emulsifiable solvent degreaser/decarboniser. It is formulated from a naturally occurring solvent combined with carbon removers and surfactants. Designed to degrade and dislodge carbonaceous deposits, oils and greases. It is an effective replacement for 1,1,1-Trichloroethane and other environmentally unacceptable solvents.

Application: **Immersion, ultrasonic or wipe on - wipe off**

Concentration: **Can be diluted up to 20%**

25L	E3970-25	Drum
205L	E3970-205	Barrel
1000L	E3970-1000	IBC

SUPAR RX — A3911

SOLVENT EMULSION DEGREASER

Supar RX is a hard surface cleaner. The high glycol solvent content enables the product to remove tenacious oils, greases, inks, adhesives and similar contamination from robust hard surfaces. It has also been found to be very effective when used with ultrasonic agitation.

Application: **Brush, spray or immersion.**

Concentration: **Can be diluted up to 5%**

25L	A3911-25	Drum

DE-OXIDISERS

METCLEAN DX4860

C4860

ACIDIC ALUMINIUM CLEANER

Metclean DX4860 is a liquid acidic material designed for cleaning and brightening aluminium equipment and surfaces. It removes scale, oxidation and greases.

Application: **Immersion (Tanks should be fabricated from rubber lined steel)**

Concentration: **5-25%**

Temperature: **ambient to 40°C.**

25L	C4860-25	Drum

METSOAK DX4920

C4920

INHIBITED ACID SCALE AND RUST REMOVER

Metsoak DX4920 is a concentrated blend of inhibited mineral acid (phosphoric) with detergents and wetting agents. It is non-fuming and less aggressive than many other mineral acids but will effectively remove scale, rust and metal tarnish. The detergents contained in the product enable simultaneous pickling and oil/grease removal. It is a simple and economical method of removing rust, heat treatment scale and welding scale from ferrous components.

Application: **Wipe, brush, immersion and spray techniques.**

Concentration **as required, depending on contact time**

Temperatures: **20 - 80°C.**

4 x 5L	C4920-4X5	Container
25L	C4920-25	Drum
205L	C4920-205	Barrel
1000L	C4920-1000	IBC

PHOSPHATING

METFIN® IP3502

C3502

COMBINED DETERGENT IRON PHOSPHATER

METFIN® IP3502 is a liquid phosphating solution designed to clean and conversion coat steel, aluminium and zinc. Applied by spray this material provides an extremely powerful cleansing action and forms an inert iron phosphate coating which will improve the adhesion and performance of painted finishes.

Application: **Spray**

Concentration: **1 - 3%**

Temperature: **50 - 60°C**

25L	C3502-25	Drum
205L	C3502-205	Barrel
1000L	C3502-1000	IBC

METFIN® IP3504

C3504

IRON PHOSPHATER

METFIN® IP3504 is a liquid concentrate formulated to produce medium to high weight Iron Phosphate coatings by spray application. METFIN® IP3504 is used in conjunction with the phosphate detergent – METFIN® AD3822 (page 29) which provides a very efficient detergent system making the product suitable for both twin and multistage plant. The ratio of detergent / phosphate can be adjusted to ensure efficiency and economy.

Application: **Spray**

Concentration: **1 - 3%**

Temperature: **35 - 60°C**

25L	C3504-25	Drum
205L	C3504-205	Barrel
1000L	C3504-1000	IBC

METFIN® IP3509

C3509

COMBINED DETERGENT IRON PHOSPHATER

METFIN® IP3509 has been formulated for simultaneous cleaning and phosphating of iron and steel in 3 or 4 stage spray plants. It produces a high performance amorphous phosphate coating, greatly enhancing the adhesion and performance of subsequently applied paint finishes. It is capable of effectively operating at temperatures as low as +17°C.

Application: **Spray**

Concentration: **3 - 5%**

Temperature: **17 - 70°C**

25L	C3509-25	Drum
205L	C3509-205	Barrel
1000L	C3509-1000	IBC

METFIN® IP3510

C3510

LANCE APPLICATION CLEANER COATER

METFIN® IP3510 is a liquid iron phosphating solution designed to clean and conversion coat steel, aluminium and zinc. METFIN® IP3510 is formulated to be applied by a hand held spray lance technique. The powerful cleaning action and subsequent formation of an amorphous iron phosphate coating provides for excellent paint adhesion and increased corrosion resistance of painted components.

