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YOUR PRACTICAL GUIDE IN KONTAKT CHEMIE PRODUCTS



A BROAD PRODUCT RANGE

As electronics are increasingly used in diverse fields, the KONTAKT CHEMIE product range meets the needs of:

TECHNICAL CLEANING

Whether it is a case of contacts inhibited by corrosion, or heavily soiled printed-circuit boards and electronic components, KONTAKT CHEMIE cleaning sprays quickly re-establish connections.

MAINTENANCE AND QUALITY ASSURANCE

KONTAKT CHEMIE offers a multiplicity of products, which are specially designed for the care of electronic and electrical equipment and guarantee their long term faultless operation.

RELIABLE AND LONG-LASTING PROTECTION

Moisture is the enemy of all electrical contacts. High quality products from KONTAKT CHEMIE protect against corrosion and keep the electronics operating even when the environment is not what it ought to be.

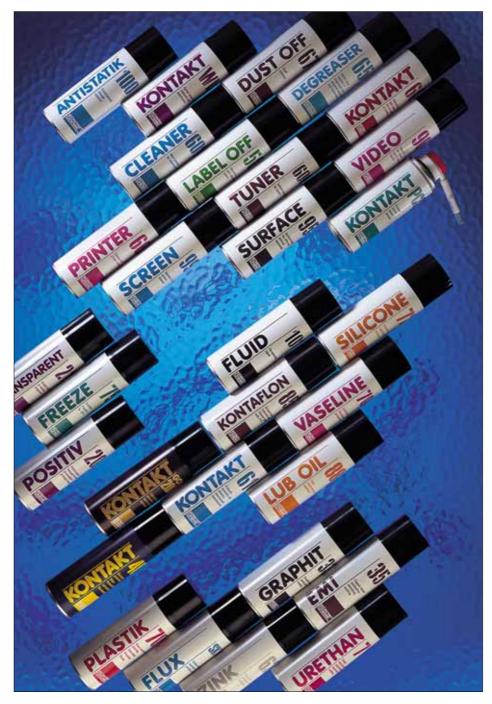
SPECIAL USES

KONTAKT CHEMIE sprays guarantee an effective protection with a high dielectric strength, keeping all components, printed-circuits, metals etc., clean, reliable and suitable.

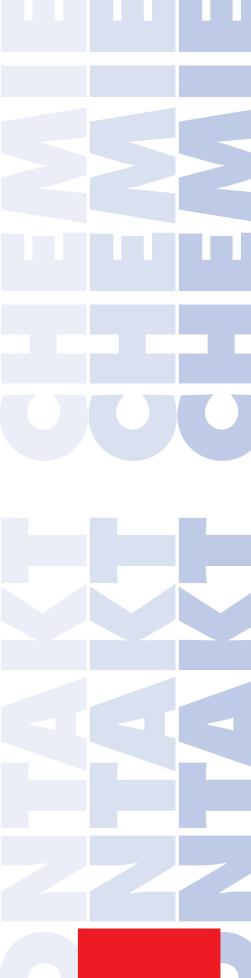
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5	VIDEO 90	, in the second	, i	•	•	
5	TUNER 600	,	•			
5	CLEANER 601	· ·			~	
6	PRINTER 66	,			•	
6	KONTAKT WL	· ·	·	~	~	
6	KONTAKT PCC	,		•	•	
7	LABEL OFF 50	· •		~	~	
7	DEGREASER 65	_		•	•	
7	KONTAKT IPA	•				12 ml. pe
8	SURFACE 95	_				12 IIII. po
8	SCREEN 99	· •	V			
8	SCREEN TFT	· ·	•			
8	ANTISTATIK 100	•			~	
4IR	DUSTERS					
		2	OSOL			
PAGE	PACKAGING	200 ml.	400 ml.			
9	DUST OFF 67	V	V			
9	DUST OFF a60	V				
9	JET CLEAN a60	~	100			
9	DUST OFF HF		400 g.			
.UE	BRICATION &		TECTIO		ILK	DILUENT
PAGE	PACKAGING	200 ml.	400 ml.	11.	5l.	11.
10	KONTAKT 61	~	✓	✓		
10	KONTAKT GOLD 2000	✓		✓		
11	KONTAKT 40	✓	✓		✓	
11	LUB OIL 88	~		✓		
11	KONTAFLON 85	~		✓	✓	~
12	FLUID 101	~				
12	KONTAKT 701	~				
12	SILICONE 72	~		~		
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PAGE		AERO	OSOL			
PAGE	PACKAGING	AER (200 ml.	OSOL	11.		11.
PAGE 13 13	PACKAGING EMI 35	200 ml.	250L 400 ml.	1l. •		
PAGE 13 13	PACKAGING EMI 35 GRAPHIT 33	200 ml.	250L 400 ml.	11.		11.
PAGE 13 13	PACKAGING EMI 35 GRAPHIT 33	200 ml.	400 ml.	11.	51.	11.
PAGE 13 13 PROPAGE	PACKAGING EMI 35 GRAPHIT 33 OTECTIVE CO	AERO 200 ml. ATING	050L 400 ml.	11.	51.	11.
PAGE 13 13 PR (PAGE 14	PACKAGING EMI 35 GRAPHIT 33 OTECTIVE CO PACKAGING	AERO 200 ml. AERO 200 ml.	050L 400 ml.	11. > BL 11.	51. ILK 51.	DILUENT 11.
PAGE 13 13	PACKAGING EMI 35 GRAPHIT 33 OTECTIVE CO PACKAGING PLASTIK 70 URETHAN 71 SILISOL 73	AERO 200 ml. AERO 200 ml.	050L 400 ml.	11. V	51. ILK 51.	DILUENT 11.
PAGE 13 13 PR PAGE 14 14 15	PACKAGING EMI 35 GRAPHIT 33 OTECTIVE CO PACKAGING PLASTIK 70 URETHAN 71 SILISOL 73 FLUX SK 10	AERO 200 ml. AERO 200 ml.	050L 400 ml.	11. V	51. ILK 51.	DILUENT 11.
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PAGE 14 14 15 15 15	PACKAGING EMI 35 GRAPHIT 33 OTECTIVE CO PACKAGING PLASTIK 70 URETHAN 71 SILISOL 73 FLUX SK 10 ZINK 62	AERC 200 ml. AERC 200 ml.	250L 400 ml. 250L 400 ml.	11. > BL 11.	51. ILK 51.	DILUENT 11.
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CONTACT RESTORATION (in three steps)

Turn to page 19



All information is based on testresults by CRC Industries. All products should be tested for suitability on a particular application prior to actual use. CRC Industries makes no warranties of any kind concerning these data and has no liability for any productchange arising after issue of this publication.





