

For a world in motion



THE CATALOGUE

40 YEARS OF TRIBOLOGICAL EXPERTISE — MADE IN GERMANY



OKS – your professional partner for chemotechnical special products

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.

Quality - Made in Germany

The continued success of OKS for 40 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.

The products developed by OKS engineers and chemists are produced under strict quality requirements in Maisach near Munich, Germany, our company's headquarters. Worldwide distribution is carried out just-in-time from Maisach, supported by a modern logistics centre.

The long-standing certifications by the TÜV SÜD Management Service GmbH in the fields of quality (ISO 9001: 2015), environment (ISO 14001: 2015) and work protection (ISO 45001: 2018) are proof of the high OKS quality standard.







A company of the Freudenberg Group

Since 2003 OKS Spezialschmierstoffe GmbH has been part of the international Freudenberg Group, with head-quarters in 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 via the technical and mineral oil trades. The strategy of "sales 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.



SUPPLIER OF THE YEAR 2013



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We focus on the development of customer-specific lubricant solutions in close cooperation with our trade partners.

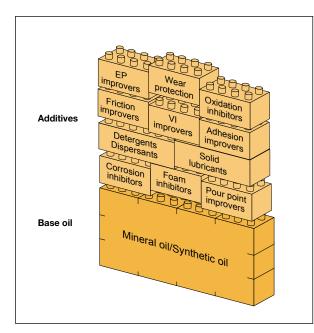
Experts from a wide range of different disciplines work in our laboratories with state-of-the-art systems and test equipment to modify existing or develop new products for special application cases.



Oils

Oils dissipate heat well from the lubricating point. In addition, they have an notedly good creep and wetting behaviour. Therefore oil lubrication is often used at high temperatures or high speeds of rotation.

Typical fields of application are gears, chains, friction bearings, hydraulics and compressors.



Structure of high-performance oils

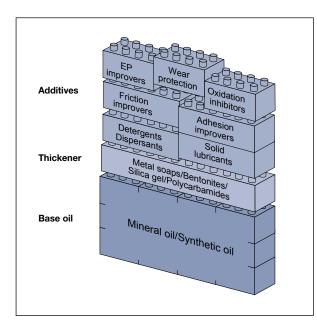
The additives play an important role in the formulation of a high-performance oil in addition to the careful selection of the base oil (type, viscosity) and has considerable influence on the price-performance ratio. Modern lubricating oils are conceived so that when the oil film is breached, the active ingredients form a protective film, so that the surfaces are protected against wear.

Properties of base oils

The base oil plays a decisive role in the selection of a lubricating oil. Mineral oils, synthetic hydrocarbons (polyalphaolefines = PAO), ester, polyglycols and silicone oils differ notably in their physical properties and chemical behaviour.

Greases

Greases consist of a base oil that is bound by a thickener (soap). This ensures that the lubricant remains at the lubricating point. There it ensures permanently effective protection against friction and wear and seals the lubricating point against external influences such as moisture and foreign matter. Greases are often used at rolling and friction bearings, spindles, fittings, seals, guides, but also at chains and gears.



Structure of greases

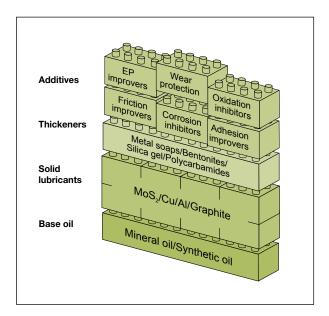
The main difference in the structure of greases compared to oil is the thickener which determines the typical performance features of a grease. Modern lubricating greases are formulated so that their active ingredients form an emergency running lubricating film in case of critical stresses and ensure operational reliability.

Compatibility of greases

In addition to the compatibility of the base oils, the miscibility of the thickeners has to be taken into account when changing greases. An incompatibility has a negative influence on the performance of the lubricating grease.

Pastes

The structure of pastes basically corresponds to that of greases. However, the share of solid lubricants is notably higher. This ensures reliable lubricating, separating and corrosion protection effects also when used under extreme temperature and pressure conditions and aggressive media. Pastes are used at screwed connections as well as when pressing in pins and bolts and furthermore at gearwheels.

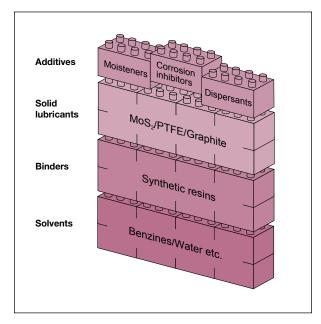


Structure of pastes

The structure of high-performance pastes is similar to that of greases. The main difference is the high portion of solid component that is typical of both assembly pastes (lubrication effect only) as well as for screw pastes (lubrication and separation effect).

