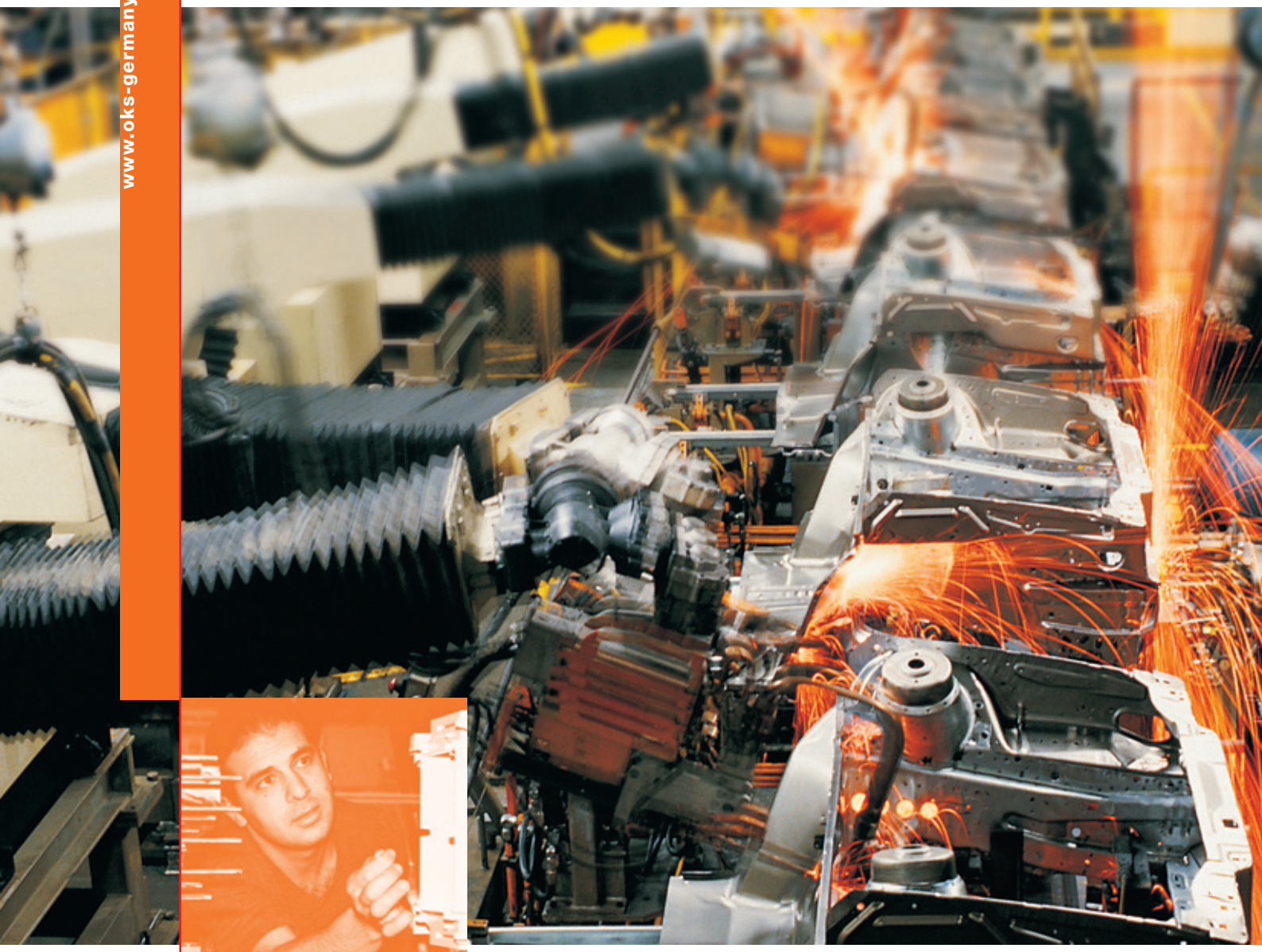
OKS®

Chemotechnical Products for *industrial maintenance and assembly*

www.oks-germany.com



HIGHEST PERFORMANCE

FOR MAXIMUM PROCESS RELIABILITY

Speciality Lubricants
Maintenance Products

QUALITY MADE IN GERMANY
AVAILABLE WORLDWIDE

OKS – your professional partner for chemotechnical special products for over 25 years

The OKS brand stands for high-performance products for reducing friction, wear and corrosion. Our products are used in all the areas of production and maintenance technology in which the performance limits of classic lubricants are exceeded. Over 150 products are available to you.

The products developed by OKS engineers and technicians are produced under strict quality requirements in Munich, Germany, our company's headquarters. From here just-in-time sales are carried out worldwide, supported by the modern logistics centre in nearby Maisach.

The continued success of OKS for more than 25 years is decisively characterised by the high quality and reliability of our products, as well as the fast implementation of customer requirements through innovative solutions.

Since 2003 OKS Spezialschmierstoffe GmbH has been part of the international Freudenberg Group, Weinheim, Germany. We utilize the comprehensive know-how and the innovative power of the Freudenberg Chemical Specialities (FCS) division for the further development of new products and markets to ensure the continued dynamic growth of our company in the future.

OKS – Partner to Trade
Our speciality lubricants and chemotechnical maintenance products are sold exclusively via the technical and mineral oil trades. The consistent strategy of "sales only via trade", the smooth processing of orders and our comprehensive technical service make us one of the preferred partners for demanding customers worldwide. Use our specialist's know-how. Put us to the test.

We are certified by the German TÜV in accordance with the standard DIN ISO 9001:2000.

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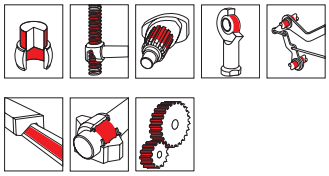
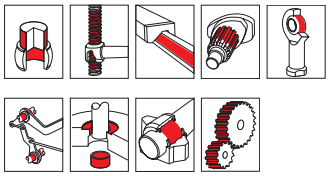
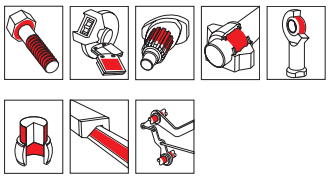
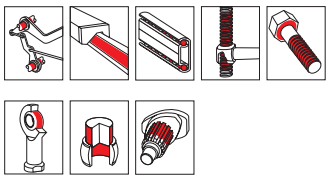
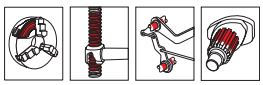
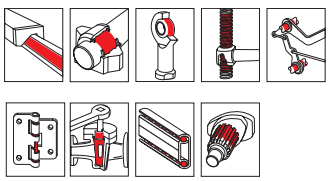
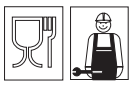
The chemotechnical maintenance products from OKS were developed especially for the complex requirements in maintenance and assembly applications.