KOC HANDBOOK - 3

CLEANING & CONTACT MAINTENANCE

KONTAKT 60

OXIDES DON'T STAND A CHANCE

KONTAKT 60, an oxide dissolving contact cleaner, is highly recommended to regenerate corroded, heavily used and soiled contacts. Low contact resistance is restored, thus guaranteeing low voltage drop at even lowest contact pressures.

FEATURES

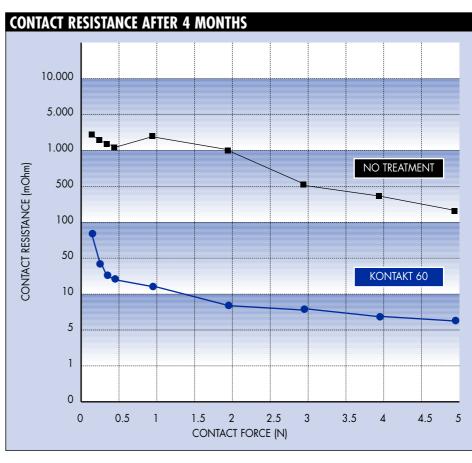
- Dissolves oxides on contacts, ready to be rinsed away with KONTAKT WL. Finally, KONTAKT 61 protects and lubricates the clean contact.
- Metals, graphite, carbon-based materials, thermoplastics, thermoset resins, insulators and other materials are not affected.
- A dielectric substance, which does not facilitate leakage currents.

-Colour: red -Flash point: < 0° C 0,77 g/cm³ -Density at 20° C: -Temperature resistance: up to 80° C

APPLICATIONS

- Ensures clean results in AF, RF and UHF technology and wherever electrical contacts need to be cleaned.
- Removes oxides from all kinds of metal contacts in radio and television service, electronics, automotive:
 - Switches
 - Plug and socket connectors
- Sockets of integrated circuits
- Lamp sockets
- Fuse holders
- Slide contacts of adjustable disk capacitors







VIDEO 90



ENSURES CLEAN MAGNETIC HEADS

VIDEO 90 can be used on tape recording equipment whenever abraded tape, dirt or other contaminants affect the sound and picture quality. VIDEO 90 has a very low surface tension which enables it to clean without leaving a residue. Small dust particles can cause significant sound and picture interference. These dust particles can be removed very easily from magnetic heads by using VIDEO 90.

FEATURES

- A very pure chemical formulation which does not attack tape coatings or other components and materials used in the equipment.
- Acts specifically on soiled magnetic heads.
- Fast evaporation rate, leaving no residue.

APPLICATIONS

- VIDEO 90 leaves magnetic heads clean and ensures sharp pictures and clear sound quality when cleaning:
 - Video recorders and Camcorders
 - Cassette recorders and answering machines
 - Tape and floppy disk drives of computers
 - Laser systems of CD-players
- Suitable for cleaning sensors (touch controls) and compact disks.
- The extension tube allows precise application, even when the video drum is difficult to reach.

TUNER 600



THE CLEANING SPRAY FOR HIGH QUALITY CONSUMER ELECTRONICS

TUNER 600 is especially designed to clean electrical equipment, electronic components and PC-boards of high frequency equipment with sensitive plastic parts.

The low surface tension of the carefully selected solvents used in TUNER 600 makes it penetrate into hard-to-reach areas.

FEATURES

- A high grade, pure product, which does not attack components.
- The finely balanced solvent combination enables TUNER 600 to clean dust, nicotine, greasy residues, etc..., from electrical equipment and electronic components.
- Dries quickly without leaving any residue.

APPLICATIONS

- A widely used problem cleaner, where sensitive plastics are involved, for:
 - High frequency technology
 - Sensitive switches, relays, sensors, modules, coil carriers and capacitors

CLEANER 601



A MILD MULTI-PURPOSE CLEANER

Cleaner 601 is designed for cleaning electronic components and precision mechanics, especially when sensitive plastics such as polystyrene or polycarbonate are involved. It has a low surface tension, which greatly accelerates the cleaning process.

FEATURES

- Extremely pure.
- Leaves no residues.
- Material compatible.
- Fast evaporation rate.
- Can reach normally inaccessible areas by using the extension tube.

APPLICATIONS

- In electronic maintenance, printed circuit boards can be cleaned safely, without attacking the coatings.
- Helps to safely remove soiling, dust, grease and other deposits, which can affect performance.
- Used in many fields of electronics and electrical engineering where sensitive components have to be cleaned with the utmost care.
- Suitable for:
 - PC- boards with sensitive components
 - Model railways
 - Optical assembly groups: mirrors, headlight mirrors

-Colour: colourless -Flash point: < 0° C -Density at 20° C: 0,66 g/cm³ -Surface tension: 17,5 mN/m -Colour: colourless
-Flash point: < 0° C
-Density at 20° C: 0,70 g/cm³
-Evaporation rate: 1,1 (ether = 1)

-Colour: colourless -Flash point: < 0° C -Density at 20° C: 0,67 g/cm³ -KB-value: 30

PRINTER 66



THE EFFECTIVE CLEANING AGENT FOR PRINTER HEADS

In order to maintain high standards of legibility in data processing print-outs, printer components must be kept clean. An effective cleaning agent is therefore of the utmost importance in this field. PRINTER 66 contains an anti-static additive to minimise dust attraction and damage due to electrostatic discharge, during long periods of time.

