



## FOR ALL AREAS OF ELECTRICAL ENGINEERING

CRAMOLIN-QUALITY FOR MAINTENANCE,  
REPAIR AND OVERHAUL



**CRAMOLIN** 

SOLUTION AT THE PUSH OF A BUTTON





**PLASTIK**

Transparent  
protective coating  
for PC boards  
and electronic  
components

**SPRAYOIL**

CRANGLER

**BOOSTER**

High pressure spray  
- Extra strength  
- Wash thinner

# PROVEN AND IN DEMAND FOR DECADES



## EXPERIENCE IS THE KEY TO SUCCESS

CRAMOLIN has stood for quality in the development and manufacture of products for the production, maintenance and assembly of electrical systems and devices for more than 50 years. Much has changed in the field of electronics over the years, but the products of CRAMOLIN are still first choice with service technicians, production managers and in customer service. This is because price and quality are right. The most important thing is CRAMOLIN's motto: Solution at the push of a button.



## CERTIFICATION BREEDS CONFIDENCE

Quality at CRAMOLIN is more than just a marketing slogan. All our company processes are certified by the German Industrial Standards Institute (DIN). This gives users the guarantee that our products meet high standards and are safe to use. This is signed and sealed.



## ITW: EXTENDED COMPETENCE

CRAMOLIN is a brand name fostered by the major international ITW company. It unites many top companies in the fields of technology and industry. For customers this means concentrated resources in the areas of manufacture, research, procurement and sales. With advantages in the quality, practicality, product documentation, availability and price. Our strengths are ultimately your benefits.



## CRAMOLIN: SOLUTIONS FROM RESEARCH TO PRODUCTION

Every electrical engineering technician is familiar with the classic CRAMOLIN spray can containing 200 or 400ml. CRAMOLIN products are also being used increasingly in production. CRAMOLIN also delivers bulk containers especially for this purpose. These are also useful for economically minded people in the areas of maintenance, repair and service.



## SAFETY IS A HUGE PRIORITY

Application safety and work safety are in good hands with CRAMOLIN. Material safety data sheets and technical data sheets are available on the Internet at [www.itwcp.de](http://www.itwcp.de) and print them out if necessary. It leaves no detailed questions open. No other manufacturer offers more.



## ENVIRONMENTAL PROTECTION – A PART OF OUR PHILOSOPHY

Chemical substances must be handled responsibly. CRAMOLIN ensures that the raw materials are largely environmentally-friendly. An active ingredient which has little or no harmful effect is used wherever possible. CRAMOLIN develops and researches for the preservation and protection of our natural environment.



# CLEANER

## CLEANER

### Universal deaner for electronics.

The effect of CLEANER is based on very high quality, effective and specially mixed solvents. CLEANER evaporates quickly and leaves no residue behind. CLEANER can be used universally thanks to its special formulation of ingredients.



#### CLEANER

Colour	Colourless, clear
Smell	Alcohol
Density	0.67g/cm <sup>3</sup>
Evaporation	Rapid
Residue	None
Compatibility with plastic	Good
Surface tension	22mN/m
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml
Art. No. 200ml	1021411
Art. No. 400ml	1021611



## CONTACLEAN

### Highly effective, oxide and sulphide dissolving contact cleaner.

CONTACLEAN effectively eliminates oxide and sulphide layers from all kinds of metal surfaces. At the same time our special ingredients provide a lasting lubrication and corrosion protection. Contact resistances which result in failures are reduced. Without voltage drops. Preservation of the perfect operational reliability of all electrical contacts.



#### CONTACLEAN

Colour	Reddish
Smell	Characteristic
Density	0.73g/cm <sup>3</sup>
Reduction of the contact resistance	< 2mΩ
Temperature resistance	up to + 80°C
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml
Art. No. 200ml	1011411
Art. No. 400ml	1011611

## CD CLEANER

### Cleaning of DVDs, CDs and CD drives.

CD CLEANER is a mild cleaner for the reliable removal of fingermarks, nicotine, dirt and grease stains. Because of its character it also removes grease and oil as well as layers of dirt reliably. For optimum digital reproduction both the laser head and the CD/DVD or Blu-ray disc have to be cleaned. Thanks to its low surface tension and perfect solvent combination, CD CLEANER penetrates deeply into the dirt, dissolves it and restores the reproduction for a perfect digital sound. It has an excellent material compatibility and evaporates totally without leaving any residue.