Application: **Spray**

Concentration: **0.5 - 2%**

Temperature: **45 - 90°C**

25L	C3510-25	Drum
205L	C3510-205	Barrel
1000L	C3510-1000	IBC

PHOSPHATING

METFIN® AD3538 — D3538

DETERGENT DEGREASER

METFIN® AD3538 is a synergistic blend of surfactants specially formulated for use in spray pretreatment processes, providing improved degreasing capabilities. The product may be used in conjunction with lightweight iron and zinc phosphate solutions as well as alkaline cleaners and can also be used as a neutral first stage knock-off. Adding METFIN® AD3538 to phosphating solutions will improve the efficiency of the process by producing a thoroughly cleaned and wetted surface.

Application:
Automated systems - Concentration in phosphate solutions up to 2%.

spray and immersion - cleaning concentrations will depend on the amount and type of contamination.

25L	D3538-25	Drum
205L	D3538-205	Barrel

METFIN® AD3822 — D3822

DETERGENT DEGREASER

METFIN® AD3822 is a neutral pH low-foaming detergent primarily designed for application in phosphating processes, but is also suited for other spray wash applications. An advanced detergent and synergistic solvent blend gives the product excellent oil removing capabilities over a wide temperature range.

Application:
Automated systems - Concentration in phosphate solutions up to 0.4%,

spray and immersion - cleaning applications 1 - 5%, use at temperatures between ambient and +70°C

25L	D3822-25	Drum
205L	D3822-205	Barrel
1000L	D3822-1000	IBC

ALKALINE pH REGULATOR — B5820

pH REGULATOR

Alkaline pH Regulator is an alkaline based additive designed to maintain the pH of phosphating solutions within the correct parameters for optimum performance (pH 4 - 6)

Application:
Dose as required to increase the pH of the solution.

25L	B5820-25	Drum

METCLEAN AD5800 — C5800

ACIDIC ADDITIVE FOR PHOSPHATING

Metclean AD5800 is an acidic liquid formulated to increase the acidity of iron phosphate solution. The addition of Metclean AD5800 increases the free acid of these solutions.

Application:
Dose as required to decrease the pH of the solution.

25L	C5800-25	Drum

METFIN® FR3601 — C3601

CHROME FREE FINAL RINSE

METFIN® FR3601 is a chrome-free, final rinse additive designed for use with iron and zinc phosphates in spray or immersion pre-treatment plants. Extensive testing has shown that the performance of METFIN® FR3601 equals that of hexavalent chrome based final rinses. The in-use solution must be prepared using good quality deionised water.

Application:
Spray or Immersion

Concentration
0.5 - 1.0%

Temperature:
ambient to +70°C

25L	C3601-25	Drum

METFIN® FR3603 — A3603

CHROME FREE FINAL RINSE

METFIN® FR3603 is a non-chrome passivation treatment for use in the final rinse of Zinc and Iron Phosphate lines and can be applied by dip or spray application. METFIN® FR3603 increases the corrosion resistance of the substrate without reducing the adhesion of the subsequent paint finish.

Application:
Immersion or spray

Concentration:
0.25 - 0.5%

25L	A3603-25	Drum

For additional detailed metal pre-treatment advice, please contact our technical department on +44 (0) 121 525 4000



PHOSPHATING

METFIN® FR3604

B3604

CHROME FREE FINAL RINSE

METFIN® FR3604 is a chromate free, final rinse additive for use in spray or immersion pre-treatment plants. It provides protection to ferrous surfaces during dry-off, and significantly enhances overall process performance on steel and Zinc based substrates when used with the optional additives.