FEATURES

- An effective mixture of solvents, which dissolve and remove both ink residues and grease soiling.
- Abraded metal deposits, ribbon residues, hardened oils, greases and other soiling, which can interfere with performance, can all be removed by PRINTER 66.
- Degreases the whole printer unit.

APPLICATIONS

- Soiled components are sprayed directly and therefore cleaned effectively.
- In cases of heavy soiling, it is recommended that the rinsing solution is collected using a cloth or tissue.
- Can be used to clean and maintain various types of printers:
 - Daisywheel Printers
 - Dot Matrix Printers
 - Chain Printers
 - Golfball Printers
 - Thermal Printers
 - Ink-jet Printers

KONTAKT WL



THE SPRAY WASH ABLE TO DISSOLVE GREASE

KONTAKT WL, a cleaning agent, based on a solvent mixture ensuring a broad scope of effectiveness in prompt degreasing and cleaning of electronic components and electrical contacts.

FEATURES

- Dissolves and cleans without affecting most commonly used materials.
- Contacts which have been treated using KONTAKT 60 in order to dissolve corrosion products can then be rinsed using KONTAKT WL.
 - Finally, KONTAKT 61 protects the clean contact.
- Contaminants, resins and other residues can be removed easily.

APPLICATIONS

- Suitable for cleaning and degreasing most common types of electronic and electrical components:
- Plug and socket connectors
- Sliding and transfer contacts
- Commutators of electrical motors
- Relays

KONTAKT PCC



PROFESSIONAL LOOK FOR YOUR PRINTED CIRCUIT BOARDS, DISSOLVES FLUX RESIDUES

After soldering printed circuit boards, flux residues do not only look unaesthetically, but can also cause corrosion damage and electrical breakdown by leakage currents. Small solder particles, bonded by flux, can create short circuits.

FEATURES

- Removes all types of flux, without leaving any residue.
- Dries guickly.
- Compatible with solder resist coatings and most printed circuit board base materials.
- Ensures perfectly clean printed circuit boards.
- Ensures better resistance against formation of surface leakage paths.
- Ensures high insulation resistance.
- Good adhesion for coatings.

APPLICATIONS

- Removing solder flux residues from electronic assemblies.
- Cleaning printed circuit boards after:
 - repair work
 - assembling small series

Note: The special applicator brush ensures a perfect cleaning which could otherwise only be obtained with very aggressive solvent mixtures

-Colour: colourless -Flash point: < 0° C -Density at 20° C: 0,70 g/cm³ -KB-value: > 50 -Colour: colourless
-Flash point: < 0° C
-Density at 20° C: 0,77 g/cm³
-Evaporation rate: 10 (ether = 1)

-Colour: colourless
-Flash point: < 0° C
-Density at 20° C: 0,80 g/cm³
-Evaporation rate: 10 (ether = 1)

LABEL OFF 50



FOR EASY REMOVAL OF SELF-ADHESIVE LABELS

Removing self-adhesive labels is always a time-consuming task. If the mechanical removal of labels might cause scratches, LABEL OFF 50 is the ideal solution.

LABEL OFF 50 saves time, trouble and money. It acts on the adhesive itself, neutralising its adhesion.

FEATURES

- A powerful dissolving agent for all paper adhesive labels.
- Quick and gentle separation of labels from surfaces as glass, china, metal, paper, carton, wood,...
- Easy removal of natural greases, resins, finger prints.

APPLICATIONS

- Ideal wherever the removal of adhesive labels is a problem:
 - Office equipment
 - Data-processing
 - Addressing machines
 - Labelling machines (removing traces of adhesive from rollers)
 - Gift wrapping

-Colour:

- Household articles
- Plastics (except polystyrene), carton and paper
- Balances with automatic label printers
- Suitable for cleaning surfaces.

DEGREASER 65



ENSURES CLEAN CONTACTS FOR ELECTRIC MOTORS AND EQUIPMENT

DEGREASER 65 is a highly effective cleaning and degreasing agent and can be used whenever greasy and oil-based substances interfere with the smooth running of electric motors and equipment.

FEATURES

- · A fast-acting solvent mixture, which was especially formulated for degreasing electric motors and equipment.
- Controlled evaporation and a high solvent power give it effective cleaning and degreasing properties.
- Oil, grease, wax, dirt and other interfering factors do not stand a chance.
- Cleans quickly and easily, even heavily soiled components.
- Cleans without mechanical assistance.

APPLICATIONS

- Has proven itself in practice for cleaning and degreasing:
 - Electric motors
- Transformers
- Electro-mechanical equipment
- High voltage switches
- Air conditioning units
- Aerial insulators
- Busbars
- Cables
- Charger units
- Contact breakers
- Switchaears
- Power tools

almost colourless

< 0 °C -Flash point: -Density at 20 °C: $0,74 \text{ g/cm}^3$

-Odour: orange

-Colour: colourless -Flash point: 25° C 0,81 g/cm³ -Density at 20° C: -Surface tension: 23 mN/m

KONTAKT IPA/SPOTCLEAN



UNIVERSAL CLEANER FOR **ELECTRONICS, FINE MECHANICS** AND OPTICS

KONTAKT IPA is 99,7 % pure isopropanol in a spray can. The ready to hand aerosol enables a pinpointed, clean application. Ideal as multi-purpose cleaner to improve the performance and reliability of electrical and electronic equipment.

FEATURES

- Extremely pure.
- Evaporates completely, leaving no residue.
- Non-staining on glass and blank metals.
- Safe application due to the sealed can.
- Less soiling.
- Trouble free storage.
- Extension tube for hard-to-reach areas.

APPLICATIONS

- Cleaning of:
 - Magnetic heads on video and audio equipment
 - Disk drives and rubber rollers
 - Optics, mirrors, polished metal surfaces
- Printed circuit boards
- Removal of:
 - Resinified lubricants and greasy dirt on fine mechanics
 - Water resitant and felt-tip inks

Note: Isopropanol is compatible with commonly used plastics, but it is recommended to test prior to use.

Do not spray directly onto magnetic heads, use a swab drenched in KONTAKT IPA.

Also available as cleaning pen under the name "SPOTCLEAN".