Dry lubricants

Dry lubricants can be classified into powdery solid lubricants, ceraceous sliding films and solid-content bonded coatings. Bonded coatings are used in many technical fields, e.g. for nuts, screws, bolts, washers, springs, sealing rings, gearwheels, slideways and threaded spindles.



Structure of bonded coatings

Bonded coatings are solid lubricants (usually MoS₂, graphite or PTFE) that are embedded in a binder.

A solvent that evaporates during the curing or drying time is added for the distribution of the bonded coating.

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 51 502.

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.

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.

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.

NLGI-Class

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.

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 lubri-

cants that may be used when contact with food is technically excluded.

Press-fit-test

The Press-fit test provides information on the behaviour and the adhesion of solid lubricants under very high pressure and low sliding speeds. The coefficient of friction μ is measured and noted whether stick-slipping occurs.

Salt spray test

The salt spray test simulates a salty climate to DIN EN ISO 9227 NSS (ex DIN 50 021 SS), whereby coated plates are subjected to a defined salt spray. A check is carried out after how many hours traces of rust arise.

Thread friction

The thread friction is determined on a screw test bench. According to DIN EN ISO 16 047 the coefficient of friction μ of a screwed connection is obtained when screws and nuts are tightened. Thread dimension, materials and type of the surface have to be specified.

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.



OKS SELECTION GUIDE

Fields of Application



Roller bearings



Valves



Measuring devices

Precision

Hinges

mechanics



Dust removal





Leak detection



Belt drives



Offshore



Storage/Shipping





Steel construction



Sheet-metal processing



Rust remover



MOSH MOAH

Foam cleaning

MOSH/MOAH-free



Electrical contacts







Friction bearings

Pivoting bearings

Chains

Levers

Slideways

Linear guide

systems

Spindles

Threaded

Chucks

connections



Moulding

Camshafts

Springs

Closed gears

Worm gears

Cutting tools

Press fittings





Hydraulics

Wire cables



Compressors



Separating mould release



Separating weld release



Cleaning





Cooling

Properties



High temperatures



temperatures



High speeds



Heavy loading



Effects of weathering



0

Effects of water



Effect of chemicals



Corrosion protection



ro plastic Compatible with plastics



Long-acting



Environmentally friendly



Foam forming



NSF certified



Sprayable with Airspray-System



Electrical engineering/ Electronics

PASTES FOR EASY ASSEMBLY

AND DISMANTLING



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Product	Designation	Fields of Application	Purpose
OKS 200	MoS₂ Assembly Paste		Assembly lubrication for press-on processes Run-in lubrication of highly loaded sliding surfaces Lubricant for difficult moulding processes Prevents wearing, stick-slip, seizing, run-in damagor pitting For universal use
OKS 217	High-Temperature Paste, high purity		Assembly lubrication of screw threaded connection made of high-strength steel, at high temperatures aggressive environment Optimum ratio of screw tightening torque to achievable pre-tension No burning together and rusting on No reaction with metals For use in the chemical industry
OKS 220 OKS 221* Mo _x -Active	MoS₂ Rapid Paste		 Assembly lubrication for press-on processes Run-in lubrication of highly loaded sliding surface Lubricant for difficult moulding processes Effective immediately through high MoS₂ share Rubbing in the paste not required High-quality assembly paste
OKS 230	MoS ₂ High-Temperature Paste		For high-temperature applications up to 450 °C (dry lubrication from approx. 200 °C) Prevents wearing, stick-slip, seizing, run-in damage pitting Carrier oil evaporates residue-free from 200 °C upwards Bearings of pouring ladles, converters, kiln cars, osimilar Relubrication in operation with OKS 310
OKS 235 OKS 2351*	Aluminiumpaste, Anti-Seize-Paste		For assembling screw and bolt threaded connections that are subjected to high temperatures and corrosive influences Optimum ratio of screw tightening torque to achievable pre-tension Prevents burning together or rusting on Prevents seizing Use as lubricating and separating paste
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 Optimum ratio of screw 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 thigh temperatures, water or sea water Prevents burning together and rusting on Prevents seizing during assembly Highly adhesive Excellent corrosion protection Suitable for brake systems