Application:
Spray or immersion

Concentration:
0.1 – 0.5%

25L	B3604-25	Drum



CORROSION INHIBITORS

METPROTECT SV3702

E3702

DEWATERING RUST PREVENTATIVE

Metprotect SV3702 is a solvent deposited product, which provides superior dewatering and corrosion preventing properties. The product dries to a clear, thin 'oily' film that offers internal storage corrosion protection of treated components for up to twelve months, depending on the storage environment. Metprotect SV3702 is suitable for use on all metals including copper and aluminium alloys.

Application:
Dipping - Use cold, in purpose designed tank. Applied film will air dry in 45-60 minutes at ambient temperature.

Spray/Brush - By low pressure, airless spray or brush

25L	E3702-25	Drum

METPROTECT SV3703

E3703

DEWATERING RUST PREVENTATIVE

Metprotect SV3703 is a dewatering corrosion preventative that on application leaves a thin, "dry-to-touch", transparent corrosion resistant film. It is normally used by dip application, but where this is not convenient, spray or brush methods may be employed. The dried film is over paintable.

Application:
Dipping - Use cold, in purpose designed tank. Applied film will air dry in 15-30 minutes at ambient temperature.

Spray/Brush - By low pressure, airless spray or brush

25L	E3703-25	Drum
205L	E3703-205	Barrel

METPROTECT SV3705

E3705

DEWATERING FLUID

Metprotect SV3705 contains dewatering and corrosion preventing additives in a solvent base. It effectively displaces water and provides a stain free finish. Treated components are left with an extremely fine rust inhibiting film which will provide short term protection.

Application:
Dipping - By dewatering/ immersion tank at room temperature.

Spray/Brush - By low pressure, airless spray or brush

25L	E3705-25	Drum

METPROTECT 3740

J3740

TEMPORARY CORROSION INHIBITOR

Metprotect 3740 is a highly active rust inhibitor and light duty cleaner suitable for many applications. It contains sodium nitrite blended with mild alkalis and wetting agents in order to provide rust inhibiton of ferrous metals with excellent rinsing properties and a mild cleaning action.

Application:
Spray wash (For rust inhibiting rinse, heat the solution to achieve "flash-drying")

Concentration:
0.5 - 1.5.

Temperature:
70-90°C.

25L	J3740-25	Drum



PAINT REMOVAL

1 Removing Paint

Paint coatings are removed for a number of reasons from refurbishment to surface inspection and flaw detection. Common methods include mechanical (scraping or sanding), heat (hot air, radiant heat, or steam) or the use of a chemical paint stripper.

2 Gramos Direction

GRAMOS® deliver a 50 year manufacturing knowledge in our range of solvent or caustic based paint strippers, a complete range of solutions to suit most applications from “brush on” to immersion stripping.
Paint stripping can be a hazardous business, therefore health, safety and environmental considerations during the process are very important. Please speak to the GRAMOS® technical team for the latest advice on current regulations and the safe use of chemicals during your paint removal process.





BRUSH ON

METSTRIP SV3405 *

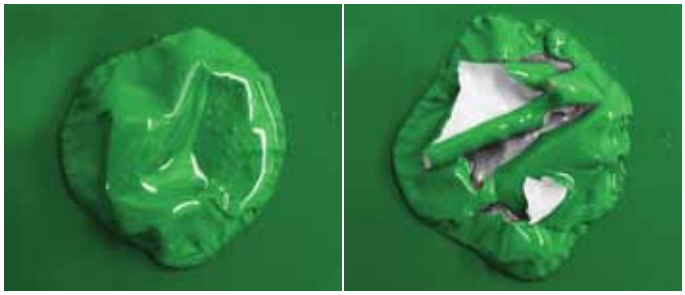
F3405

Application:
Brush on followed by water or solvent rinse

BRUSH APPLICATION

Metstrip SV3405 is a brush application, Dichloromethane based, acid activator paint stripper. It is a high speed, brush application paint remover designed to quickly and cleanly remove most industrial paint finishes, lacquers, and varnishes. Suitable for use on most surfaces including wood but excluding light Magnesium alloys.

4 x 5L	F3405-4X5	Container
25L	F3405-25	Drum
205L	F3405-205	Barrel



The above images shows the effects of Metstrip F3405 on a 2-Part paint after 2 minutes of application.
* The effects of the product are dependant on paint type, thickness and conditions.