-Colour: colourless 12° C -Flash point: -Density at 20° C: 0,79 g/cm³ -Evaporation rate: 11 (ether = 1)

-Purity (without propellant)

- Isopropanol: min. 99,7 % - Water: approx. 0,2 %

SURFACE 95



THE EFFICIENT CLEANER FOR MODERN OFFICE AND TELECOMMUNICATION EQUIPMENT

The cleaning of terminals, PC- and screen-housings and copiers can give electrical/mechanical breakdowns when using small quantities of waterbased cleaners.

SURFACE 95 is water-free and prevents short circuits and corrosion.

Furthermore, SURFACE 95 removes heavy dirt and gives a long lasting shine.

FEATURES

- A highly active cleaning fluid.
- Contains polishing agents, which give long lasting shine.
- Makes treated surfaces look clean and new.
- Water-free.
- Has antistatic properties.
- Compatible with most plastics and paints (test prior to use).
- Removes grease, dirt and stains from all plastic and metal surfaces.

APPLICATIONS

- Ideal for cleaning:
 - Terminals
 - Keyboards
- Copiers
- Furniture
- Cabinets
- Telephone equipment

SCREEN 99 / SCREEN TFT



GET A GOOD VIEW

Screen 99 and Screen TFT are technical glass cleaners, which have been specially developed to meet the requirements of computer monitor and television users. A dirt-free monitor is a basic prerequisite in this field for pleasant, easy work in an ergonomically organised workplace. Because of the inevitable build-up of static electricity, every monitor screen attracts dirt and, from time to time, requires thorough, gentle, streak-free cleaning with Screen 99 or Screen TFT.

FEATURES

- Improves legibility on screens by removing: Dust, grease, nicotine deposits, finger marks, streaks and smudges.
- Safe and easy to use due to the foam formulation.
- The screen stays clean for long periods thanks to the anti-static properties.
- Material compatibility
 - excellent: glass, metals, enamel
 - good: PVC, ABS, polyamide, acrylic glass, polycarbonate

APPLICATIONS

Screen 99

- Suitable for all glass surfaces.
- Achieves good results when cleaning other hard surfaces such as metal and plastics.
- Also, gives impressive results when cleaning the glass panels on photocopy machines and in the photographic industry.

Screen TFT

- Contains no solvents, used to clean TFT and LCD screens on:
 PC monitors, notebooks & laptops, mobile
- phones, camcorders, navigation systems.Also applicable on: Touch screens, cd's, scanners, copiers.
- Note: Do not spray directly on the screen.

ANTISTATIK 100



GIVE ELECTROSTATIC CHARGE NO CHANCE

The accumulation of static electricity caused by friction is a phenomenon which is as familiar as it is annoying. Examples are textiles made of synthetic fibers, plastics and paper. That dust is attracted and items stick together are relatively harmless effects.

Sometimes, electrostatic charge can lead to physical shock on contact or set fire to flammable vapour mixtures.

ANTISTATIK 100 is an extremely effective, surface-active product avoiding this and similar effects.

FEATURES

- Prevents accumulation of static electricity on textiles, plastics, etc...
- Forms an ultra-thin invisible film.
- Does not affect most coatings, rubbers and plastics.

APPLICATIONS

- Reliably gets rid of static charge from:
 - Tables
 - Cladding
 - Plastic surfaces
 - Fitted carpets
 - Lights
 - Records
 - Glasses
 - Acrylic walls, etc...
- Treats the rear of the covers of measuring instruments thus preventing false readings.

-Colour: colourless -Flash point: < 0° C -Density at 20° C: 0,74 g/cm³ -Colour: white foam -Foam stability: several minutes -Density at 20° C:

 Screen 99:
 0,95 g/cm³

 Screen TFT:
 1 g/cm³

-Colour: colourless
-Flash point (aerosol): < 0°C
-Flash point (bulk): 13°C
-Density at 20 °C: 0,80 g/cm³
-Surface resistance: max.10° ohm
(DIN 53482) (e.g. PE treated with ANTISTATIK100)

AIR DUSTERS



AIR DUSTERS

HOW TO FIGHT INTERFERING DUST

A range of products made out of a high pressure, non-flammable, liquid gas blend that acts like compressed air. Available in a variety of sizes all offering a jet of dry gas to remove dust and airborne contamination from very delicate or inaccessible areas of electrical and electronic equipment.

FEATURES

- Blows away lint, oxyde particles and dry contaminants.
- Helps to eliminate failures caused by fluids (water, oil mist,...) trapped in dust or dirt.
- Essential for all cleaning operations where liquid solvents are inappropriate.
- Moisture- and oil-free source, replacing laborious and expensive compressed air cleaning.
- Quick and safe.
- Harmless to plastics, coatings and delicate components.
- Non oxidising.
- Leaves no residue or condensation.
- Always at hand as part of any service kit.

APPLICATIONS

- To be used where it is difficult to remove dust using conventional methods, in industry and at home:
 - Magnetic tape heads
 - Precision instruments
 - Printed circuit boards
- Laboratory equipment
- Miniature assemblies
- Watch mechanisms
- Optics and lenses
- Communication equipment
- Data processing equipment
- Cash dispensers
- Fiberglass cable connections
- Medical instruments.

PRODUCT RANGE DUST OFF 67

General purpose dust remover. The high and consistent pressure guarantees an intensive blowing action. The extension tube for hard-to-reach areas enables easy cleaning.

• Flow rate: 17 g/10s

DUST OFF 360

General purpose invertible air duster. Due to the advanced technology, the aerosol can be used upside-down. Provided with an extension tube for hard-to-reach areas.

• Flow rate: 17 g/10s

JET CLEAN 360

Invertible precision dust remover.

The spray nozzle with screw fitting enables a precise flow control when removing dust and other dry contaminants from precision mechanics, electronic assemblies and fine optics. Also suitable for upside-down use.

• Flow rate: 19 g/10s

DUST OFF HF

The tornado in an aerosol.

The high flow rate valve ensures a powerfull blowing action. Especially designed for heavy duty applications.