#### CD CLEANER

Colour	Colourless, clear
Smell	Alcohol
Density	0.79g/cm <sup>3</sup>
Evaporation	Rapid
Residue	None
Material compatibility	Very good
Purity	99.9%
Container sizes	200ml
Quantity/box	12 spray cans 200ml
Art. No. 200ml	1421411

## ISOPROPANOL

### Mild, universal cleaner with a purity of >99.9%.

ISOPROPANOL is a mild, universally applicable cleaner for the reliable removal of dirt and grease. Because of its character it removes both grease and oil as well as ionic contamination. It does not attack most common materials and evaporates totally without leaving any residue within a very short time.



#### ISOPROPANOL

Colour	Colourless, clear
Smell	Alcohol
Density	0.78g/cm <sup>3</sup>
Evaporation	Rapid, complete
Residue	None
Material compatibility	Very good
Purity	99.9%
Container sizes	200ml, 400ml, 1l
Quantity/box	12 spray cans 200ml, 400ml, 12 cans 1l
Art. No. 200ml	4021411
Art. No. 400ml	4021611
Art. No. 1l	402841

## TUNER

### Special cleaner for entertainment electronics.

TUNER cleans effectively, reliably and without harming electrical devices and modules. Residues such as dust, greasy dirt, nicotine etc. can be removed without effecting the electrical capacitance and frequency values. Due to the low surface tension the solvents penetrate deeply into surfaces. TUNER dries rapidly and leaves no residue behind.



#### TUNER

Colour	Colourless, clear
Smell	Characteristic fresh
Density	0.67g/cm <sup>3</sup>
Evaporation	Rapid
Residue	None
Surface tension	19mN/m
Compatibility with plastic	Very good
Container sizes	200ml
Quantity/box	12 spray cans 200ml
Art. No. 200ml	1041411



# CLEANER

## SPRAYWASH

### Spraywash for cleaning soiled contacts and components.

SPRAYWASH consists of a highly effective combination of solvents for the effective removal of coats of dirt or grease and oxidized layers. Good creep and flow properties lead to dirt being washed away easily when used properly. SPRAYWASH does not attack most common materials and evaporates quickly without leaving any residue.



### SPRAYWASH

Colour	Colourless, clear
Smell	Alcohol
Density	0.75g/cm <sup>3</sup>
Evaporation	Medium
Residue	None
Compatibility with plastic	Good
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml

Art. No. 200ml	1051411
Art. No. 400ml	1051611



# PROTECTIVE AND LUBRICATING AGENTS

## DEGREASER

**Very effective cleaner, removes grease and oil.**

The special mixture of solvents in DEGREASER guarantees a fast and reliable removal of grease and oil. The product works equally and effectively against wax and other heavy contamination. DEGREASER also is moisture-/water repellent.



### DEGREASER

Colour	Colourless, clear
Smell	of solvent
Density	0.83g/cm <sup>3</sup>
Evaporation	Medium
Residue	None
Material compatibility	Good
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml
<b>Art. No. 200ml</b>	<b>1061411</b>
<b>Art. No. 400ml</b>	<b>1061611</b>

## FLUX-OFF

**Effectively removes residue solder from printed circuit boards.**

FLUX-OFF is a mild but effective cleaner which removes even stubborn solder flux residues without any problems. It makes no difference whether the flux is rosin based or water-soluble. FLUX-OFF is colourless and leaves no residue behind. It does not attack the most common materials. However, you should avoid using it on PVC and polystyrene. Also available with a brush for intensive cleaning.



### FLUX-OFF

Colour	Colourless, clear
Smell	Mild
Density	0.84g/cm <sup>3</sup>
Evaporation	Residue-free
Material compatibility	Very good
Surface tension	22mN/m
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml
<b>Art. No. 200ml</b>	<b>1071411</b>
<b>Art. No. 400ml</b>	<b>1071611</b>

## TOP-PIN

**Protection for ensuring the function of plug contacts.**

TOP-PIN is the protection agent and lubricant for ensuring the function of all contacts, especially precious metal-plated plug contacts. It offers good lubricating and corrosion protection properties based on synthetic active ingredients. Damage to precious metal layers is prevented; there is no corrosion of non-precious base metals. The protective film of TOP-PIN has a lubricant effect, is very thin and resistant to heat.



### TOP-PIN

Colour	Yellowish
Smell	of solvent
Density	0.67g/cm <sup>3</sup>
Temperature resistance (film)	up to +300°C
Corrosion protection	4 cycles (DIN IEC 68)
Lubricity under pressure	Very good
Container size	200ml
Quantity/box	12 spray cans 200ml
<b>Art. No. 200ml</b>	<b>1101411</b>

## SILICONE

**Viscous, highly effective insulating and lubricating oil.**

SILICONE is a high-quality, viscous insulating oil with a dielectric strength of 12kV/mm. It does not dry out, is water-repellent and therefore suitable as a moisture barrier. SILICONE is also a good universal lubricant. It is resistant within a wide temperature range of -50°C up to +200°C, does not attack the most common engineering materials and is non-toxic.