			Pastes
Properties / Approvals	Main Components	Technical Data	Packaging
	black white solid lubricants MoS ₂ graphite Mo _x -Active synthetic oil thickener: lithium soap	Operating temperature: -35 °C \rightarrow +450° C Press-fit: μ = 0.09, no chatter Four-ball test rig (welding load): 2,400 N	40 ml tube 250 g can 1 kg can 5 kg hobbock 25 kg hobbock
	dark-grey semi-synthetic oil	Operating temperature: -40 °C \rightarrow +1,400 °C Press-fit: μ = 0.11, chatter from 4,000 N onwards Four-ball test rig (welding load): 4,400 N Thread friction (M10/8,8): μ total = 0.10	250 g brush tin 1 kg can 5 kg hobbock
	black other solid lubricants MoS ₂ Mo _x -Active synthetic oil thickener: without	Operating temperature: -35 °C \rightarrow +450 °C Press-fit: μ = 0.05, no chatter Four-ball test rig (welding load): 4,200 N	400 ml cartridge 250 g can 1 kg can 5 kg hobbock 400 ml spray*
	black other solid lubricants MoS₂ polyglycol thickener: lithium hydroxystearate	Operating temp.: -35 °C \rightarrow +180 °C/+450 °C (lubrication/separation) Press-fit: μ = 0.11 Four-ball test rig (welding load): 3,200 N Thread friction (M10/8,8): μ total = 0.10	250 g can 1 kg can 5 kg hobbock 25 kg hobbock
	metallic silver other solid lubricants aluminium powder synthetic oil thickener: inorganic	Operating temperature: -40 °C \rightarrow +1,100 °C Thread friction (M10/8,8): μ total = 0.12	250 g brush tin 1 kg can 5 kg hobbock 400 ml spray*
+	copper-brown MoS ₂ copper other solid lubricants synthetic oil thickener: inorganic	Operating temp.: -30 °C \rightarrow +200 °C/+1,100 °C Press-fit: μ = 0.12, no chatter Four-ball test rig (welding load): 2,800 N Thread friction (M10/8,8): μ total = 0.09	8 ml tube 75 ml tube 250 g brush tin 1 kg can 5 kg hobbock 25 kg hobbock 400 ml spray*
	copper-coloured copper powder EP additives AW additives mineral oil thickener: organic, inorganic	Operating temp.: -30 °C → +100 °C/+1,100 °C Thread friction (M10/8,8): µ total = 0.14 Four-ball test rig (welding load): 3,400 N	150 ml dispenser 250 ml brush tin 1 kg can 5 kg hobbock 25 kg hobbock

PASTES FOR EASY ASSEMBLY

AND DISMANTLING



Pastes			
Product	Designation	Fields of Application	Purpose
OKS 250 OKS 2501*	White Allround Paste, metal-free		For screws, bolts and sliding surfaces subjected to high pressures and temperatures Metal-free Optimum ratio of tightening torque to achievable pre-tension Excellent corrosion protection Also suitable for stainless-steel connections Use as universal high-temperature paste
OKS 252	White High-Temperature Paste for Food Processing Technology		Lubrication of screws, bolts and sliding surfaces that are subjected to high pressures, high temperatures at low speeds or oscillating movements Prevents burning together and rusting on Metal-free Highly adhesive Universal high-temperature assembly paste
OKS 255	Ceramic Paste		Lubrication of highly loaded sliding surfaces of all kinds, especially at low sliding speeds or oscillating movements Surface separation of temperature-stressed threaded connections Also suitable for stainless-steel connections
OKS 260	White Assembly Paste		For screws, bolts and sliding surfaces subjected to high pressures at low speeds 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 Use as multipurpose grease paste, e.g. on textile, packaging or office machines and household appliances
OKS 277	High-Pressure Lubrication Paste with PTFE		Lubrication of heavily loaded press and guide plates Lubrication and sealing of fittings made of metal, plastic and ceramic Long regreasing intervals Good plastic and elastomer compatibility Highly adhesive Use as lubrication paste, e.g. for telescope booms of mobile cranes