• Flow rate: 67 g/10s

Note: For best results use the "quick shot" method. When the aerosol is cooling down and the pressure is decreasing, wait a few moments to restore the internal equilibrium in the aerosol can.



-Colour: colourless -Density at 20° C (liquid): 1,01 g/cm³

-Vapour pressure

(@ 20° C): 420 kPa



.UBRICATION & PROTECTION

KONTAKT 61



LONG LIFE FOR NEW OR CLEANED CONTACTS

KONTAKT 61 is a special cleaning, lubricating and anti-corrosive agent designed for contacts and electromechanical moving parts, which have been cleaned using KONTAKT 60. KONTAKT 61 provides a high degree of protection against corrosion and its microscopically thin protective film guarantees a high degree of contact.

Furthermore, KONTAKT 61 prevents abrasion and seizing of contact strips and rails.

FEATURES

- Neutral active product.
- Does not cause or promote leakage currents.
- Has a distinct anti-corrosive effect.
- Is a first-class lubricant.
- Mechanical abrasion between contact surfaces is greatly reduced and the life of connecting surfaces correspondingly increased if oxides are first dissolved using KONTAKT 60 and then rinsed with KONTAKT WL. Finally, the cleaned contact is protected by KONTAKT 61.

APPLICATIONS

- Guarantees long-lasting oxidation-free contacts wherever they are needed:
 - Manufacturing
 - Repairs and servicing
 - Precision engineering
 - Clock-making

-Density at 20° C:

-Prolonged temperature

- Instrument technology
- Office machinery and many more

KONTAKT GOLD 2000



FUNCTIONAL PROTECTION FOR ALL METAL-PLATED CONTACTS

KONTAKT GOLD 2000 is a synthetic-based, medium viscosity lubricant, leaving a thin film. It gives long-lasting lubrication to connectors and other electromechanical contacts.

It reduces wear on the contact surfaces and reduces damage.

FEATURES

- Has a very low surface tension, which ensures that the active film is evenly distributed over the metal, penetrating into inaccessible spots and guaranteeing effective protection.
- Can be used to significantly improve the reliability of installations and equipment in harsh industrial environments.
- Should be used regularly, particularly where parts are subjected to frequent physical handling, in order to avoid interruptions and data loss.
- Reduces operating costs considerably.

APPLICATIONS

- Particularly suited to connectors with following contact surfaces:
 - Gold, Silver, Tin, Rhodium, Palladium, Other metal-plated
- Can be used in:

-Colour:

- Communications engineering
- Car electronics
- Computer technology
- Office equipment
- Industrial electronics
- Military technology

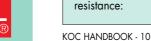
-Density at 20° C: $0,77 \text{ g/cm}^3$ -Viscosity active product @27° C: -Colour: blue

0,76 g/cm³

80° C

1000 mm²/s @38° C: $363 \text{ mm}^2/\text{s}$ @99° C: $13 \text{ mm}^2/\text{s}$ @204° C: $2 \text{ mm}^2/\text{s}$

colourless



KONTAKT 40



THE SOLUTION TO MANY PROBLEMS IN WORKSHOP AND FACTORY

KONTAKT 40's special chemical composition makes it a reliable penetrating oil, lubricant, water displacer and corrosion protector. It forms a durable barrier against water and oxygen with its virtually invisible film of oil. The excellent spreading power guarantees an even and complete coverage of all parts.

LUB OIL 88



THE HIGH-GRADE SPRAYING OIL IN AN AEROSOL

LUB OIL 88 makes maintenance and lubrication of even the most inaccessible points a simple job, without requiring the disassembling of apparatus, machinery or locks.

KONTAFLON 85



A GREASE-FREE PTFE-BASED LUBRICANT AND RELEASE AGENT

The most important elements in KONTAFLON 85 are polytetrafluorethylene (PTFE) particles, which give grease-free lubricating and releasing qualities.

Wherever high-grade lubricants are required for work in an oil-free environment, KONTAFLON 85, the practically invisible wax-like lubricant, sets new standards.

FEATURES

- Multi-purpose lubricant preventing electrical and electronic malfunction caused by water penetration, humidity, condensation or corrosion.
- Cleans, lubricates, penetrates and loosens corrosion.
- Prevents corrosion by displacing moisture.
- Restores low contact resistance and stops leakage currents produced by humidity.
- Convenient 360° spray valve, can be used in all positions.

APPLICATIONS

-Colour:

-Flashpoint:

-Density at 20° C:

-Heat resistance:

-Falex true load failure: 8900 N

(ASTM D 3233, Proc. A)

- Helps to protect, lubricate and restore, whether at work or at home:
 - Electrical parts (plugs, switches, coils, leads,...)
 - Mechanical parts (tools, locks, hinges, nuts and bolts, fixtures,...)
 - Automotive (ingnition system, distributor, battery, cables, starter, motors, aerials,...)

yellowish, amber

(150° C short term)

0,84 g/cm³

> 70°C

120° C

- Leisure (do-it-yourself, garden,...)
- The ideal solution wherever moisture and corrosion are a threat to moving parts.

FEATURES

- Precision lubricating oil, totally acid-free.
- Does not resinify, which results in longer lubrication intervals.
- The detergent oil dissolves dirt, resulting in better corrosion protection and lubrication of the metal surface.
- Provides the best corrosion protection through oxidation inhibitors.
- Does not contain silicone.
- Creates an effective water-repellent film with good lasting qualities.
- Gives water and moisture no chance to cause corrosion.
- Resists to extreme temperature conditions: can be applied at temperatures ranging from -30° C to +100° C.

APPLICATIONS

- An all-round spray oil that can be used to lubricate instruments and equipment in precision mechanics.
- Can be used equally effectively on ferrous and non-ferrous metals.
- Service engineers use LUB OIL 88 for work on:
- Machinery
- Tape recorder motors
- Hydraulic systems
- Sewing machines
- Model railways

-Density at 20°C: 0,83 g/cm³
-Flashpoint: 70° C
-Viscosity at 20°C: 5 mPa.s
-Pourpoint: -30°C

FEATURES

- Surfaces sprayed with KONTAFLON 85 have the typical characteristics of PTFE:
 - Water-repellent
 - Tack-free
 - Does not soil or grease
 - Non-conductive
 - Resistant to temperatures ranging from -50° C to 260° C
 - Non-flammable after evaporation of solvent
 - Resistant to chemicals.
- Good adhesion properties due to a small amount of binder.
- Optimum alternative to mineral oil wherever clean, colourless, grease-free lubricants and release agents are required.