IMMERSION

METSTRIP ST3456 *

C3456

Application:
Cold Immersion followed by water rinse

COLD IMMERSION

High performance, Hydrofluoric Acid activated, Dichloromethane based, cold immersion stripper for the removal of difficult to remove finishes including polyester, nylon, powder coating and electrophoretic coatings from steel and aluminium.

25L	C3456-25	Drum
205L	C3456-205	Barrel

METSTRIP EF3461

B3461

Application:
Hot Immersion followed by water rinse

HOT IMMERSION

Non chlorinated immersion paint stripper used as supplied at temperatures up to 60°C. Based on Benzyl alcohol which provides less hazards than conventional solvent strippers. Low evaporation provides a long tank life ideal for removing powder coatings on steel and other non ferrous metals.

25L	B3461-25	Drum
205L	B3461-205	Barrel
1000L	B3461-1000	IBC

METSTRIP SV3452 *

C3452

Application:
Cold Immersion followed by water rinse

IMMERSION

High performance, acid activated, Dichloromethane based cold immersion stripper with an aqueous seal. Formulated for stripping a wide range of paints from most metals, including epoxy stoved paints and epoxy polyester powder coatings from steel most non ferrous metals. Not to be used on Magnesium alloys, Zinc or plastics.

25L	C3452-25	Drum
205L	C3452-205	Barrel

METSTRIP AK3459

B3459

Application:
Hot Immersion followed by water rinse

HOT IMMERSION

Solvent boosted, caustic based, hot immersion paint stripper for removing 2 pack acrylic, polyurethane, powder coated steel components, jigs, floor grids etc. Environmentally friendly no solvent disposal.

205L	B3459-205	Barrel

METSTRIP ST9160 *

C3453

Application:
Cold Immersion followed by water rinse

COLD IMMERSION

High performance, acid activated, cold immersion paint stripper. Based on Dichloromethane with a wax membrane seal. Ideal for the removal of a wide range of stoved paints including powder coating from most metals.

25L	C3453-25	Drum
205L	C3453-205	Barrel

*** Denotes the above products falls under Council Directive 76/769/EEC Restrictions on the Marketing and Use of Dichloromethane Paint Strippers. Dichloromethane is also commonly known as Methylene Chloride.**



HANDCARE

Kleenall

Working within paint shops, metal processing and dusty areas is always going to cause hand contamination, react to skin hygiene with the KLEENALL® industrial hand care range. Regarded for decades as the hand cleaner of choice within paint shops and associated industries the KLEENALL® range is effective in the removal of paints, inks, resins, oil, grease and other hard to remove soiling.

A comprehensive range in paste, gel, liquid or portable wipe variations, KLEENALL® has solutions for heavy duty cleaning, washroom, anti-bacterial and sanitising. Skin conditioning and barrier creams complete the range, dispensing options include wall mounted modular or pump systems

HAND CLEANERS

KLEENALL® PROTECT

MOISTURISER & BARRIER CREAM

We are proud to offer a premium quality conditioning cream that moisturises the skin to prevent against cracking. KLEENALL® Protect is also a barrier cream, applied frequently it protects against dirt and enables easier cleaning which means that less aggressive hand cleaners are needed. Then, after work, KLEENALL® Protect is perfect to make your hands feel your own again. Can be used for wet or dry work. 2 in 1 product, reduces the number of products required.

12 x 500ml	D7068-12X500	Pot
2 x 5L	D7068-2X5	Tub

KLEENALL® BEADED

CLEANER WITH POLY-BEADS

A premium quality industrial gel hand cleaner designed to give superb removal of all general grease, grime and ink. Poly-beads aid the removal of stubborn dirt such as tar or even wet paint, making KLEENALL® Beaded a superb all round workshop or factory hand cleaner suitable for most applications.