			Pastes
Properties / Approvals	Main Components	Technical Data	Packaging
NSF +	white white solid lubricants Mo _x -Active synthetic oil mixture thickener: polycarbamide	Operating temp.: -40 °C \rightarrow +200 °C/+1,400 °C (lubrication/separation) Press-fit: μ = 0.10, no chatter Four-ball test rig (welding load): 3,600 N Thread friction (M10/8,8): μ total = 0.12	8 ml tube 80 ml tube 250 g brush tin 1 kg can 5 kg hobbock 25 kg hobbock 400 ml spray*
Reg. No. 131379	light grey white solid lubricants polyglycol thickener: silicate	Operating temperature: -30 °C \rightarrow +160 °C/+1,200 °C (lubrication/separation) Press-fit: μ = 0.12 Thread friction (M10/8,8): μ total = 0.15	200 g dispenser 250 g brush tin 1 kg can
OKS 252: NSF H1 Reg. No. 135748			
	white white solid lubricants EP additives AW additives mineral oil thickener: organic, inorganic	Operating temp.: -30 °C \rightarrow +100 °C/+1,400 °C (lubrication/separation) Four-ball test rig (welding load): 3,400 N Thread friction (M10/8.8): μ total = 0.13	150 ml dispenser 250 ml brush tin 1 kg can 5 kg hobbock 25 kg hobbock
	light-coloured white solid lubricants white oil thickener: lithium soap	Operating temperature: -25 °C \rightarrow +150 °C Press-fit: μ = 0.09, no chatter Four-ball test rig (welding load): 2,600 N Thread friction (M10/8,8): μ total = 0.08	250 g can 1 kg can 5 kg hobbock 25 kg hobbock
	light-coloured white solid lubricants polyalphaolefine thickener: lithium soap	Operating temperature: -45 °C \rightarrow +110 °C Four-ball test rig (welding load): 4,200 N Thread friction (M10/8,8): μ total = 0.10	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock
	light-coloured white solid lubricants PTFE white oil thickener: lithium hydroxystearate	Operating temperature: -25 °C \rightarrow +125 °C Press-fit: μ = 0.14, no chatter Four-ball test rig (welding load): 5,000 N Thread friction (M10/8,8): μ total = 0.09	250 g can 1 kg can 5 kg hobbock 25 kg hobbock
pro plastic	white ester thickener: PTFE	Operating temperature: -20 °C → +150 °C Four-ball test rig (welding load): 2,200 N	1 kg can 25 kg hobbock

PASTES FOR EASY ASSEMBLY

AND DISMANTLING



Pastes	Pastes		
Product	Designation	Fields of Application	Purpose
OKS 280	White High Temperature Paste		Lubricating paste for temperature-stressed sliding surfaces Good separating effect through optimal solid lubricant combinations Prevents carburising of tools and workpieces Extends tool lives Use as separating paste at thermoforming processes
OKS 1103	Heat Sink Paste DIN 51 502: MSI3R-40		Protection of sensitive electronic components against overheating High thermal conductivity, 20 times better than at air Electrically insulating No drying out, hardening or bleeding For thermal coupling of electronic components such as sensors, probes, diodes, transistors, etc. to cooling plates
OKS 1105	Insulating Paste analog DIN 51 502: MSI23S-40	Escrado	Sealing lubrication for electrical or electronic equipment Highly adhesive on glass, porcelain and plastics Excellent resistance to chemical and weather-based influences Small change in the dielectric properties across a wide temperature range For protection of insulators and switchgear in a humid atmosphere







Pastes

			Pastes
Properties / Approvals	Main Components	Technical Data	Packaging
	white white solid lubricants mineral oil thickener: lithium soap	Operating temperature: -15 °C \rightarrow +1,150 °C Four-ball test rig (welding load): 2,400 N Thread friction (M10/8,8): μ total = 0.09	1 kg can 5 kg hobbock 25 kg hobbock
	white metal oxides polydimethylsiloxane thickener: inorganic	Operating temperature: -40 °C → +180 °C Thermal conductivity: approx. 0.7 W/mK Dielectric strength (20 °C): approx. 19 kV/mm Thermal capacity (21 °C): approx. 1.03 J/cm³K	40 ml tube 500 g can 5 kg hobbock
pro plastic	light-coloured polydimethylsiloxane thickener: inorganic	Operating temperature: -40 °C → +200 °C Electrical resistivity (25 °C): > 1014Ωcm Dielectric constant: 2.75	500 g can 5 kg hobbock