APPLICATIONS

- Lubrication of rotating, sliding and turning surfaces subject to low friction and heavy load in:
 - Industry: electronic, electromechanical, packaging, furniture, textile, paper, automotive, plastic and rubber
 - Leisure activities
 - Consumer market
- A release agent for the moulding of rubber and plastic parts.

-Colour: whitish -Temperature resistance: up to 260° C

-Particle size: 5 µm (average) -Coefficient of friction: 0,1

KOC HANDBOOK - 11

(hardwood/hardwood)

FLUID 101



AGAINST PENETRATING MOISTURE

Costly interruptions to the manufacturing process due to short circuits in the electrical circuitry caused by condensation and humidity, are now a thing of the past, thanks to **FLUID 101.**

FEATURES

- A dewatering fluid with extremely fast moisture displacement properties.
- High water-repellent and anti-corrosive properties.
- Low surface tension.
- Can get into hard-to-reach areas and act there without requiring disassembling of equipment, due to its marked capillary activity.
- Promptly eliminates leakage currents and short circuits and prevents their recurrence.
- Fluid 101 does not emulsify in water.

APPLICATIONS

- Can be used wherever moisture causes damage, to restore electrical equipment.
- Covers all the parts that need protection with a thin protective film which does not interfere with subsequent processing.
- Can be used to protect electrical and electronic systems wherever moisture presents
- To remove water out of antenna amplifiers

KONTAKT 701



VASELINE SPRAY: AN OLD REMEDY FOR MODERN TECHNOLOGY

KONTAKT 701 is a lubricating and anticorrosion agent, which has proved itself in communications engineering and antenna construction, to name just two.

Cable clamps and screw connections are sealed and protected against corrosion using KONTAKT 701. Ordinary vaseline, because of its consistency, is difficult to apply. The KONTAKT 701 spray makes it simple to use.

FEATURES

- Produced from high-purity, white vaseline.
- · Consistency makes it a universal lubricant for a wide variety of purposes.
- The 140 mm long extension tube that fits into the spray nozzle allows the vaseline to be sprayed accurately and precisely.

APPLICATIONS

- Can be used as a lubricant and protective spray in:
 - Antenna construction
 - Communications engineering
 - Guideways
 - Electrical contacts
- Corrosion protector for cable clamps and screw connections.

SILICONE 72



FOR INSULATION, LUBRICATION AND PROTECTION

SILICONE 72, a high-quality, silicone-based, viscous, insulating oil, prevents spark discharge, stops leakage current and eliminates corona effect. It is water-repellent and therefore very effective as a moisture protector with excellent dielectric properties.

FEATURES

- High insulating capacity with a dielectric strength of 12 KV/mm.
- Can be used at temperatures from -50° C to +200° C.
- The insulating film remains stable regardless of temperature.
- · Ideally suited as a non-hardening insulating

APPLICATIONS

- A lubricant in the pulling of wiring and
- A release agent in the moulding of plastic and rubber parts.
- A lubricant and release agent in:
 - Plastics and chipboard production
 - Wherever corona effects must be prevented
 - Wherever protection against moisture must be guaranteed

-Colour: amber -Filmthickness: 0,3 µm $150 \, m^2/l$ -Coverage:

-Drying time:

(solvents)

20-30 min. (20° C)

-Colour:

glassy white $0,72 \, \text{g/cm}^3$ -Density at 20° C: -Viscosity at 100° C:

-Cone penetration

(DIN 51580): -Solidification point

(DIN 51556): 54° C

 $9 \text{ mm}^2/\text{s}$

175

-Dielectric strength: (acc. to VDE 0303)

-Density at 20° C:

-Colour:

4.10¹⁵ ohm.cm -Volume resistivity: -Viscosity: 1000 mm²/s (25° C)

colourless 0.78 g/cm^3 10^{14} ohm.cm

KOC HANDBOOK - 12

EMI 35



FOR SHIELDING FROM **ELECTROMAGNETIC INTERFERENCE**

EMI 35 is developed to provide shielding from electromagnetic waves of plastic housings in electronics. EMI 35 is a highly conductive copper-based coating, which can be used to shield against electromagnetic interference (EMI), as well as to protect against electrostatic discharge.

GRAPHIT 33



ELECTRICALLY CONDUCTIVE COATING

GRAPHIT 33 is a dispersion of fine, pure, colloidal graphite in a specially formulated solvent mixture with an organic binder, which gives an electrically conductive coating to non-conductive media.

FEATURES

- Easy to work with.
- The coating shows good stability due to the optimum combination of binder, corrosion inhibitor and copper.
- High degree of protection, even in difficult environmental conditions.
- Good adhesion on and compatibility with plastics.
- Dries very quick: handling time less than 30 min. (air-drying).

APPLICATIONS

- Offers an effective solution whenever plastic housings require shielding:
 - Office equipment: computers, printers, video screens,...
 - Measuring instruments
 - Video housings
 - Many areas of consumer electronics
- Telecommunication equipment: walkytalky, radio control, telephones, etc...

FEATURES

- Provides a dry, adhering, electrically conductive coating to:
 - Plastics
 - Wood
 - Glass
 - Ceramics
- Dry lubricant.
- The coating can be made even more electroconductive, stable and colour-fast, by simply polishing the spray film with cotton wool, a soft cloth or a buffing disc, or baking at 90° C.

APPLICATIONS

- Used primarily to avoid electrostatic charge build-up in packaging materials and housings of electronic equipment.
- Repair of damaged shielding in cathode ray tubes.
- Coating of cables.
- Prevents electrostatic charge build-up on tube conveyor systems.
- Conductive pre-coat for galvano-plating of plastics and other non-conductive materials.