### SILICONE

Colour	Colourless, clear
Smell	Typical mild
Density	0.97g/cm <sup>3</sup>
Viscosity (oil)	1,000mm <sup>2</sup> /s (25°C)
Temperature resistance	-50° to +200°C
Dielectric strength (oil)	12kV/mm (20°C)
Material compatibility	Very good
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 400ml
<b>Art. No. 200ml</b>	<b>1121411</b>
<b>Art. No. 400ml</b>	<b>1121611</b>



# PROTECTIVE AND LUBRICATING AGENTS

## SPRAYOIL

### Multifunctional lubricating oil and corrosion protection.

SPRAYOIL is a highly effective, low viscosity, acid free lubricant showing very good emergency running properties. The lubricating film is resistant and does not become gummy. It also has a water and moisture repellent effect and therefore gives lasting and reliable corrosion protection. SPRAYOIL is effective within a wide temperature range of -40 °C to +170 °C. Meets the requirements of standard ISO VG 10.



#### SPRAYOIL

Colour	Yellowish
Smell	Typical mild
Density	0.78g/cm <sup>3</sup>
Viscosity (oil)	10mm <sup>2</sup> /s (40°C)
Pour point	-57°C (DIN ISO 3016)
Material compatibility	Good
Temperature resistance	-40°C up to +170°C
Container sizes	200ml
Quantity/box	12 spray cans 200ml

Art. No. 200ml 1111411





## SPRAYFLON

**Grease-free, PTFE-based lubricant and mold release agent.**

SPRAYFLON is a highly effective dry lubricant on PTFE basis. It offers a low friction coefficient and has anti-adhesive properties on plastic, glass, metal, wood or other materials. SPRAYFLON is resistant within a wide temperature range of -100°C up to +250°C, stable against chemicals, electrically insulating and enables clean working.



### SPRAYFLON

Colour	Whitish
Smell	of solvent
Density	0.72g/cm <sup>3</sup>
Material compatibility	Very good
Temperature resistance	up to +250°C
Container sizes	200ml
Quantity/box	12 spray cans 200ml

Art. No. 200ml 1131411

## VASELINE

**Effective lubricant, good corrosion protection.**

VASELINE consists of a high purity, white Vaseline which can be applied easily in the available spray form. It is totally acid-free and therefore guarantees an effective corrosion protection. It also offers excellent lubricating properties which can be used universally. VASELINE is chemically neutral towards all materials.



### VASELINE

Colour	White
Smell	of solvent
Density	0.73g/cm <sup>3</sup>
Material compatibility	Very good
Skin compatibility	Very good (DAB 10)
Solidification point	approx. +53°C (DIN ISO 2207)
Container sizes	200ml
Quantity/box	12 spray cans 200ml

Art. No. 200ml 1141411

## PROTECTION

**Lubricant and corrosion protection for contacts.**

PROTECTION contains a combination of active ingredients for lasting prevention of wear and corrosion on metal contact surfaces. The treated parts are coated with a stable, micro-fine film which ensures good lubricant and corrosion protection properties. PROTECTION is suitable for all contact metals and does not attack the most common engineering materials.



### PROTECTION

Colour	Bluish
Smell	Alcohol
Density	0.73g/cm <sup>3</sup>
Material compatibility	Very good
RK value increase after treatment	Max. 1mΩ
Viscosity	67.4mm <sup>2</sup> /s
Pour point	-9°C
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml

Art. No. 200ml 1151411

Art. No. 400ml 1151611

## MULTI

**Multifunctional oil dissolves rust, cleans, repels water, protects and lubricates.**

Multifunctional combination of active ingredients for solving problems in industry and in the workshop. MULTI repels water, prevents corrosion, dissolves rust, cleans, lubricates moving parts, eliminates squeaking, starts wet engines and guarantees continuous functioning. MULTI does not attack rubber, plastics, textiles and lacquers and contains no harmful substances.



### MULTI

Colour	Yellowish, slightly turbid
Smell	Vanilla
Density	0.81g/cm <sup>3</sup>
Viscosity (oil)	30-35mm <sup>2</sup> /s (40°C)
Corrosion protection	up to 500 h (salt spray test)
Lubricity	up to 790kg (Falex)
Container sizes	200ml, 400ml, 5l, 20l
Quantity/box	12 spray cans 200ml, 400ml, 4 canisters 5l, 1 canister 20l

Art. No. 200ml 1161411

Art. No. 400ml 1161611

Art. No. 5l 116854

Art. No. 20l 116860

# PROTECTIVE AND LUBRICATING AGENTS

## KABELGLIDE

### Lubricant for pulling in cables and wires.

KABELGLIDE is a high-grade lubricant for pulling cables and wires easily through electric installation tubes. The 70 cm long, flexible extension tube delivered with KABELGLIDE is simply fixed to the spray nozzle and guarantees easy spraying of the inside walls of installation tubes. KABELGLIDE does not dry out, is water-repellent and therefore suitable as a moisture buffer. It is resistant within a wide temperature range of -50 °C up to +200 °C, does not attack plastics and construction materials and is non-toxic.