Oils	Oils			
Product	Designation	Fields of Application	Purpose	
OKS 30	Mo _x -Active Additive		EP additive for universal use as additive to industrial oils Improves the run-in lubrication of new and overhauled machines Smoothing of the surfaces results in lower wear and thermal loading of the lubricant Makes longer lubricating intervals possible	
OKS 300	MoS ₂ Mineral Oil Concentrate		 Additive on MoS₂ and Mo basis Reduces friction, temperature and wear Smoothens the surfaces Creates emergency-running properties Passes common filters, does not react to magnetic filters Additive to gear, engine and machine oils 	
OKS 310	MoS ₂ -High Temperature Lubricating Oil		Lubrication of machine elements up to +450 °C Residue-free evaporation of the base oil above +200 °C Dry lubrication from +200 °C to +450 °C Lubrication in steelworks, foundries, rolling mills, ceramics industry	
OKS 340 OKS 341*	Chain Protector, strongly adhesive 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 Chain O-ring neutral For fast-running chains	
OKS 350	High-Temperature Chain Oil with MoS ₂ , synthetic		 Synthetic oil for machine elements at high temperatures Highly load-bearing capacity due to finest, homogeneous MoS₂ distribution in oil Emergency running propeties through MoS₂ at dry running Outstanding adhesion and lubrication effect with no tendency to drip or dry out Silicone-free 	
OKS 352 OKS 3521*	High Temperature Oil, light-coloured, synthetic DIN 51 502: CLP E 320		Synthetic high-temperature oil Good wear protective through EP additives Excellent oxidation protection, therefore resistant to ageing Low tendency to drip at high temperatures Minimal evaporation losses Residue-free evaporation Good water and steam resistance	
OKS 353	High-Temperature Oil, light-coloured, synthetic ISO VG 100 DIN 51 502: CLP E 100		Synthetic high-temperature oil Good wear protective through EP additives Excellent oxidation protection, therefore resistant to ageing Low tendency to drip at high temperatures Minimal evaporation losses Residue-free evaporation Good cleaning action	



			Oils
Properties / Approvals	Main Components	Technical Data	Packaging
	greenish Mo _x -Active ester	Density (20 °C): 1.03 g/ml Viscosity (40 °C): 70 mm²/s	1 I bottle 5 I canister
	black MoS ₂ Mo _x -Active mineral oil	Density (20 °C): 0.92 g/ml Viscosity (40 °C): approx. 90 mm²/s	1 I bottle 5 I canister 25 I canister 200 I drum
	black MoS ₂ polyglycol	Operating temperature: up to +200 °C/+450 °C Density (20 °C): 1.01 g/ml Viscosity (40 °C): 108 mm²/s Four-ball test rig (welding load): 2,800 N	1 I bottle 5 I canister 25 I canister
+	greenish adhesion improver Mo _x -Active polyisobutylene	Operating temperature: -30 °C → +180 °C Density (20 °C): 0.90 g/ml Viscosity (40 °C): 440 mm²/s Four-ball test rig (welding load): 2,600 N	1 I bottle 5 I canister 25 I canister 200 I drum 400 ml spray*
+	black MoS ₂ Mo _x -Active synthetic oil	Operating temperature: -30 °C \rightarrow +250 °C Density (20 °C): 0.90 g/ml Viscosity (40 °C): 240 mm²/s Coefficient of friction SRV (DIN 51834-2, 50 °C): μ = 0.125 Coefficient of friction SRV (DIN 51834-2, 200 °C): μ = 0.135	5 I canister 25 I canister 200 I drum
	yellowish ester	Operating temperature: -10 °C → +250 °C Density (20 °C): 0.90 g/ml Viscosity (40 °C): 270 mm²/s Four-ball test rig (welding load): 2,400 N	1 I bottle 5 I canister 25 I canister 200 I drum 400 ml spray*
	yellow ester	Operating temperature: -25 °C → +250 °C Density (20 °C): 0.91 g/ml Viscosity (40 °C): 100 mm²/s Four-ball test rig (welding load): 2,000 N	1 I bottle 5 I canister 25 I canister



Oils			
Product	Designation	Fields of Application	Purpose
OKS 354 OKS 3541* Mo _x -Active	High-Temperature Adhesive Lubricant, synthetic analog DIN 51 502: CLP E 4.000		Lubrication of machine elements at high temperatures or strong influence of water Excellent oxidation protection, therefore resistant to ageing Excellent resistance against water, steam and aggressive media Extremely adhesive
OKS 370 OKS 371*	Universal Oil for Food Processing Technology		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 387	High-Temperature Chain Lubricant for the Food Industry ISO VG 220		Synthetic lubricant with graphite for strongly loaded lubrication points at extreme temperatures Reduces wear Excellent lubricating and emergency running properties Base oil that evaporates odourlessly and residue-free above +200°C Try lubrication up to +600°C
OKS 390 OKS 391*	Cutting Oil for all metals 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* ChronoLube System Mo, - Adiro	Chain and Adhesive Lubricant, transparent 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 , waterproof Resistant to throwing off Excellent wear protection Suitable for lubricating flexible drives
OKS 600 OKS 601*	Multi Oil analog DIN 51 502: CL 3		Low-viscosity multipurpose oil Excellent creep properties Excellent corrosion protection Dismantling rusted-in parts Excellent lubricating properties Displaces moisture For cleaning and care of metal surfaces Protects electrical contacts
OKS 631	Multi Oil PLUS with PTFE, Spray		Multifunction oil with PTFE for a wide range of applications in maintenance and servicing Protects reliably against friction and wear even at high loads and slow movements Good protection against corrosion and lubricant film with good adhesive properties through optimal additive combination The good penetration properties allow the lubrication of points that are difficult to access, e.g. joints, hinges and chain inner bearings