Whether under critical operating conditions, such as high pressure loads and extreme temperatures or when subject to aggressive environmental influences such as dust and corrosion – the performance of our maintenance products will always convince you.

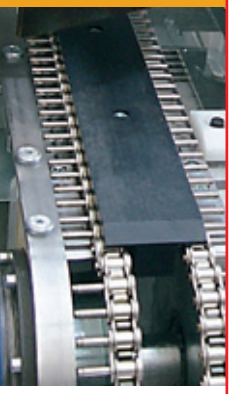
PASTES FOR EASY ASSEMBLY AND DISMANTLING

Pastes

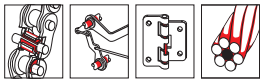
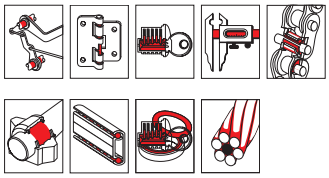
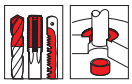
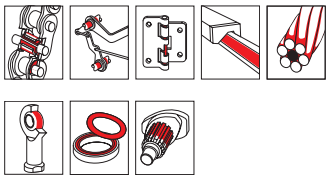
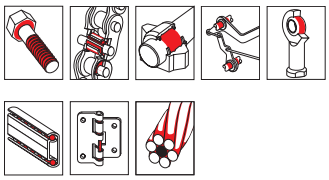
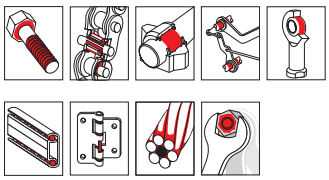
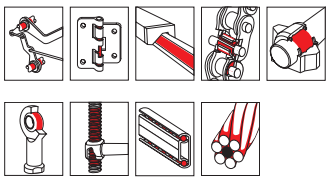
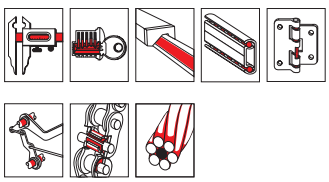
Product	Designation	Fields of Application	Purpose
OKS 200	MoS_2 Assembly Paste		Assembly lubrication for press-on processes. Run-in lubrication of highly loaded sliding surfaces. Prevents wearing, stick-slip, seizing, run-in damage or pitting. Lubricant for difficult moulding processes. For universal use.
Mo$_x$-Active			
OKS 220 **OKS 221***	MoS_2 Rapid Paste		Assembly lubrication for press-on processes. Run-in lubrication of highly loaded sliding surfaces. Lubricant for difficult metal forming processes. Immediately effective due to high percentage of MoS_2, no rubbing in of paste necessary. High-quality assembly paste.
Mo$_x$-Active			
OKS 240 **OKS 241***	Antiseize Paste (Copper Paste)		For assembling screw threaded connections subjected to high temperatures and corrosive influences. Prevents burning together or rusting on. Enables an optimum ratio of tightening torque to achievable pre-tension. Classic anti-seize paste.
OKS 245	Copper Paste with High Corrosion Protection		For screws, bolts and sliding surfaces subjected to high temperatures, water or sea water. Prevents burning together and rusting on. Prevents seizing during assembly. Highly adhesive. Excellent corrosion protection. Suitable for brake systems.
OKS 250 **OKS 2501***	White Allround Paste, metal-free		For screws, bolts and sliding surfaces subjected to high pressures and temperatures. Optimum ratio of tightening torque to achievable pre-tension. Metal-free. Excellent corrosion protection. Universal high-temperature paste. For stainless-steel connections.
Mo$_x$-Active			
OKS 260	White Assembly Paste		For screws, bolts and sliding surfaces subjected to high pressures at low speeds. Enables an optimum ratio of tightening torque to achievable pre-tension. Prevents frictional corrosion. Metal-free. Waterproof.
OKS 265	Chuck Jaw Paste		For sliding surfaces subjected to high pressures, vibrations and impact loads. Optimum coefficient of sliding friction for high elasticity. Resistant to water and cooling lubricants. Prevents frictional corrosion. Especially for chucks on machine tools.
OKS 270	White Grease Paste		Long-term lubrication of sliding surfaces subjected to high pressures. Non-soiling alternative to black lubricants. Multipurpose grease paste for sliding points, e.g. on textile, packaging or office machines and household appliances.