#### KABELGLIDE

Colour	Colourless, clear
Density	0.97g/cm <sup>3</sup>
Viscosity (oil)	1,000mm <sup>2</sup> /s (40°C)
Temperature range	-50°C to +200°C
Container sizes	400ml
Dielectric strength	12kV/mm
Material compatibility	Very good
Quantity/box	12 spray cans 400ml
Art. No. 400ml	1511611





## KABEL-GEL

### Pulling in cables made easy.

KABEL-GEL is a silicone-free lubricant which makes pulling cables and wires into electrical installation tubes and ducts easier and faster. KABEL-GEL does not stick, does not dry out and helps to avoid damage to cable and wire sheaths. KABEL-GEL does not attack plastics and the most common engineering materials and is biodegradable.



#### KABEL-GEL

Colour	Colourless, clear
Density	0.99g/cm <sup>3</sup>
Temperature resistance	up to +82°C
Viscosity	Gel-like
Container sizes	1,050ml
Quantity/box	12 bottles 1,050ml

Art. No. 1,050ml 154841

## PROLUB

### Cleaning, protection and lubricating agent for electrical installations.

PROLUB is a mixture of high quality, active ingredients especially for preventing and eliminating defects in electrical installations caused by moisture corrosion, soiling or friction. Thanks to its low surface tension and excellent creep properties, PROLUB also reaches places of difficult access and penetrates into finest surface pores and gaps where it seals out moisture.



#### PROLUB

Colour	Brownish
Smell	Characteristic mild
Density	0.82g/cm <sup>3</sup>
Viscosity	3mm <sup>2</sup> /s (20 °C)
Temperature range	-40° to +150°C
Dielectric strength	(VDE 0303) 31.5kV/mm
Container sizes	200ml, 400ml, 5 l, 20l
Quantity/box	12 spray cans 200ml, 400ml, 4 canisters 5l, 1 canister 20l

Art. No. 200ml 1601411  
Art. No. 400ml 1601611  
Art. No. 5l 160854  
Art. No. 20l 160860

## ANTIKORR

### Highly effective, active corrosion protection oil.

ANTIKORR combats moisture, repels water and protects against corrosion even under the harshest environmental conditions. Due to the low surface tension and excellent creep properties, ANTIKORR also reaches places of difficult access and penetrates into the finest surface pores and gaps. The remaining film is practically invisible and does not need to be removed in most cases for further processing of the parts (except lacquering).

Complies with  
Mil. Spec.:  
C-81309E,  
C-372C,  
AA-50493,  
O-W-1284B



#### ANTIKORR

Colour	Blue-green
Density	0.80g/cm <sup>3</sup>
Viscosity	3 mm <sup>2</sup> /s (20 °C)
Temperature resistance	up to +150°C
Lubricity	up to 790kg
Container sizes	200ml, 400ml, 5l, 20l
Quantity/box	12 spray cans 400ml, 4 canisters 5l, 1 canister 20l

Art. No. 400ml 1631611  
Art. No. 5l 163854  
Art. No. 20l 163860

## MOLD RELEASE AGENT 99

### Silicone-free solution for separating rubber and plastic parts.

MOLD RELEASE AGENT 99 is a silicone-free mold release agent based on polyethylene glycol for forming plastics and rubber. It covers the entire mold and gives the rubber and plastic parts an attractive surface appearance. MOLD RELEASE AGENT 99 also serves for moisture and as a release agent for the often difficult forming of foam rubber parts. It does not attack rubber and plastics and is not harmful or irritant.