				Oils
Properties / Approvals	Main Components	Technical Data	Packaging	
	yellowish Mo _x -Active ester	Operating temperature: -10 °C → +250 °C Density (20 °C): 0.91 g/ml Viscosity (40 °C): 4,000 mm²/s Four-ball test rig (welding load): 2,200 N	1 I bottle 5 I canister 25 I canister 200 I drum 400 ml spray*	
OKS 370: NSF H1 Reg. No. 124382 OKS 371: NSF H1 Reg. No. 124384	colourless white oil	Operating temperature: -10 °C → +180 °C Density (20 °C): 0.88 g/ml Viscosity (40 °C): 14 mm²/s	5 I canister 25 I canister 200 I drum 400 ml spray*	
NSF +	black graphite polyglycol	Operating temperature: max. +600 °C Density (20 °C): 1.04 g/ml Viscosity (40 °C): 190 mm²/s Four-ball test rig (welding load): 2,800 N	5 I canister 25 I canister	
and the second s	yellowish mineral oil	Density (20 °C): 0.87 g/ml Viscosity (40 °C): 22 mm²/s	250 ml bottle 5 l canister 25 l canister 200 l drum 400 ml spray*	
	brown-transparent Mo _x -Active adhesion improver synthetic oil mixture	Operating temperature: -30 °C → +200 °C Base oil viscosity (40 °C): 300 mm²/s Four-ball test rig (welding load): 2,400 N	1 bottle 5 canister 25 canister 200 drum 400 ml spray*	
	brownish transparent mineral oil	Operating temperature: $-30 ^{\circ}\text{C} \rightarrow +60 ^{\circ}\text{C}/150 ^{\circ}\text{C}$ (after evaporation of the solvent) Density (20 $^{\circ}\text{C}$): 0.81 g/ml Base oil viscosity (40 $^{\circ}\text{C}$): approx. 3 mm²/s Salt spray test: $> 50 \text{h}$ Coefficient of friction SRV: $\mu = 0.09$	5 I canister 25 I canister 200 I drum 400 ml spray*	
	beige PTFE mineral oil	Operating temperature: -30 °C \rightarrow +60 °C/100 °C (after evaporation of the solvent) Density (20 °C): 0.83 g/ml Viscosity (40 °C): 4 mm²/s Coefficient of friction SRV: μ = 0.10 Wear SRV: 0.001 mm³ Salt spray test: 50 h	400 ml spray	



Oils			
Product	Designation	Fields of Application	Purpose
OKS 641	Maintenance Oil, Spray		For dismantling, lubrication and care of machine elements and metal surfaces Good cleaning action Temporary protection against corrosion Displaces moisture For use in industry and workshop field
OKS 670 OKS 671*	High-Performance Lube Oil with white Solid Lubricants analog DIN 51 502: CLF 15		Long-term lubrication of machine elements subjected to high pressures, dust or moisture Excellent corrosion protection Good creep properties Lubrication wherever good penetration capacity is the only possibility for relubrication, e.g. at joints, hinges, levers and guides
OKS 700 OKS 701*	Synthetic Oil analog DIN 51 502: CL X 15		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 in precision mechanics or optics
OKS 1010/1	Silicone Oil, 100 cSt		Lubricant and parting agents for plastics and elastomers Also as damping oil Neutral with respect to plastics, elastomers or paints Broad temperature application range Excellent surface wetting Resin and acid-free Viscosity of 100 cSt
OKS 1010/2	Silicone Oil, 1000 cSt		Lubricant and parting agents for plastics and elastomers Also as damping oil Neutral with respect to plastics, elastomers or paints Broad temperature application range Excellent surface wetting Resin and acid-free Viscosity of 1,000 cSt
OKS 1020/2	Silicone Oil, 2000 cSt		Lubricant and parting agents for plastics and elastomers Also as damping oil Neutral with respect to plastics, elastomers or paints Broad temperature application range Excellent surface wetting Resin and acid-free Viscosity of 2,000 cSt
OKS 1035/1	Silicone Oil, 350 cSt		Lubricant and parting agents for plastics and elastomers Also as damping oil Neutral with respect to plastics, elastomers or paints Broad temperature application range Excellent surface wetting Resin and acid-free Viscosity of 350 cSt