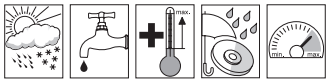
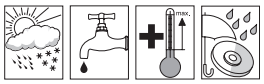
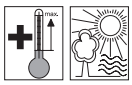
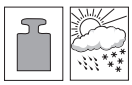
Properties / Approvals	Main Components	Technical Data	Packaging
	black MoS_2, graphite and other solid lubricants, Mo_X-Active, synthetic oil, lithium soap	Operating temperature: -35°C → +450°C Press-fit: μ = 0.09, no rattling Four-ball test rig (welding load): 2,400 N Thread friction: μ = 0.07	50 g tube 250 g tin 1 kg tin 5 kg hobbock 25 kg hobbock
	black MoS_2 and other solid lubricants, Mo_X-Active, synthetic oil	Operating temperature: -35°C → +450°C Press-fit: μ = 0.05, no rattling Four-ball test rig (welding load): 4,200 N Thread friction: μ = 0.07	50 g tube 250 g tin 1 kg tin 5 kg hobbock 25 kg hobbock 400 ml aerosol*
	copper-brownish copper powder and other solid lubricants synthetic oil inorganic thickener	Operating temperature: -30°C → to +200°C/+1,100°C Press-fit: μ = 0.12, no rattling Four-ball test rig (welding load): 2,800 N Thread friction: μ = 0.09	10 g tube 100 g tube 250 g brush tin 1 kg tin 5 kg hobbock 25 kg hobbock 400 ml aerosol*
	copper-coloured copper powder, corrosion protection additive, semi-synthetic oil, lithium soap	Operating temperature: -30°C → +150°C/+1,100°C Press-fit: μ = 0.12, no rattling Four-ball test rig (welding load): 2,600 N Thread friction: μ = 0.15	250 g brush tin 1 kg tin 5 kg hobbock 25 kg hobbock
 OKS 250: NSF H2 Reg. No. 131379	white white solid lubricants, Mo_X-Active, synthetic oil, polycarbamide	Operating temperature: -40°C → +200°C/+1,400°C Press-fit: μ = 0.08, no rattling Four-ball test rig (welding load): 4,000 N Thread friction: μ = 0.10	10 g tube 100 g tube 250 g brush tin 1 kg tin 5 kg hobbock 25 kg hobbock 400 ml aerosol*
	light-coloured white solid lubricants, mineral oil, lithium soap	Operating temperature: -25°C → +150°C Press-fit: μ = 0.09, no rattling Four-ball test rig (welding load): 2,600 N Thread friction: μ = 0.08	100 g tube 250 g tin 1 kg tin 5 kg hobbock 25 kg hobbock
	light-coloured white solid lubricants, adhesive additives, synthetic oil, lithium soap	Operating temperature: -45°C → +150°C Press-fit: not applicable Four-ball test rig (welding load): 4,200 N Thread friction: μ = 0.10	400 g cartridge 1 kg tin 5 kg hobbock 25 kg hobbock
	light-coloured PTFE and white solid lubricants, mineral oil, lithium soap	Operating temperature: -25°C → +125°C Press-fit: μ = 0.14, no rattling Four-ball test rig (welding load): 5,000 N Thread friction: μ = 0.09	100 g tube 1 kg tin 5 kg hobbock 25 kg hobbock

OILS WITH HIGH-PERFORMANCE ADDITIVES FOR RELIABLE LUBRICATION



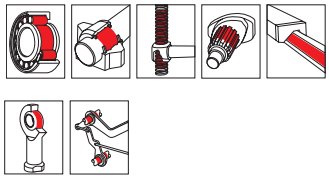
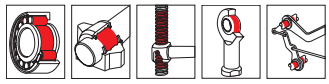
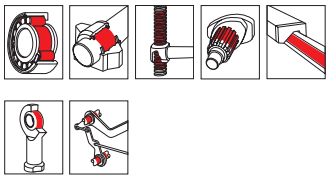
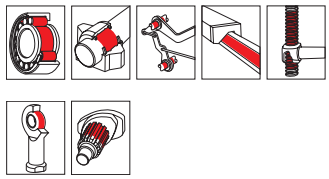
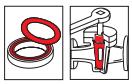
Oils

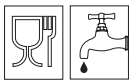
Product	Designation	Fields of Application	Purpose
OKS 340 **OKS 341***	Chain Protector, strongly adhesive Mo$_x$-Active **ISO VG 460** **DIN 51 502: CLP X 460**		Synthetic lubricant for machine elements subjected to high pressure or corrosive influences. Extremely high creep capacity. Highly adhesive and resistant to throwing off. Excellent wear protection. O-ring-neutral. Solvent free. For fast-running chains.
OKS 370 **OKS 371***	Multipurpose Oil for Food Processing Technology **ISO VG 15** **DIN 51 502: CL 15**		High-performance oil for precision machine elements. Tasteless and odourless. Extremely high creep capacity. Displaces water. Dissolves dirt and rust. Washed out of textiles. For use in textile and packaging industry.
OKS 390 **OKS 391***	Cutting Oil for all metals Mo$_x$-Active **ISO VG 22**		For machining work on all metals. Permits high cutting speeds. Reduces application of force. Results in optimum cutting surfaces and extended tool life. For universal use in workshops and during assembly work.
OKS 450 **OKS 451***	Chain Lubricant, transparent Mo$_x$-Active **ISO VG 320** **DIN 51 502: CLP X 320**		For fast-running chains and other machine elements subjected to high pressures or corrosive influences. Extremely high creep capacity. Highly adhesive. Resistant to throwing off. Excellent wear protection. Waterproof. For lubricating flexible drives.
OKS 600 **OKS 601***	Multi Oil **ISO VG 7** **DIN 51 502: C7**		Low-viscosity multipurpose oil. Extremely high creep capacity. Dismantling rusted-in parts. Good lubricating properties. Displaces moisture. For cleaning and care of metal surfaces. Protects electrical contacts. For industry, workshop and hobby applications.
OKS 8600 **OKS 8601***	BIOlogic Multi Oil BIOlogic **ISO VG 7** **DIN 51 502: CL E 7**		Low-viscosity multipurpose oil. Biodegradable. Extremely high creep capacity. Dismantling rusted-in parts. Good lubricating properties. Displaces moisture. For cleaning and care of metal surfaces. Protects electrical contacts. For industry, workshop and hobby applications.
OKS 670 **OKS 671***	High-Performance Lube Oil with white Solid Lubricants Mo$_x$-Active **ISO VG 46** **DIN 51 502: CL F 46**		Long-term lubrication of machine elements subjected to high pressures, dust or moisture. Good corrosion protection. Ideal for chains in dusty environments, e.g. on transport systems, packaging machines and automatic filling machines. Bicycle chain oil.
OKS 700 **OKS 701***	Synthetic Oil **ISO VG 7** **DIN 51 502: CL X 7**		For lubrication and care of high-precision machine elements. Resin and acid-free. Good creep behaviour. Excellent wetting behaviour. Compatible with plastics. For use on measuring instruments, locks, in precision mechanics or optics.