#### MOLD RELEASE AGENT 99

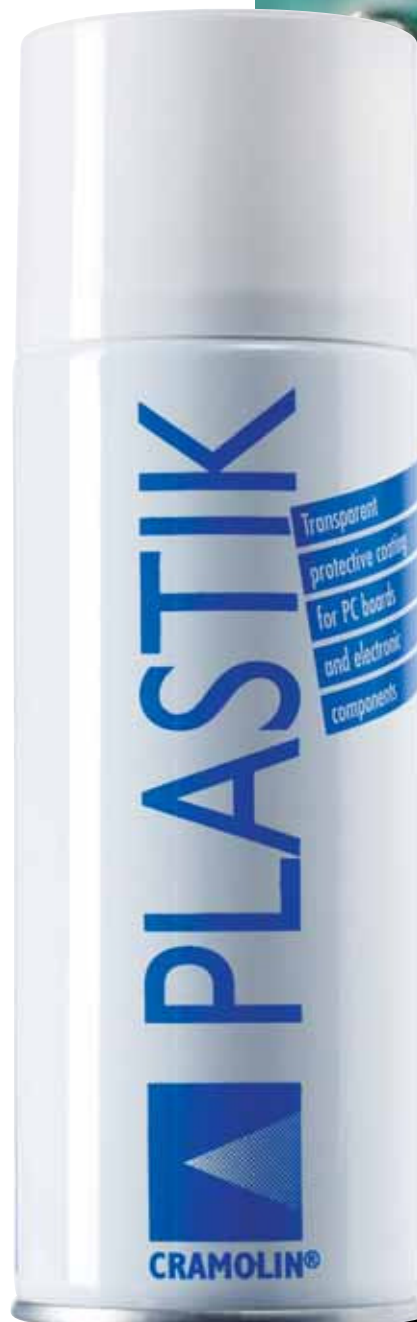
Colour	Colourless, clear
Smell	Characteristic
Density	0.89g/cm <sup>3</sup>
Viscosity	Low viscous
Flashpoint	approx. 13°C
Properties	Silicone-free
Container size	10l
Quantity/box	1 Canister 10l

Art. No. 10l 801880

## PLASTIK

### Clear lacquer for insulating and sealing.

PLASTIK contains a high quality acrylic resin lacquer. It coats surfaces with a protective film which is resistant to acids, alkalis, alcohols, moisture and adverse environmental influences. PLASTIK is resistant within the wide temperature range of  $-70^{\circ}\text{C}$  up to  $+120^{\circ}\text{C}$ . The lacquer adheres to metal, plastic, wood, cardboard, glass, etc. It does not drip and permits soldering through its own layer. PLASTIK contains a UV indicator for quality control. PLASTIK meets MIL-I-460580 "Type Acrylic Resin".



#### PLASTIK

Colour	Transparent
Smell	of solvent
Density	$0.88\text{g/cm}^3$
Surface resistance	$5 \times 10^{14}\Omega$
Contact resistance	$10^{14}\Omega/\text{cm}$
Dielectric strength	$21\text{kV/mm}$
Leakage current resistance (CTI)	$> 600\Omega$
Temperature resistance (Class E $-70^{\circ}\text{C}$ acc. to VDE 0360)	up to $+120^{\circ}\text{C}$
Container sizes	200ml, 400ml, 1l, 5l, 20l
Quantity/box	12 spray cans 200ml, 400ml, 12 cans 1l, 4 canisters 5l, 1 canister 20l, 1 barrel 200l
Art. No. 200ml	1201411
Art. No. 400ml	1201611
Art. No. 1l	120841
Art. No. 5l	120854
Art. No. 20l	120860
Art. No. 200l	1208701



## URETHANE CLEAR

### Special resistant protective and insulating lacquer.

URETHANE CLEAR is a single-component urethane lacquer for electronics. It offers high surface and contact resistances, good dielectric strength, low dielectric constant and loss factors. Resistant to moisture, dilute acids and alkalis, solvents and fungus attack. The film is elastic, wear and adhesion resistant, heavy duty and permits soldering through its own layer.



#### URETHANE CLEAR

Colour	Slightly yellowish
Density	0.80g/cm <sup>3</sup>
Surface resistance	2.5 x 10 <sup>12</sup> Ω
Contact resistance	5.1 x 10 <sup>14</sup> Ω
Dielectric strength	82.9kV/mm
Temperature range	-40°C to +130°C Cl. B according to VDE 0360
Container sizes	200ml, 400ml, 1l, 5l
Quantity/box	12 spray cans 200ml, 400ml, 12 cans 1l, 4 canisters 5l
Art. No. 200ml	1211411
Art. No. 400ml	1211611
Art. No. 1l	121841
Art. No. 5l <sup>1)</sup>	121854

## URETHANE RED

### Highly resistant, coloured insulating lacquer.

URETHANE RED is a single-component urethane lacquer for electronics. It offers high surface and contact resistances, good dielectric strength, low dielectric constant and loss factors. Resistant to moisture, dilute acids and alkalis, solvents and fungus attack. The film is elastic, wear and adhesion resistant, heavy duty and permits soldering through its own layer. Class B according to VDE 0360.