				Oils
Properties / Approvals	Main Components	Technical Data	Packaging	
	brown mineral oil	Operating temperature: -30 °C \rightarrow +60 °C/150 °C (after evaporation of the solvent) Density (20 °C): 0.82 g/ml Viscosity (40 °C): 3 mm²/s Coefficient of friction SRV: μ = 0.11 Wear SRV: 0.003 mm³ Salt spray test: > 100 h	400 ml spray	
	beige white solid lubricants mineral oil	Operating temperature: -30 °C \rightarrow +60 °C/150 °C (after evaporation of the solvent) Density (20 °C): 0.82 g/ml Viscosity (40 °C): 18 mm²/s Coefficient of friction SRV: μ = 0.08 Wear SRV: 0.002 mm³ Salt spray test: > 150 h	5 I canister 25 I canister 200 I drum 400 ml spray*	
	light brown polyisobutylene	Operating temperature: -50 °C → +100 °C Density (20 °C): 0.84 g/ml Viscosity (40 °C): 17.5 mm²/s	5 I canister 25 I canister 100 ml spray 400 ml spray*	
pro plastic	transparent polydimethylsiloxane	Operating temperature: -50 °C → +200 °C Density (20 °C): 0.96 - 0.97 g/ml Viscosity (25 °C): 100 mm²/s	1 I bottle 5 I canister 25 I canister 200 I drum	
NSF. Pro plastic P	transparent polydimethylsiloxane	Operating temperature: -50 °C → +200 °C Density (20 °C): 0.96 - 0.97 g/ml Viscosity (25 °C): 1,000 mm²/s	1 bottle 5 canister 25 canister	
pro plastic	transparent polydimethylsiloxane	Operating temperature: -50 °C → +200 °C Density (20 °C): 0.96 - 0.97 g/ml Viscosity (25 °C): 2,000 mm²/s	5 I canister 25 I canister	
NSF pro plastic	transparent polydimethylsiloxane	Operating temperature: -50 °C \rightarrow +200 °C Density (20 °C): 0.96 - 0.97 g/ml Viscosity (25 °C): 350 mm ² /s	1 I bottle 5 I canister 25 I canister 200 I drum	
Reg. No. 154506				

ChronoLube system ISO VG 220 DIN 51 502: CLP HC 220

OILS WITH HIGH-PERFORMANCE ADDITIVES FOR RELIABLE LUBRICATION



Oils			
Olis			
Product	Designation	Fields of Application	Purpose
OKS 1050/0	Silicone Oil, 50 cSt		Lubricant and parting agents for plastics and elastomers Also as damping oil Neutral with respect to plastics, elastomers or paints Broad temperature application range Excellent surface wetting Resin and acid-free Viscosity of 50 cSt
OKS 1050/1	Silicone Oil, 500 cSt		Lubricant and parting agents for plastics and elastomers Also as damping oil Neutral with respect to plastics, elastomers or paints Broad temperature application range Excellent surface wetting Resin and acid-free Viscosity of 500 cSt
OKS 3520	Extreme-Temperature Oil, light-coloured, synthetic DIN 51 502: CLP E 150		Fully synthetic extreme temperature oil Excellent wear protection at extremely high operating temperatures Long period of use through high oxidation stability and minimal evaporation losses at temperatures up to 280 °C For the lubrication of chains, hinges, slideways and clamping and drying frames in conveying systems, painting, stoving and drying installations
OKS 3570 OKS 3571*	High-Temperature Chain Oil for Food Processing Technology ISO VG 320 analog DIN 51 502: CLP E 320		Lubrication of chains, hinges, joints, clamping and drying frames or slideways at high temperatures up to 250 °C Good adhesion on metal surfaces Excellent water resistance Excellent oxidation properties For use in conveying systems, painting, stoving and drying systems of the packaging and food processing industry
OKS 3600 OKS 3601*	Adhesive Oil and High- Performance Corrosion Protection for Food Processing Technology		Excellent corrosion protection of bare machine parts, also for food processing technology Storage and lubrication under corrosive conditions Good creep properties Contains non-ferrous metal deactivator Shipping protection of metal surfaces, packed and unpacked machines under extreme climatic conditions, industrial atmosphere or at outdoor weathering under roof
OKS 3710	Low-Temperature Oil for Food Processing Technology ISO VG 10 DIN 51 502: CL HC 10		Fully synthetic oil for permanently low temperatures Excellent low-temperature behaviour Optimal additives against oxidation and ageing Long economic operating times For use in cold storage houses, shock freezers, etc. MOSH/MOAH-free
OKS 3720	Gear Oil for Food Processing Technology		Fully synthetic Also for the lubrication of rolling, friction bearings, chains and other lubricating points Long operating times due to high temperature and oxidation stability