Properties / Approvals	Main Components	Technical Data	Packaging
	brownish-transparent Mo_x-Active, adhesion improver, polyisobutylene	Operating temperature: -30°C → +200°C Density (20°C): 0.90 g/ml Viscosity (40°C): 470 mm²/s Four-ball test rig (welding load): 2,600 N	5 l canister 25 l canister 200 l drum 500 ml aerosol*
 OKS 370: NSF H1 Reg. No. 124382 OKS 371: NSF H1 Reg. No. 124384 In accordance with DAB 10	colourless white oil	Operating temperature: -10°C → +180°C Density (20°C): 0.86 g/ml Viscosity (40°C): 14 mm²/s	100 ml pump spray 5 l canister 25 l canister 200 l drum 500 ml aerosol*
	light-coloured Mo_x-Active, mineral oil	Operating temperature: not applicable Density (20°C): 0.86 g/ml Viscosity (40°C): 23 mm²/s Four-ball test rig (welding load): 3,400 N	250 ml bottle 5 l canister 25 l canister 200 l drum 400 ml aerosol*
	brownish-transparent Mo_x-Active, adhesion improver, polyisobutylene	Operating temperature: -30°C → +200°C NLGI grade: not applicable DN factor (dm x n): not applicable Base oil viscosity (40°C): 300 mm²/s Four-ball test rig (welding load): 2,400 N	500 ml brush tin 1 l tin 5 l canister 25 l canister 200 l drum 300 ml aerosol* 500 ml aerosol*
	light-coloured mineral oil	Operating temperature: -30°C → +60°C Condensed water test: 194 h with 9 µm layer thickness Layer thickness: 9 µm	5 l canister 25 l canister 200 l drum 400 ml aerosol*
	light-coloured ester	Operating temperature: -5°C → +160°C Density (20°C): 0.88 g/ml Viscosity (40°C): 7 mm²/s Four-ball test rig (welding load): not applicable	5 l canister 25 l canister 200 l drum 400 ml aerosol*
	light-coloured white solid lubricants, Mo_x-Active, mineral oil	Operating temperature: -30°C → +80°C Density (20°C): 0.90 g/ml Viscosity (40°C): 42 mm²/s Four-ball test rig (welding load): 3,000 N	5 l canister 25 l canister 200 l drum 400 ml aerosol*
	light-coloured polyisobutylene	Operating temperature: -50°C → +100°C Density (20°C): 0.83 g/ml Viscosity (40°C): 7 mm²/s Four-ball test rig (welding load): not applicable	1 l tin 5 l canister 25 l canister 200 l drum 100 ml aerosol* 400 ml aerosol*

GREASES FOR LONG-TERM LUBRICATION UNDER CRITICAL OPERATION CONDITIONS

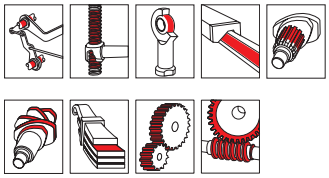
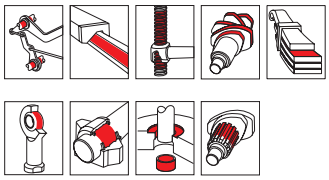
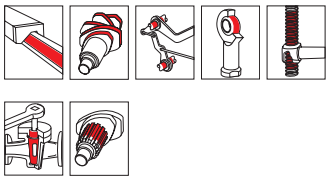
Greases

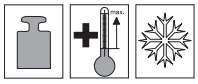
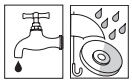
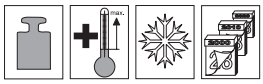
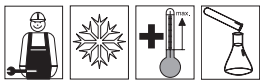
Product	Designation	Fields of Application	Purpose
OKS 400	MoS_2 Multipurpose High-Performance Grease **DIN 51 502: KPFK-30**		For heavily loaded or impact-loaded roller and friction bearings, spindles and joints. Forms an MoS_2 sliding film for emergency running properties. Reduces wear. Resistant to ageing and oxidation. High-pressure grease for universal use.
OKS 402	Ball-Bearing High-Performance Grease **DIN 51 502: K2K-30**		For machine elements such as roller and friction bearings, spindles and slideways under normal loads. Reduces wear. Good resistance to pressure and water. Resistant to ageing and oxidation. Multipurpose grease.
OKS 470 **OKS 471***	White Universal High-Performance Grease (also for Food Processing Technology) **DIN 51 502: KF2K-30**		For heavily loaded roller and friction bearings, spindles and slideways when dark-coloured lubricants cannot be used. Good pressure properties. Reduces wear. Resistant to ageing and oxidation. Waterproof. Hygienically harmless.
OKS 476	Multipurpose Grease for Food Processing Technology **DIN 51 502: KF2K-20**		For roller and friction bearings and other machine elements. Resistant to cold and hot water, as well as to disinfectants and cleaning agents. Resistant to oxidation. Reduces wear. Multipurpose grease for universal use in food processing technology.
OKS 1110 **OKS 1111***	Multi-Silicone Grease **DIN 51 502: MSI3S-40**		For fittings, seals and plastic parts. Resistant to media. Excellent compatibility to plastics. No drying out or bleeding. Tasteless and odourless. Highly adhesive. Silicone grease for a broad range of applications, including for food processing technology.

Properties / Approvals	Main Components	Technical Data	Packaging
	black MoS_2, mineral oil, lithium soap	Operating temperature: -30°C → +120°C NLGI grade: 2 DN factor (dm x n): 350,000 mm/min Base oil viscosity (40°C): 100 mm²/s Four-ball test rig (welding load): 3,600 N	100 g tube 400 g cartridge 1 kg tin 5 kg hobbock 25 kg hobbock 180 kg drum Lubrication set
	light-coloured mineral oil, lithium soap	Operating temperature: -30°C → +120°C NLGI grade: 2 DN factor (dm x n): 400,000 mm/min Base oil viscosity (40°C): 100 mm²/s Four-ball test rig (welding load): 2,000 N	400 g cartridge 1 kg tin 5 kg hobbock 25 kg hobbock 180 kg drum
	light-coloured white solid lubricants, mineral oil, lithium soap	Operating temperature: -30°C → +120°C NLGI grade: 2 DN factor (dm x n): 300,000 mm/min Base oil viscosity (40°C): 108 mm²/s Four-ball test rig (welding load): 3,800 N	100 g tube 400 g cartridge 1 kg tin 5 kg hobbock 25 kg hobbock 180 kg drum 500 ml aerosol*
 NSF H1 Reg. No. 137619	light-coloured white solid lubricants, white oil, aluminium-complex soap	Operating temperature: -20°C → +120°C NLGI grade: 2 DN factor (dm x n): 400,000 mm/min Base oil viscosity (40°C): 67 mm²/s Four-ball test rig (welding load): 2,200 N	400 g cartridge 1 kg tin 5 kg hobbock 25 kg hobbock 180 kg drum
 OKS 1110: NSF H1 Reg. No. 124381 KTW / DVGW	transparent silicone oil, inorganic thickener	Operating temperature: -40°C → +200°C NLGI grade: 3 DN factor (dm x n): not applicable Base oil viscosity (40°C): 9,500 mm²/s Four-ball test rig (welding load): not applicable	10 g tube 100 g tube 400 g cartridge 500 g tin 5 kg and 25 kg hobbock 180 kg drum 500 ml aerosol*