#### URETHANE RED

Colour	Red, covering
Density	0.80g/cm <sup>3</sup>
Surface resistance	10 <sup>12</sup> Ω
Contact resistance	8 x 10 <sup>13</sup> Ω
Dielectric strength	35kV/mm
Temperature range	-40°C to +130°C Cl. B according to VDE 0360
Container sizes	400ml
Quantity/box	12 spray cans 400ml
Art. No. 400ml <sup>1)</sup>	1651611

## ISOTEMP

### Very temperature resistant silicone insulating lacquer.

ISOTEMP is a heat, moisture and water resistant insulating lacquer. It retains its effect even at temperatures up to 500 °C. It is also flame retardant, highly adhesive and elastic. ISOTEMP is suitable for moisture sealing and for impregnation. The lacquer works well at room temperature and takes rapid effect.



#### ISOTEMP

Colour	Yellowish, slightly turbid
Density (film)	0.80g/cm <sup>3</sup>
Dielectric strength	110kV/mm
Continuous temperature	-45°C
resistance	to +500°C
Spec. contact resistance	7.5 x 10 <sup>16</sup> Ω/cm
Container sizes	200ml, 1l
Quantity/box	12 spray cans 200ml, 12 cans 1l
Art. No. 200ml	1221411
Art. No. 1l <sup>1)</sup>	122841

## EMILAC

### Effective shielding of electromagnetic influences.

EMILAC is a highly conductive coating based on silver-plated copper particles for shielding against electromagnetic waves. Protects against electromagnetic interferences (EMI) and electrostatic discharges (ESE). EMILAC is easy to apply and has a high stability even under adverse environmental conditions such as heat and moisture. It bonds well, does not attack materials and dries quickly.



#### EMILAC

Colour	Copper coloured
Density	0.60g/cm <sup>3</sup>
Surface resistance	< 0.25Ω/mm <sup>2</sup> at 50µm Coat thickness
Damping	60 - 65dB at 50µm according to ASTM ES 7-83
Operating temperature	-40°C to +95°C
Drying time	dust dry after 10 minutes
Container sizes	200ml, 1l
Quantity/box	12 spray cans 200ml, 12 cans 1l
Art. No. 200ml	1241411
Art. No. 1l	124841

1) Other container sizes available on request.

## POSITIV RESIST

### Photocopy lacquer for making printed circuits.

POSITIV RESIST is a light-sensitive coating for transfer ring lines, shapes and contours. The accurate copying of image elements on different materials is possible by a relatively simple technique. POSITIV RESIST ensures easy work, quick drying, good contrast and high sharpness.



#### POSITIVE RESIST

Colour	Dark violet
Density	0.85g/cm <sup>3</sup>
Drying time	30 - 60min (20°C)
Light sensitivity	between 310 and 440nm Max. between 330 and 420nm
Container sizes	200ml, 1l
Quantity/box	12 spray cans 200ml, 12 cans 1l
sprayable/flingable	
Art. No. 200ml	1261411
Art. No. 1l	126841SP
Art. No. 1l	126841SC

## ZINK

### Ideal cold galvanisation for assembly and industry.

ZINK is a quick drying, good covering, highly adhesive, heat and weather resistant long-term protection against rust and corrosion for exposed ferrous metals. The coating forms a resistant metal film and offers double protection by the refined artificial resin and by electromechanical reaction or cathodic effect of the zinc pigments. ZINK forms a conductive intermediate layer during welding and can be used as a primer for lacquering.



#### ZINK

Colour	Dark grey
Density	0.95g/cm <sup>3</sup>
Drying time	30min grippable, 24h compl. dry
Bend test (DIN 53152)	No change in the surface
Cross hatch (DIN 53151)	Gt 0 - 1
Salt mist test (DIN 53167, DIN 50021)	app. 600 - 800h
Temperature resistance	up to +500°C
Container sizes	400ml
Quantity/box	12 spray cans 400ml
Art. No. 400ml	1271611

## GRAPHITE

### Graphite-based lubricant lacquer.

GRAPHITE is an easy to use lubricating lacquer based on colloidal graphite for producing good adhesive, conductive layers. GRAPHITE adheres very well to smooth surfaces such as glass and plastic. Layers of GRAPHITE are temperature-resistant up to 300°C. The resistance is 1,000 to 2,000 Ω depending on the layer thickness.



#### GRAPHITE

Colour	Black-grey
Density	0.88g/cm <sup>3</sup>
Drying time	24h completely dry
Area resistance	1,000 to 2,000Ω
Operating temperature	-40°C to +400°C
Container sizes	200ml
Quantity/box	12 spray cans 200ml
Art. No. 200ml	1281411

## FREEZER-TOP/ FREEZER-BR

### For thermal fault diagnosis, cooling up to -50°C, non-flammable.

FREEZER-TOP guarantees quick and reliable cooling down to -50°C, does not burn, evaporates immediately and leaves no residue. FREEZER-TOP is compatible with all materials, the proven and reliable source of freezing for all areas of application.