6 x 3L	D7017-6X3	Tub
10L	D7017-10	Pail

KLEENALL® PASTE

CLEANER WITH POLY-BEADS

The original KLEENALL® Paste is lightly perfumed and free rinsing, KLEENALL® Paste is a pleasant and easy to use paste that has become the market leading product for the removal of paint, resins and adhesives. The specialist formulation containing poly-beads aids the removal of stubborn grease and grime, continuing to make KLEENALL® Paste the favourite hand cleaner amongst paint sprayers, print workers, mechanics and engineers.

12 x 1L	D7030-12X1	Pot
4 x 5L	D7030-4X5	Tub
25L	D7030-25	Bucket

KLEENALL® TAKLEEN

HAND CLEANER, NON-BEADED

A general purpose hand cleaner for the removal of paints, resins, adhesives, inks, grease and grime without resulting to the use of harmful solvents. This means that KLEENALL® Takleen does not de-fat the skin, but leaves hands feeling smooth and soft.
Designed to reduce cases of dermatitis, KLEENALL® Takleen uses a blend of gentle surfactants to dissolve the most difficult soiling, allowing them to be washed away.

4 x 5L	D7029-4X5	Tub
25L	D7029-25	Drum

KLEENALL® LIQUID

CLEANER WITH POLY-BEADS

A powerful liquid version of our renowned KLEENALL® Paste, KLEENALL® Liquid is an easily dispensed poly-beaded hand cleaner that provides impeccable performance for professionals in the painting, printing and engineering areas.

4 x 3L	D7067-4X3	Tub
4 x 5L	D7067G-4X5	Tub inc dispenser

KLEENALL® NATURALLE

SOLVENT FREE CLEANER

Designed to give high performance in demanding conditions but still be ultra kind to skin. KLEENALL® Naturalle is a totally solvent free paste, combining soaps, natural detergents and poly-beads.
A pleasant citrus fragrance and a rich lather make this a powerful but luxurious product capable of removing ingrained dirt and leaving hands smooth and conditioned.

6 x 3L	D7018-6X3	Tub

HANDSOAPS



KLEENALL® LUXURY

CLEANER & CONDITIONER

A mild but powerful, synthetic based liquid hand lotion with a luxurious fragrance that cleans and conditions to leave the skin feeling soft and supple.
Formulated for use in the most opulent of surroundings such as hotels and restaurants, KLEENALL® Luxury will also be the product of choice for office, factory and wash rooms.

2 x 5L	D7011-2X5	Tub
12 x 800ml	D7011-12X800	Pot

HANDSOAPS

KLEENALL® ANTI-BAC

ANTI-BACTERIAL HANDSOAP

A powerful, non-perfumed, anti-bacterial hand soap that cleans and contributes to good hygiene. KLEENALL® Anti-Bac is effective against Enterobacteriaceae, Staphylococcus sp. and many other organisms. Widely used in Food Manufacturing and Catering outlets, also suitable for use in the healthcare sector.
Added emollients in KLEENALL® Anti-Bac prevent the skin from drying or cracking even with frequent use. This combined with the anti-bacterial properties, mean that a residual bactericidal action is observed.

2 x 5L	D7045-2X5	Tub



KLEENALL® WIPES

WATERLESS SYSTEM

KLEENALL® heavy duty hand wipes are a waterless hand cleaning system. Combining a high quality hand cleaner with a non-scratch abrasive towel to create a performance wipe which removes heavy grease, lubricants, adhesives, oils, tar, inks and many other difficult to remove soiling without the need for water. Ideal for the mobile workshop or situations where washing facilities do not exist.

10 x 70 Wipes	D7036-10X70	Tub

DERMAGEL

ALCOHOL HAND SANITISER GEL

Dermagel is an alcoholic gel for disinfection of the hands following washing with a hand soap. Used where high standards of hand hygiene are required.

2 x 5L	E7047-2X5	Container

DISPENSERS

WALL MOUNTED BRACKET

DISPENSER

Where usage of hand cleaner is high and appearance is important, Orapi Applied provide a robust, reliable and unique solution. Our 3 litre tubs fit into a handy wall mounted bracket with a heavy duty integral pump system that gives easy and reliable operation, looks good and prevents waste.

1 Unit	S9344-1X1	Dispenser Pump with Bracket

DISPENSER PUMP

DISPENSER

Our 3 litre polythene pails have the facility to accept a top mounted pump dispenser to prevent cross contamination between users and ensure the working environment remains clean and professional.