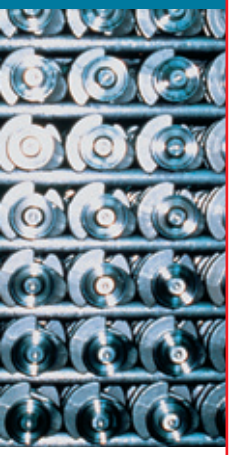
DRY LUBRICANTS – THE ALTERNATIVE FOR SPECIAL APPLICATION CASES

Dry Lubricants

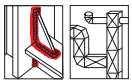
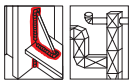
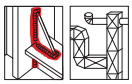
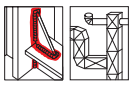
Product	Designation	Fields of Application	Purpose
OKS 111	MoS_2 Powder, microsize		Run-in lubrication in combination with oils or greases. Prevents friction and wear, even at high pressures. Good adhesion, even on extremely precision-machined surfaces. For difficult moulding processes. For pressing in bearings.
OKS 491	Open Gear Spray, dry		Dry lubrication of slowly-turning, open pinion gears, steel cables etc. subjected to high pressures, dust or corrosive influences, such as outdoor weathering. Reduces friction and wear. Prevents adhesion of dust and dirt.
OKS 511	MoS_2 Bonded Coating, fast-drying		Dry lubrication for temporary operation or long down-times, industry environments and at low sliding speeds. Run-in lubrication in combination with oils or greases. Creates emergency-running properties. Dries at room temperature.
OKS 571	PTFE Bonded Coating		Dry lubrication of sliding surfaces of different materials at low pressures, low speeds and in dusty environments. Colourless, no-soiling sliding and parting film. Prevents tribocorrosion. Dries at room temperature.

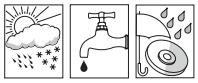
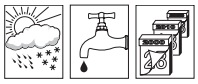
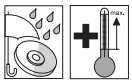
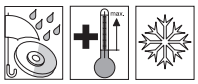
Properties / Approvals	Main Components	Technical Data	Packaging
	black MoS_2	Operating temperature: -185°C → +450°C (up to +1,100°C in vacuum, up to +1,300°C in inert gas) Press-fit test: not applicable Thread friction coefficient: not applicable Particle size: 3.0 – 4.0 µm, max. 15 µm	400 ml aerosol
	black graphite, natural resins, solvent	Operating temperature: -30°C → +100°C NLGI grade: not applicable DN factor (dm x n): not applicable Base oil viscosity (40°C): not applicable Four-ball test rig (welding load): not applicable	500 ml aerosol
	black MoS_2, other solid lubricants, organic binder, solvent	Operating temperature: -180°C → +450°C Press-fit test: µ = 0.07, no stick-slip Thread friction coefficient: µ = 0.07	400 ml aerosol
	light-coloured PTFE, organic binder, solvent	Operating temperature: -180°C → +260°C Press-fit test: µ = 0.07, no stick-slip Thread friction coefficient: µ = 0.10	400 ml aerosol

CORROSION PROTECTION FOR RELIABLE PRESERVATION DURING STORAGE AND SHIPPING



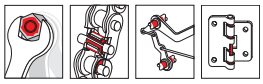
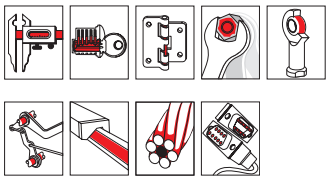
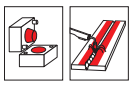
Corrosion Protection

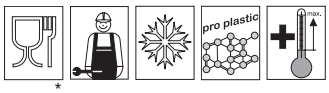
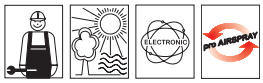
Product	Designation	Fields of Application	Purpose
OKS 2100 **OKS 2101***	Protective Film for Metals		Temporary wax-based corrosion protection film for storage and shipping of machine parts with bare metal surfaces. Suitable for all climatic zones. Non-tacky, transparent film. Easy to remove. Good compatibility with lubricants.
OKS 2300 **OKS 2301***	Mould Protector		Temporary corrosion protection film for storage and shipping of machine parts with bare metal surfaces. Green colouration for checking. Suitable for all climatic zones. Displaces water. Easy to remove. Good compatibility with lubricants.
OKS 2511	Zinc Coating		Cathodic corrosion protection based on highly pure zinc powder for ferrous metals. For toughing up galvanised surfaces. Also suitable as adhesive primer for coating systems. Fast-drying. For use in steel construction work in air conditioning technology.
OKS 2521	Gloss Zinc		Decorative corrosion protection based on zinc and aluminium powder for ferrous metals. For touching up hot-galvanised surfaces. Can be welded through. Abrasion resistant. Can be painted over. Fast-drying.
OKS 2531	Alu-Metallic		Decorative corrosion protection based on aluminium powder for ferrous metals. For touching up hot-galvanised surfaces. Can be welded through. Fast-drying. Abrasion-resistant. Protects vehicle exhaust systems. Optimal when combined with OKS 2511.
OKS 2541	Stainless Steel		Resistant protective and decorative coating with stainless-steel pigments for all materials. Highly adhesive. Impact, abrasion and scratch-resistant. Fast-drying. Optimal when combined with OKS 2511.