FREEZER-BR guarantees quick, reliable cooling down to -50°C, evaporates immediately and without leaving any residue. FREEZER-BR is compatible with all materials, the low cost source of freezing for standard applications.

#### FREEZER TOP/FREEZER BR

Smell	Odourless
Dens. Freezer TOP	1.20g/cm <sup>3</sup>
Dens. Freezer BR	0.54g/cm <sup>3</sup>
Evaporation	Complete
Achievable temperature	at least -50°C
Flashpoint	
Freezer TOP	Non-flammable
Freezer BR	< 0°C
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 400ml
Freezer TOP	
Art. No. 200ml	1301411
Art. No. 400ml	1301611
Freezer BR	
Art. No. 200ml	1461411
Art. No. 400ml	1461611





# SPECIAL SPRAYS

## BOOSTER/BOOSTER ALL-WAY

**Extra-strong aerosol for very stubborn dirt – non-flammable**

BOOSTER and BOOSTER ALL-WAY are extra strong, non-flammable pressurised gases for professional use wherever stubborn dusty contamination has to be removed reliably, thoroughly and safely. The unique technology ensures that the resulting pressure is four times that of normal compressed air sprays.

With the new valve technology the BOOSTER ALL-WAY can be used in any position, even upside down.



### BOOSTER/BOOSTER ALL-WAY

Density	1.20g/cm <sup>3</sup>
Pressure	5.3bar (+20°C)
Flashpoint	Non-flammable
Evaporation	Complete

### BOOSTER

Container sizes	500g
Quantity/box	12 spray cans
	500g

**Art. No. 500g 1481711**

### BOOSTER ALL-WAY

Container sizes	300g
Quantity/box	12 spray cans
	300g

**Art. No. 300g 1491511**



## DUSTER TOP

**For cleaning at places of difficult access – non-flammable.**

DUSTER-TOP releases high pressure, non-flammable, leaves no residues and does not attack the most common materials. The safe, proven way to remove dust.



### DUSTER TOP

Smell	Odourless
Density	1.20g/cm <sup>3</sup>
Pressure	4.8bar (+20°C)
Flashpoint	Non-flammable
Evaporation	Complete
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml

Art. No. 200ml 1311411  
Art. No. 400ml 1311611

## DUSTER BR

**For cleaning at places of difficult access.**

DUSTER-BR releases high gas pressure, leaves no residues and does not attack the most common materials. The safe, proven way to remove dust.



### DUSTER BR

Smell	Odourless
Density	0.55g/cm <sup>3</sup>
Pressure	4.8bar (+20°C)
Flashpoint	Flammable
Evaporation	Complete
Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 12 spray cans 400ml

Art. No. 200ml 1471411  
Art. No. 400ml 1471611

## GUNOIL

**High quality lubricating, protection and cleaning oil.**

CRAMOLIN GUNOIL is a high quality lubricating, protection and cleaning oil for all types of firearms. Its special formula makes GUNOIL highly effective.



### GUNOIL

Colour	Blue-green
Density	0.89g/cm <sup>3</sup>
Viscosity	3mm <sup>2</sup> /s
Lubricity	up to 790kg
Long-term resistance	up to 9 months
Suitable for	all kinds of firearms
Heat resistance	up to 150°C
Container sizes	200ml
Quantity/box	12 spray cans 200ml

Art. No. 200ml 1171411

## GLASSCLEAN

**For removing layers of dirt from glass, metal and plastic surfaces.**

GLASSCLEAN removes dirt, dust, nicotine, oil, grease and insect remains and fingermarks easily from all types of glass and plastic surfaces. The solid foam does not run off even on vertical surfaces and has an antistatic effect.



### GLASSCLEAN

Colour	White foam
Smell	Fruity
Density	0.90g/cm <sup>3</sup>
Foam stability	Very good Several minutes
Material compatibility	Very good with glass and metal good with plastic surfaces
Container sizes	400ml
Quantity/box	12 spray cans 400ml

Art. No. 400ml 1401611

# SPECIAL SPRAYS

## SCREEN TFT/SCREEN

**SCREEN TFT is a foam cleaner for plasma and LCD screens with an antistatic effect.**

SCREEN TFT is especially suitable for gentle but effective cleaning of modern flat screens. The stable cleaning foam does not run off even on vertical surfaces and removes even stubborn, greasy layers of dirt without smearing and without harming screen surfaces. SCREEN TFT is alcohol free and therefore indispensable in the office and at home.