CONDUCTIVE COATING

-Colour: copper-brownish < 0,25 ohm/square -Surface resistivity:

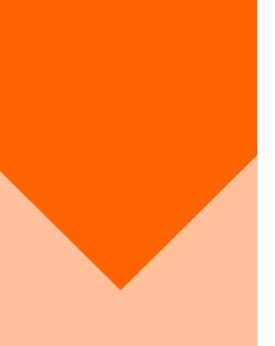
(50 µm filmthickness)

-Attenuation: 60 - 65 dB (50 µm filmthickness) (ASTM ES7-83) -Conductor system: copper particles -Curing time:

tack-free: 10 min. handling: 30 min.

-Colour: grey-black 1-10 µm -Particle size:

< 20 min. at 20° C -Drying time: -Surface resistivity: 1000-2000 Ohm



PROTECTIVE COATING

PLASTIK 70



THE UNIVERSAL CONFORMAL **COATING FOR** PRINTED CIRCUIT BOARDS

PLASTIK 70 is a fast drying, transparent, acrylic coating, with good dielectric properties. It shields printed circuit boards or other parts from corrosive (atmospheric) influences. This film protects printed circuit boards from leakage currents and short circuits.

FEATURES

- Provides a protective and insulating film against atmospheric influences such as moisture, oxidation, dust or corrosive vapours.
- Good adhesion on metal, plastic, wood, glass,..
- The film is resistant to diluted acids, alkalines and atmospheric attack.
- Can be soldered through.
- Prevents sparking and corona effects.
- Remains transparent and flexible even after a long period.
- \bullet Temperature range : -40° C to +60° C.

APPLICATIONS

- Insulation and protection of:
 - General electronics
 - Printed circuit boards
 - Cables and wires
 - High-voltage transformers
 - Coils of electric motors
- Protective coating in electro-engineering applications.
- To avoid short circuits in car electrics.
- To seal plastic caps of plug and socket



THE CONFORMAL COATING FOR ELECTRO-ENGINEERING AND ELECTRONICS

URETHAN 71 is a top quality, single component, urethane-modified, insulating and protective coating for use in electro-engineering and electronics. It provides a longlasting seal to protect against moisture and environmental influences. Because it is a thermoset material, it is more difficult to solder through the URETHAN 71 film.

FEATURES

- High dielectric strength.
- High surface and volume resistivity.
- Low dielectric constant and loss factor.
- Resistant to moisture.
- Anti-fungal.
- Unique combination of hardness, elasticity and strong adhesion.
- Offers an advantage over two component coatings in:
 - Providing a high quality protective lacquer
 - An easy, cost-effective application (no additional chemicals)

APPLICATIONS

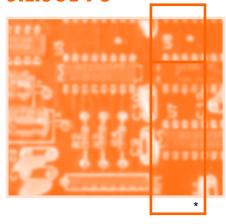
- Offers long-lasting corrosion protection on printed circuit boards and on coils in electric
- An anti-moisture sealant in corrosive atmospheres on all types of metal.
- Can be used on:
 - Armature coils, casings, cables, connectors, control systems, electronic components, solenoids, machine tools, transformer clamps and casings, wiring



 $> 10^{13}$ ohm -Surface resistivity: > 10¹³ ohm.cm Volume resistivity: -Dielectric strenght*: > 80 kV/mm15-20 -Curing time (min): - Drying Time: ca 20 min. (20°C)

-Colour: yellowish 15-20 min. -Drying time (track free): 120° C -Temperature resistance: > 40 kV/mm-Dielectric strength: $> 10^{12} \text{ ohm}$ -Surface resistivity: $> 10^{12} \text{ ohm.cm}$ -Volume resistivity:

SILISOL 73



INSULATES AND PROTECTS WHEN THINGS GET HOT

Its outstanding qualities make this transparent, silicone-based conformal coating an important insulating and impregnating protector in all locations where dirt, moisture or extreme weather conditions present a hazard to sensitive printed circuit boards or porous materials. Suitable both for rigid or flexible circuit boards; SILISOL 73 guarantees reliable long-lasting protection even at extremely high temperatures.

FEATURES

- Flexible from 45° C to + 200° C.
- Good dielectric properties.
- Resistant to weather, dirt and ultraviolet light.
- Flame resistant.
- Easy to repair.
- Very low moisture absorption.
- Room temperature cure.

APPLICATIONS

- A protective coating for rigid and flexible circuit boards in:
 - Automotive electronics
 - Aeronautical and space technology
 - Military and naval areas
 - Control electronics
- Impregnation of porous substrates, such as ceramics, to improve moisture resistance.

*Note: only available in bulk.

-Colour: transparent > 50 kV/mm-Dielectric strength: > 10¹⁴ ohm.cm -Volume resistivity: -Temperature resistance: 200° C

-MIL-I-46058c

FLUX SK 10



THE SOLDER-ACTIVE INTERMEDIATE PROTECTOR FOR PRINTED CIRCUIT BOARDS

FLUX SK 10 is an excellent soldering aid (flux), which can be used to prevent oxidation of circuit boards. FLUX SK 10 is suitable for manufacturing, repair and service purposes. Printed circuit boards often need to be soldered at a later stage, and, in most cases, the conductors have oxidised.

Soldering can then only be carried out under difficult conditions, as the soldering point overheats and the conductor becomes detached from the substrate material.

FLUX SK 10 offers the optimum solution to these problems, since it is an outstanding fluxing agent.

FEATURES

- An intermediate protective lacquer capable of being soldered.
- Meets the requirements of DIN 8511 F-SW31.
- Promotes rapid soldering.
- Prevents cold spots and localised overheating while soldering.
- Protects circuit boards from corrosion during intermediate storage.
- Can be applied easily and quickly.

APPLICATIONS

- Can be applied during the manufacturing of printed circuit boards, directly after etching. This prevents oxidation of the conductors, soiling caused by perspiration from the hands or traces of grease, which may occur during assembly.

 • Ensures a good flow of solder.
- Used when soldering heavily oxidised
- Solderability of casted lead parts of lead batteries is reliably protected.