Properties / Approvals	Main Components	Technical Data	Packaging
	light-coloured synthetic wax, corrosion protection additive, solvent	Operating temperature: -40°C → +70°C Salt spray test: 1,000 h with 50 µm layer thickness Layer thickness: approx. 10 µm for one-time application	5 l canister 25 l canister 200 l drum 500 ml aerosol*
	green synthetic wax, corrosion protection additive, solvent	Operating temperature: -40°C → +70°C Salt spray test: >1,000 h with 10 µm layer thickness Layer thickness: approx. 10 µm for one-time application	5 l canister 25 l canister 200 l drum 500 ml aerosol*
	dull grey purest zinc powder, synthetic resin mixture, solvent	Operating temperature: up to +490°C Salt spray test: 480 h with 50 µm layer thickness Layer thickness: approx. 20 µm for one-time spraying	500 ml aerosol
	aluminium-coloured purest zinc and aluminium powder, synthetic resin mixture, solvent	Operating temperature: up to +240°C Salt spray test: 240 h with 80 – 100 µm layer thickness Layer thickness: approx. 20 µm for one-time spraying	500 ml aerosol
	aluminium-coloured purest aluminium powder, synthetic resin mixture, solvent	Operating temperature: -50°C → +180°C (briefly up to +800°C) Salt spray test: 480 h with 50 µm layer thickness Layer thickness: approx. 10 µm for one-time spraying	500 ml aerosol
	bright metallic stainless-steel powder, acrylic resin, solvent	Operating temperature: up to +100°C Salt spray test: 72 h with 50 µm layer thickness Layer thickness: approx. 20 µm for one-time spraying	500 ml aerosol

MAINTENANCE PRODUCTS
FOR ONGOING SERVICE

Maintenance Products

Product	Designation	Fields of Application	Purpose
OKS 90	Thread Locking Paste		Run-proof, pasty thread locking compound. Vibration-resistant. Can also be used on finished surfaces, stainless steel and other passive materials, such as plastic. Medium-firm, enabling destruction-free dismantling. For universal use.
OKS 611	Rust Remover with MoS_2		For destruction-free dismantling of seized or rusted-in machine elements. Excellent creep properties. Displaces moisture. Good lubricating properties due to MoS_2. Universal rust dissolver for industry, workshop and hobby applications.
OKS 621	(F)Rost Breaker		Destruction-free dismantling of seized or rusted-in machine elements. Breaks open corrosion layers by cooling down to -40°C. Penetration of creep oil into microsize cracks. Fast-acting rust dissolver for industry, workshop and hobby applications.
OKS 640 **OKS 641***	Maintenance Oil		For dismantling, lubrication and care of machine elements and metal surfaces. Good cleaning action. Temporarily protects against corrosion. Displaces moisture. For industry, workshop and hobby applications.
OKS 1360 **OKS 1361***	Silicone Release Agent		Parting agent and lubricant for use in processing plastics. Chemically neutral. Solvent-free. Colourless. Displaces water. Fitting aid for rubber profiles. Lubrication of cutting edges. (OKS 1361: Care and impregnation of plastic surfaces and textiles.)
OKS 1501	Release Agent, silicone-free		Silicone-free parting agent for arc and inert-gas arc welding. No burning on of weld spatters. Increases torch service life. Highly-effective mould release agent for processing plastics. Universal solvent-based welding spray.
OKS 1600 **OKS 1601***	Spatter Release, water-based concentrate		Environmentally friendly, water-based parting agent for arc and inert-gas arc welding. No burning on of weld spatters. Increases torch service life. Can be removed residue-free. Universal, silicone-free, welding parting-agent concentrate.
OKS 2701	Refrigerating Spray		Rapid undercooling of smaller surfaces and parts down to -45°C. Simulation of cold-start conditions on motor vehicle engines. For locating thermally-related interruptions. Protects adjacent areas during soldering and welding. Easier mounting with interference fits.

Properties / Approvals	Main Components	Application tips	Packaging
	red epoxy acrylate, micro-encapsulated accelerating and curing components	Easy to handle, as the micro-encapsulated components do not become active until they are screwed together. Beginning of curing at room temperature approx. 5 min. after assembly. Suitable for all threads M5 or bigger. Operating temperature: -60°C → +150°C.	10 g tube 50 g tube
	grey MoS_2, mineral oil	For optimum effectiveness, clean soiling from corresponding area mechanically. Spray on generously and allow to soak. Repeat as necessary. Operating temperature: -30°C → +50°C.	400 ml aerosol
	light-coloured mineral oil, solvent	Before applying, remove coarse soiling. Shake can before use. Spray on from distance of 10 – 15 cm and allow to soak in for approx. 1 – 2 min. Repeat as necessary. Operating temperature: -10°C → +40°C.	400 ml aerosol
	yellowish-transparent mineral oil, solvent	Before applying, remove coarse soiling. Spray on product generously and allow to soak depending on the degree of binding and the required penetration depth. Repeat as necessary. Operating temperature: -50°C → +80°C.	5 l canister 25 l canister 200 l drum 400 ml aerosol*
 * OKS 1360: BAM Diary No. II-77/00, 21/02/00 OKS 1361: NSF H1 Reg. No. 129481	light-coloured silicone oil	For optimum effect, clean surfaces mechanically and with OKS 2610 / OKS 2611. Apply or spray on an even, thin layer of the product and avoid excessive lubrication. Operating temperature: -50°C → +200°C.	1 l tin 5 l canister 25 l canister 500 ml aerosol*
	light-coloured natural greasy oil, solvent	For optimum effect, clean surfaces mechanically and with OKS 2611. Apply an even, thin coating to application area from a distance of 20 – 30 cm. Easy to remove without leaving behind residues for subsequent work steps such as painting or metallising.	400 ml aerosol
	light-coloured natural greasy oil, water	For optimum effect, clean surfaces mechanically and with OKS 2610 / OKS 2611. Depending on application, dilute concentrate with water in 1 : 5 ratio and apply an even thin coating or spray on accordingly from a distance of 20 – 30 cm.	5 l canister 25 l canister 500 ml aerosol*
	colourless active and propellant gases	Spraying of cooled parts until desired temperature is reached. Do not use with voltage connected and keep away from ignition sources. OKS 2701 evaporates quickly and residue-free.	400 ml aerosol