1 Unit	S9347-1X1	Dispenser Pump

WALL MOUNTED MODULAR SYSTEM

DISPENSER

Our new wall mounted modular system features “Double Hinge Technology” and interchangeable pump modules for liquid, spray or foaming products that can be refillable. Dispensers can be differentiated by colour coding for soap, sanitise, and protection but with a consistent “look” that maintains a professional image.

1 Unit	S9330-1X1	1 Litre Dispenser



LOCATIONS

ORAPI GROUP



Manufacturing Facilities

Distribution Subsidiaries

our presence across the world

LOCATIONS

FRANCE

ORAPI FRANCE
Parc Industriel de la Plaine de l'Ain
225, allée des Cèdres, 01150 Saint-Vulbas
Tel: +33 4 74 40 20 20 Fax: +33 4 74 40 20 21
Web: www.orapi.com Email: contact@orapi.com

FRANCE - ARGOS HYGIENE
12 rue Pierre Mendès France - 69120 Vaulx-en-Velin
Tel. : +33 (0)4 37 06 28 00 Fax : +33 (0)4 37 06 28 50
Web : www.argos-hygiene.fr E-mail : contact@argos-hygiene.fr

FRANCE - DACD
Parc d'Activités Mathias, BP 9
26320 Saint Marcel lès Valence
Tel: +33 4 75 58 80 10 Fax: +33 4 75 58 74 46
Web: www.dacd.com Email: contact@dacd.com

FRANCE - PHEM TECHNOLOGIE
21 allée Louis Bréguet, 93421 Villepinte Cedex
Tel: +33 1 49 63 44 55 Fax: +33 1 49 63 05 56
Web: www.phem.fr Email: contact@phem.fr

FRANCE - PROVEN ORAPI
21 allée Louis Bréguet, 93421 Villepinte Cedex
Tel: +33 1 49 63 44 55 Fax: +33 1 49 63 05 56
Web: www.proven.fr Email: accueil@proven.fr

FRANCE - TOP PRO HYGIENE
Parc Industriel de la Plaine de l'Ain,
225 Allée des Cèdres - 01150 Saint-Vulbas
Tel. : +33 (0)4 74 40 54 00 Fax : +33 (0)4 74 40 54 01
Web : www.top-hygiene.fr

SOUTHERN EUROPE

ITALY – ORAPI ITALIA SRL
Via Vaccareccia 39, 00040 Pomezia (RM)
Tel: +39 06 916 10576 Fax: +39 06 918 02468
Email: info@orapi.it

SPAIN – ORAPI TRANSNET SL
C/Secorún nº 4 - 22600 Sabiñánigo (Huesca)
Tel. / Fax : +34 974 480 828
E-mail : adminote@orapi.com

ASIA & MIDDLE EAST

SINGAPORE – ORAPI APPLIED (S) PTE LTD
No. 26 Tuas Avenue 13 - Singapore 638992
Tel. : +65 6265 2888 Fax : +65 6268 6474
E-mail : sin.sales@orapi.com.sg

THAILAND – ORAPI APPLIED (T) CO. LTD
55/75 Moo 9, Townplus Kaset-Nawamin Village, Klonglumjiak Road,
Klongkum, Buengkum Bangkok 10240 – THAILAND
Tel. : +66 2508 1342 Fax : +66 25081343
Email: info@ccsthailand.com

MALAYSIA – ORAPI APPLIED (M) SDN BHD
No. 10, Jalan PJU 3/49 - PJU 3, Sunway Damansara
47810 Petaling Jaya - Selangor, Malaysia
Tel. : +603 7805 3805 Fax : +603 7880 5805
E-mail : msia.sales@orapi.com.my

DUBAI - ORAPI MIDDLE EAST L.L.C.
729 Business Village Main Bldg B - PO Box 120509 Dubai UAE
Tel : +971 (0) 42942947 Fax : +971 (0) 42942948
Email : dxb.sales@orapi.ae