-Colour: amber -Density at 20° C: 0,82 g/cm³ 20-30 min. -Tack-free time: 80-85° C -Softening point:

(resin, DIN 53180)

ZINK 62



RUST PROTECTOR

ZINK 62 is a zinc-based galvanic rust protector containing zinc with a purity of minimum 98 %. It prevents rust and provides long-lasting protection against aggressive environmental factors to all types of ferrous metals. Where galvanised surfaces have become damaged or altered through drilling, cutting, welding or screwing, reliable corrosion protection, is required.

FEATURES

- Forms a resistant, flexible, electrically conductive, protective film.
- Good adhesion on the base metal.
- Protects the base metal even when scratched or damaged.
- Excellent weldability.
- Will not flake off.
- Lead- and chromate-free.

APPLICATIONS

- Can be used in:
 - Gas, water and electricity supply companies
 - Power stations
- Transformers
- Railway equipment
- Street-lighting
- Car bodywork manufacture
- Can prevent salt water corrosion in shipping and coastal area installations.

-Colour:

1,45 g/cm³ -Density at 20° C: -Tack-free time: 40 min.

-Hardening time: 24 hours (20° C) 15 m²/l

-Coverage: (30 µm filmthickness)

-Salt spray resistance: 350 h

SPECIAL PRODUCTS

POSITIV 20



TO MANUFACTURE PRINTED **CIRCUIT BOARDS USING** THE PHOTO POSITIVE PROCESS

POSITIV 20, a photo-sensitive lacquer, designed both for technical specialists and non-professionals, interested in producing single printed circuit boards or smaller production runs. POSITIV 20 not only facilitates the manufacturing of all circuit board formats, but also the making of heliogravures and the accurate transfer of photographic elements onto a wide variety of materials.

Using POSITIV 20, the production of dials, front panels, signboards etc. no longer presents a problem.

FEATURES

- Circuit board transparencies can be copied directly onto plates sprayed with POSITIV 20.
- A high degree of exposure tolerance provides the conditions necessary for a high resolution result.
- Suitable for glass, acrylics, aluminium, copper, brass, steel,...

APPLICATIONS

- In the production of individual printed circuit boards or smaller production runs.
- In the making of copper and brass engravings as copies.
- In the manufacture of medals or outline engravings.

Note: A leaflet outlining the detailed application procedure is enclosed with each can and available upon request.

TRANSPARENT 21



TRANSPARENT SPRAY

Wiring diagrams on a scale of 1:1 are suitable for direct transfer. Using TRANSPARENT 21 spray, single-sided newsprints or drawings can be made translucent to ultraviolet light. This enables the direct transfer of wiring or related diagrams from trade journals onto surfaces treated with the photocopy spray POSITIV 20, saving complicated reproduction work.

FEATURES

- Makes papers, tables and wiring diagrams:
 - Transparent
 - Translucent to UV light
- Evaporates slowly, without leaving any residue.

APPLICATIONS

- For rapid transfer of wiring diagrams and drawings onto the substrate material.
- Replaces the expensive time-consuming reproduction process.



-Colour: blue $0.87g/cm^3$ -Density at 20° C: 15 min. (70° C) -Drying time: 340-420 nm -Photosensitivity:

-Colour: transparent -Drying time: ca 20 min. (20° C) 0,79 g/cm³ -Density at 20°C:

FREEZE 75



REDUCES REPAIR TIMES TO MINUTES

Thermal interruptions are a very common cause of failure in electronic equipment and are often very hard to pinpoint.

Time-consuming measurements often take up hours of technicians' time.

FREEZE 75 provides an instant solution by cooling down circuitry to -50° C. Intermittent short circuits or interruptions in condensers or resistors are quickly discovered with FREEZE 75.

FEATURES

- Causes an immediate reduction in temperature to -50 °C.
- Makes it possible to cool individual components through selective treatment.
- Non-conducting.
- Non-flammable.
- Does not affect materials.
- No longer necessary to test and measure individual components.
- Immediately detects the problem through cold shock.

APPLICATIONS

- Components that are suspected of failure.
- Integrated circuits, condensers, resistors react immediately, changing their output (e.g. on a TV-screen).
- Can be used to instantly test:
 - Electronic components
 - Thermostats in refrigerators and freezers
 - TN starting systems
 - Control systems
 - Thermal valves
 - Electronic carburettor components
 - Ignition systems
- Indispensable in mechanical engineering, dentistry and histology.
- To remove chewing gum from fabrics.

-Density at 20° C: 1,15g/cm³
-Evaporation: complete
-Cooling: down to -50° C
-Vapour pressure: 460 kPa (@ 20 °C)

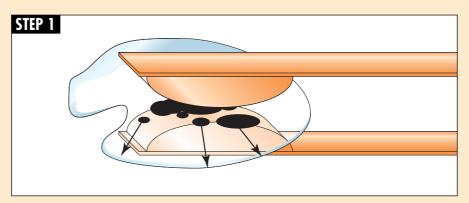
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PROFESSIONAL CONTACT CLEANING AND MAINTENANCE

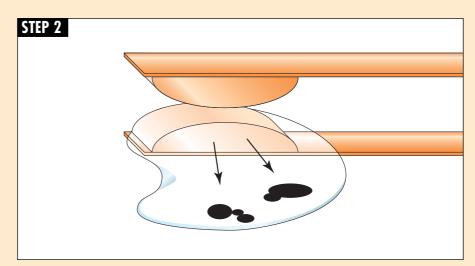
The optimal restoration of electrical contacts in 3 steps.

Fast
 Reliable
 Economical



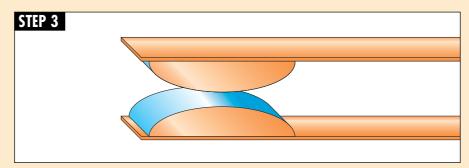
KONTAKT 60

Dissolves corrosion layers, restoring the metal contact. To avoid corrosion risks after certain time, step 2 and 3 are recommended.



KONTAKT WL

Rinses dissolved corrosion products, grease and dirt.



KONTAKT 61

Builds a thin protective film, preventing corrosion and wear.