MAINTENANCE PRODUCTS
FOR ONGOING MAINTENANCE

Maintenance Products

Product	Designation	Fields of Application	Purpose
OKS 2721	Compressed-Air Spray		Removal of loose dirt particles at inaccessible points. Dry, oil-free pressurised gas mixture. Evaporates quickly and residue-free. For maintenance work in electronics and precision mechanics, on optical devices and all types of office machines.
OKS 2800 **OKS 2801***	Leak Detector		Location of leaks on pressurised lines, fittings and containers. Formation of bubbles indicates loss of gas. For universal use. Non-toxic. For use on pneumatic, oxygen and gas systems as well as refrigerating machines.
OKS 2810 **OKS 2811***	Leak Detector, frost-proof		Location of leaks on pressurised lines, fittings and containers down to **-15°C**. Formation of bubbles indicates loss of gas. For universal use. Non-toxic. For use on pneumatic, oxygen and gas systems as well as refrigerating machines.
OKS 2901	Belt Tuning		Increases belt tension force. Prevents slip. Protects belt against drying out and wearing. Increases service life. Prevents squeaking. For universal use on all V-belts, round and flat belts.

Properties / Approvals	Main Components	Application tips	Packaging
	colourless active and propellant gases	Spray surface at shorter intervals from a distance of approx. 10 cm. Do not shake can before use and hold vertically when spraying. Do not use with voltage connected and keep away from ignition sources.	400 ml aerosol
 Approval under DIN DVGW Mark of conformity NG 5170AO0659*	colourless active ingredients, corrosion protection, water	Wetting of area to be checked with air spray system, brush or by spraying on. Formation of bubbles indicates leaks. Protect against frost. When using on polyamide lines, wash off product with water afterwards. Operating temperature: up to +80°C.	5 l canister 25 l canister 400 ml aerosol*
 Approval under DIN DVGW Mark of conformity NG 5170BL0103*	colourless active ingredients, corrosion protection, water	Wetting of area to be checked with hand sprayer, brush or by spraying on. Formation of bubbles indicates leaks. When using on polyamide lines, wash off with water afterwards. Operating temperature: -15°C → up to +80°C.	5 l canister 400 ml aerosol*
	colourless adhesive additives, solvent	For optimum adhesion, clean belt mechanically and with OKS 2611. Spray belt evenly. Allow to soak in for 30 min. before operating. Repeat as necessary. Check compatibility with plastic before use. Operating temperature: up to +80°C.	400 ml aerosol

CLEANERS FOR THOROUGH REMOVAL OF SOILING AND LUBRICANT RESIDUES

Cleaners

Product	Designation	Fields of Application	Purpose
OKS 2610 **OKS 2611***	Universal Cleaner		For machine parts and surfaces with oily or greasy soiling. Evaporates quickly and residue-free. High cleaning power. Short-term corrosion protection due to VCI additives. No undercooling. Cleaner for lubrication and gluing points.
OKS 2621	Contact Cleaner		To remove soiling that can cause creepage currents. No running thanks to fast evaporation. Contains no chlorinated hydrocarbons. For example, for cleaning distribution boards, switches, relays, potentiometers, plug-in connections, sliding and screw contacts.
OKS 2650 BIOlogic	BIOlogic Industrial Cleaner Concentrate, water-based		Aqueous cleaner for removing heavy oily, greasy and sooty soiling. Biodegradable. Good separation behaviour. Gentle to delicate surfaces. For universal use in industry, workshop and food processing technology.
OKS 2661	Fast Cleaner		For machine parts and surfaces with oily or greasy soiling. Evaporates quickly and residue-free. High cleaning power. Ideal for preparation of bonded connections and cleaning of lubricating points. Brake cleaner.

Properties / Approvals	Main Components	Application tips	Packaging
	colourless additives, solvent mixture	Generously wet or spray the surfaces to be cleaned from a short distance and rub down with cloths if necessary. Then allow to dry approx. 1 min. at room temperature. Check resistance of plastics and paintwork before using.	5 l canister 25 l canister 200 l drum 500 ml aerosol*
	colourless solvent mixture	Switch off voltage and discharge electrostatic charging before use. Spray until desired cleanliness is achieved. Due to the wide variety of plastics used in electrical engineering, check plastics for corresponding resistance before use.	400 ml aerosol
 NSF A1 Reg. No. 129003 LGA Quality Certificate	reddish surface-active agents, water	Depending on degree of soiling, can be diluted with water in ratio between 1:5 and 1:40. Spray on and rinse with water or wipe off after allowing to soak in briefly. Suitable for high-pressure devices and steam jet cleaners. Check compatibility with surfaces before use.	5 l canister 25 l canister 200 l drum
	colourless solvent mixture	Generously spray the surfaces to be cleaned from a short distance and rub down with cloths if necessary. Then allow to dry approx. 1 min. at room temperature. Check resistance of plastics and paintwork before using.	600 ml aerosol

LUBRICATING DEVICES FOR PRACTICAL USE

Solutions for Continuous Use in Industry

OKS Airspray System

The practical spraying system prevents waste and reduces costs. A small investment in environmental protection that already pays off after approx. 10 fillings. Indestructable design for harsh everyday use in workshops and plants. OKS products marked with the Airspray pictogram are suitable for use with the Airspray System.

Lever Grease Gun

The practical grease gun for reliable, economical application of grease. Thanks to its well thought-out design and rugged construction, it stands up under even the toughest conditions. Available separately or in the Lubricating Set (20 cartridges of OKS 400 or OKS 470 including a lever grease gun).

Sprayboy

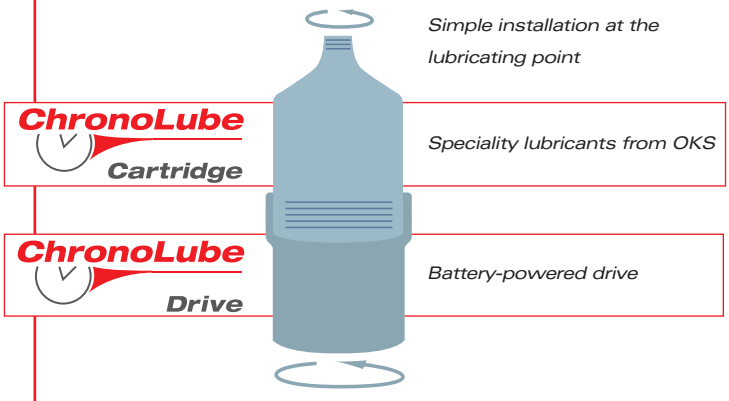
Together with the spray can, the Sprayboy becomes the perfect spraying device. It enables simple, fatigue-free handling and exact, controlled dosing of the spray mist. (Suitable for all OKS standard spray cans with a size of 300 ml or bigger. Do not use together with Airspray can.)