**SCREEN, the universal foam cleaner for copiers, glass surfaces and screens.**

SCREEN contains active solvent substances for removing layers of dirt on all types of glass surfaces. The active ingredients are bonded in a foam after spraying and do not run off. The antistatic effect considerably delays re-soiling. SCREEN cleans gently and thoroughly and without smearing.

### SCREEN TFT/SCREEN

Colour	White foam
Foam stability	Very good
Material compatibility	Glas, metal, hardened lacquers Unlimited Good, plastics such as acrylic glass, polycarbonate, ABS, PVC, polyamide

### SCREEN TFT

Container sizes	200ml
Quantity/box	12 spray cans 200ml

**Art. No. 200ml 1431411**

### SCREEN

Container sizes	200ml, 400ml
Quantity/box	12 spray cans 200ml, 400ml

**Art. No. 200ml 1321411**  
**Art. No. 400ml<sup>1)</sup> 1321611**





## ANTISTATIC

### Avoidance of electrostatic charges.

ANTISTATIC effectively prevents electrostatic charges on plastics and textiles. It forms an invisible, ultra-fine film after spraying, which does not affect or harm the surface when used properly.

ANTISTATIC provides highly effective, surface-active ingredients which have been developed and tested according to physical-chemical standards. ANTISTATIC considerably reduces the surface resistance.



#### ANTISTATIC

Colour	Colourless, clear
Smell	Fresh
Density	0.59g/cm <sup>3</sup>
Material compatibility	Very good
Temperature resistance	-50°C to +220°C
Thermal stability	Extremely high
Container sizes	200ml, 400ml,
Quantity/box	12 spray cans 200ml, 400ml,

Art. No. 200ml	1331411
Art. No. 400ml	1331611

## LABEL-OFF

### Removes adhesive labels easily and reliably.

LABEL-OFF makes it easy to remove adhesive paper-labels. The active ingredient penetrates the paper and neutralises the adhesive force of the glue. The residue adhesive can easily be wiped off with a cloth or piece of paper. Do not use on polystyrene or polyamide. It is recommended to test the effect on a small, invisible area if in doubt.



#### LABEL-OFF

Colour	Colourless, clear
Smell	of oranges
Density	0.69g/cm <sup>3</sup>
Evaporation speed	Medium
Material compatibility	(except for polystyrene, polyamide) Good
Container sizes	200ml, 400ml, 1l, 5l
Quantity/box	12 spray cans 200ml, 400ml, 12 cans 1l, 4 canisters 5l

Art. No. 200ml	1341411
Art. No. 400ml	1341611
Art. No. 1l	134841
Art. No. 5l <sup>1)</sup>	134854

## POLISHER

### Cleaning and freshening up all types of plastic surfaces.

POLISHER is a high-quality caring agent which cleans and seals surfaces. The effect is not based on abrasive substances but on special, alcohol-free solvents and polishers. The treated parts look fresh again after use and stay looking good for a long time afterwards. The antistatic effect clearly delays re-soiling.



#### POLISHER

Colour	Colourless, clear
Smell	of lemon
Density	0.72g/cm <sup>3</sup>
Evaporation speed	Medium
Material compatibility	Good
Cleaning	Very good for greasy, general, effect soiling, fingermarks, ballpoint pen ink
Container sizes	200ml
Quantity/box	12 spray cans 200ml

Art. No. 200ml	1351411
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## PRINTER

### Easily removes ink, paper and toner residue.

PRINTER contains an optimal mixture of solvents for removing ink and toner residue from inkjet- and laser-printers. Paper dust can be cleaned equally effectively from printer feed rollers. Annoying problems with the paper feed are eliminated. The antistatic effect delays re-soiling. PRINTER does not attack the most common materials and evaporates without leaving any residue.



#### PRINTER

Colour	Colourless, clear
Smell	of perfume
Density	0.69g/cm <sup>3</sup>
Evaporation speed	Rapid
Cleaning	Very good with grease, ink, toner and paper residue
Material compatibility	Good
Container sizes	200ml
Quantity/box	12 spray cans 200ml

Art. No. 200ml	1361411
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1) Other container sizes available on request.

# OTHER LEADING BRANDS FROM **ITW Spraytec®**

In addition to the CRAMOLIN products for overhaul, maintenance and repair of electronic devices, ITW Spraytec® offers many brands with an excellent reputation for trade and industry companies all over the world.



The brand for bonding, securing, sealing, testing, maintaining and repairing.



The international specialist for high quality lubricants and mold release agents.



Marking sprays and tapes as well as anti-slip coatings.



Industrial marking pens.



Cleaning systems for hands and parts.