NORTHERN EUROPE

UNITED KINGDOM – ORAPI APPLIED LTD
Spring Road, Smethwick, West Midlands B66 1PT
Tel: +44 121 525 4000 Fax: +44 121 525 4919
Web: www.orapiapplied.com Email: info@orapiapplied.com

NETHERLANDS – ORAPI APPLIED NEDERLAND B.V.
Ondernemingsweg 16, 2404 HN Alphen aan den Rijn
Tel: +31 172 43 72 21 Fax: +31 172 43 69 01
Web: www.orapiapplied.nl Email: benelux@orapiapplied.com

BELGIUM – ORAPI APPLIED BELGIUM S.A.
Kapelsesteenweg 292 - 2930 Brasschaat
Tel. : +32 2 2800 736 E-mail : sales@orapiapplied.be

NORWAY – ORAPI NORDIC NORWAY NUF
Vaksala – Eke Hus C - 755 94 UPPSALA
Tel. : +47 333 66 000
E-mail : info@orapi.se

FINLAND – ORAPI NORDIC OY AB
Salpakuja 6, 01200 Vantaa
Tel: +358 9 894 6430 Fax: +358 9 8946 4322
Web: www.orapinordic.net Email: sales@orapinordic.net

SWEDEN – ORAPI NORDIC OY AB
Vaksala – Eke Hus C - 755 94 UPPSALA
Tel. : +46 18 506 010 Fax : +46 18 500 910
Web : www.orapi.se E-mail : info@orapi.se

POLAND – ORAPI TRANSNET SP. z o.o.
ul. Sremska 75a - 62-050 Mosina - Polska
Tel. : +48 61 813 86 40 Fax : +48 61 813 86 91
E-mail : mariusz.polkowski@orapi.com

PACIFIC

AUSTRALIA – ORAPI PACIFIC-VICTORIA LUB PTY LTD
Factory 24, 29-39 Kirkhan Road West, Keysborough, PO Box 816, Victoria 3173
Tel: +613 9701 5373 Fax: +613 9701 5532
Email: info@viclube.com.au

MAURITIUS – ORAPI PACIFIC PROLUB CIE LTD
62 Pailles Road, Port Louis
Tel: +230 208 1477 Fax: +203 210 7370
Email: admin.prolub@intnet.mu

NEW CALEDONIA – ORAPI PACIFIC SFAC SARL
27 rue Ampère, ZI Ducos, BP 3725, 98846 Nouméa Cedex
Tel: +687 25 15 40 Fax: +687 27 20 67 Email: sfac@sfac.nc

SOUTH AFRICA – ORAPI PACIFIC – ORAPI AFRICA LTD
228 Albert Amon Road, Millenium Business Park Meadowdale Ext. 7,
1609 Gauteng
Tel: +27 11 453 17 13 Fax: +27 11 453 32 79
Email: info@orapiafrica.co.za

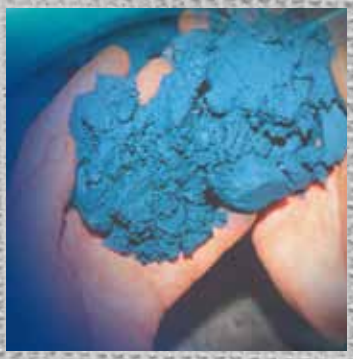
TAHITI / FRENCH POLYNESIA – ORAPI PACIFIC TECHNIPAC SARL
Z.I Vallée de la Tipaerui, BP 1706, 98713 Papeete
Tel: +689 74 57 33 Fax: +689 45 04 04
Email: schatt.technipac@mail.pf

AMERICA

CANADA – ORAPI CANADA LTD
7521 Henri Bourassa Est,
Montreal Quebec H1E 1N9
Tel: +1 514 735 32 72 Fax: +1 514 735 8550
Email: jeanf@orapi-canada.com













GRAMOS®

Orapi Applied Limited
Spring Road, Smethwick, West Midlands
B66 1PT, United Kingdom
Tel: +44 (0) 121 525 4000
Fax: +44 (0) 121 525 4919
info@orapiapplied.com

A BRAND OF THE ORAPI® GROUP