Speciality lubricants including automatic relubrication

ChronoLube is the ideal combination of OKS speciality lubricants with an electromechanical lubricator. This enables the automatic supply of lubricating points with oil and grease. In the dosage you require and at the right time – without under or over-lubrication.

Simply install the ChronoLube Drive together with the suitable ChronoLube cartridge at the lubricating point and set the dispensing time (1/3/6/12 months) in accordance with your requirements.

ChronoLube is available together with the **greases OKS 420**, **OKS 422** and **OKS 479**, as well as the **oils OKS 352** and **OKS 3760** as standard. Additional lubricants in the ChronoLube System are available on request.



Simple installation at the lubricating point

INNOVATIVE SOLUTIONS FOR SPECIAL APPLICATIONS

Speciality lubricants for food processing technology

OKS develops speciality lubricants which meet the demanding hygiene requirements in food processing technology.
They can be used in all areas in which human beings could come into indirect contact with lubricants. Application of these lubricants is not limited to the food processing industry.

Typical users include:

- ☐ Manufacturers of food packaging
- ☐ Machine and system builders for the food processing industry
- ☐ Operators of logistics centres for foodstuffs
- ☐ Producers of household appliances like baking ovens, refrigerators etc.
- ☐ Manufacturers of household products
- ☐ Toy industry
- ☐ Pharma industry

Speciality lubricants for individual requirements

We focus on the development of customer-specific lubricant solutions in close cooperation with our trade partners. Experts from a wide range of different disciplines work in our laboratories with state-of-the-art systems and test equipment to modify existing or develop new products for special application cases. Please tell us about your application requirements.

ChronoLube cartridge easily replaceable by screwing drive unit on and off

TECHNICAL TERMS

DIN 51502

The objective of this standard is the uniform marking of standard lubricants via a system of code letters and simple graphic symbols. The marking classifies the lubricant type, the viscosity, the consistency and the operating temperature. However, speciality lubricants can only be described partially by the German standard DIN 51502.

DN factor

The DN factor or rotating speed factor is an empirical guide value that indicates up to which maximum rotating speeds a lubricant can be used in a roller bearing. The DN factor is mainly based on the mean bearing diameter (D+d)/2, however is highly dependent on the respective bearing type or bearing design.

Consistency

The consistency of lubricating greases is the strength characteristic. According to DIN 2137 it is measured from the penetration depth of a standardised cone. The classification according to NLGI (DIN 51818) ranges from very soft (Class 000) to very firm (Class 6). Standard lubricating grease usually complies with the NLGI Class 2.

Mo_x-Active

The Mo_X-Active (OKS Registered Trademark) contained in lubricants enables a smoothing of the otherwise rough metal surfaces at the lubricating points, and therefore results in a tribologically highly effective surface coating. Run-in times are considerably shortened, and friction and wear are greatly reduced.

NSF classification

Lubricants designed in accordance with the positive list for ingredients of the American Food and Drug Administration (FDA) recognised worldwide are published under an NSF registration number following testing by the National Sanitation Foundation. The classification H1 stands for lubricants which may be used when contact with food cannot be technically excluded. The classification H2 applies to lubricants that may be used when contact with food is technically excluded.

Drop point

The drop point of a lubricating grease refers to the temperature at which the grease thickener can no longer bind the base oil, and the lubricating grease flows through the opening of a nipple in accordance with the test conditions of DIN 2176.

Viscosity

Viscosity refers to the property of liquids to produce a resistance to flowing due to their inner friction. The most important influencing factor for the viscosity is the operating temperature. As the temperature increases, the viscosity decreases and vice versa. The assignment in viscosity classes is carried out according to DIN 51519. The higher the number, the more viscous the liquid.

Four-ball test

The four-ball test rig is a testing device for lubricants used at high surface pressures in the mixed friction range. According to DIN 51350, the four-ball test rig consists of a rotating moving ball which slides on three fixed balls. During the test for the maximum load-bearing capacity of the lubricant, a test force acts on the moving ball, which is increased in steps until the four-ball system is welded together as a result of the friction heat produced. In another four-ball test method the wear value of a lubricant is determined under defined test conditions (test force, speed, time).

Fields of Application

- Roller bearings
- Friction bearings
- Chains
- Pivoting bearings
- Levers
- Slideways
- Linear guide systems
- Spindles
- Threaded connections
- Chucks
- Seals
- Valves
- Press fittings
- Moulding
- Splined shafts
- Camshafts
- Springs
- Brakes
- Open gears
- Closed gears
- Worm gears
- Cutting tools
- Measuring devices
- Precision mechanics
- Hinges
- Wire cables
- Hydraulics
- Thread locking
- Mould release
- Weld release
- Cleaning
- Electrical contacts
- Cooling
- Dust removal
- Leak detection
- Belt drives
- Offshore
- Storage/Shipping
- Steel construction
- Sheet-metal processing
- Rust remover

Properties

- High temperatures
- Low temperatures
- High speeds
- Heavy loading
- Effects of weathering
- Effects of water
- Effect of chemicals
- Corrosion protection
- Compatible with plastics
- Long-acting
- Environmentally friendly
- Workplace-friendly
- For food processing technology
- Sprayable with Airspray System
- Electrical engineering/ Electronics

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Over 150 high-performance products from one supplier

- ☐ **Pastes** for easy assembly and dismantling
- ☐ **Oils** with high-performance additives for reliable lubrication
- ☐ **Greases** for long-term lubrication under critical operation conditions
- ☐ **Dry lubricants** – the alternative for special application cases
- ☐ **Corrosion protection** for reliable preservation during storage and shipping
- ☐ **Maintenance products** for ongoing service
- ☐ **Cleaners** for thorough removal of soiling and lubricant residues

For your company´s individual lubrication requirements please contact OKS

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