Good wear protection

Resistant to steam, alkali and acid disinfectants and cleaning agents



			Oils
Properties / Approvals	Main Components	Technical Data	Packaging
pro plastic	transparent polydimethylsiloxane	Operating temperature: -50 °C → +200 °C Density (20 °C): 0.96 - 0.97 g/ml Viscosity (25 °C): 50 mm²/s	1 bottle 5 canister 25 canister
pro plastic	transparent polydimethylsiloxane	Operating temperature: -50 °C → +200 °C Density (20 °C): 0.96 - 0.97 g/ml Viscosity (25 °C): 500 mm²/s	5 I canister
	yellowish ester	Operating temperature: -10 °C → +280 °C Density (20 °C): 0.97 g/ml Viscosity (40 °C): 150 mm²/s	5 I canister 25 I canister 200 I drum
OKS 3570: NSF H1 Reg. No. 145347 OKS 3571: NSF H1 Reg. No. 147769	yellowish-red synthetic oil	Operating temperature: -10 °C → +250 °C Density (20 °C): 0.87 g/ml Viscosity (40 °C): 300 mm²/s	5 I canister 25 I canister 200 I drum 400 ml spray*
OKS 3600: NSF H1 Reg. No. 153877 OKS 3601: NSF H1 Reg. No. 154933	yellow-brown polyalphaolefine	Operating temperature: -40 °C → +80 °C Density (20 °C): 0.81 g/ml Viscosity (40 °C): > 21.5 mm²/s Salt spray test: > 100 h	5 I canister 25 I canister 400 ml spray*
NSF	colourless polyalphaolefine	Operating temperature: -60 °C → +135 °C Density (20 °C): 0.80 g/ml Viscosity (40 °C): 7.25 mm²/s	5 I canister 25 I canister 200 I drum
NSF FREE	colourless-yellow synthetic oil mixture	Operating temperature: -30 °C → +120 °C Density (20 °C): 0.86 g/ml Viscosity (40 °C): 220 mm²/s FZG damage level: power level > 12	5 I canister 25 I canister 200 I drum
Reg. No. 135752			



Oils			
Product	Designation	Fields of Application	Purpose
OKS 3725	Gear Oil for Food Processing Technology ISO VG 320 DIN 51 502: CLP HC 320	O S S C	Fully synthetic Also for the lubrication of rolling, friction bearings, chains and other lubricating points Long operating times due to high temperature and oxidation stability Good wear protection Resistant to steam, alkali and acid disinfectants and cleaning agents
OKS 3730	Gear Oil for Food Processing Technology ISO VG 460 DIN 51 502: CLP HC 460		 Fully synthetic Also for the lubrication of rolling, friction bearings, chains and other lubricating points Long operating times due to high temperature and oxidation stability Good wear protection Resistant to steam, alkali and acid disinfectants and cleaning agents
OKS 3740	Gear Oil for Food Processing Technology ISO VG 680 DIN 51 502: CLP HC 680		 Fully synthetic Also for the lubrication of rolling, friction bearings, chains and other lubricating points Long operating times due to high temperature and oxidation stability Good wear protection Resistant to steam, alkali and acid disinfectants and cleaning agents
OKS 3750 OKS 3751*	Adhesive Lubricant with PTFE ISO VG 100 DIN 51 502: CLPF HC 100		Lubricating oil with PTFE Long operating times due to high temperature and oxidation stability Excellent wear protection , adheres well High pressure absorption capacity Resistant to steam, alkali and acid disinfectants and cleaning agents Tasteless and odourless, MOSH/MOAH-free
ChronoLube System	Multipurpose Oil for Food Processing Technology ISO VG 100 analog DIN 51 502: HLP HC 100, VDL HC 100		 Fully synthetic multipurpose oil Also suitable as compressor- or hydraulic oil Long operating times due to high temperature and oxidation stability Good wear protection Resistant to steam, alkali and acid disinfectants and cleaning agents Tasteless and odourless
OKS 3770	Hydraulic Oil for Food Processing Technology ISO VG 46 DIN 51 502: VDL HC 46, HLP HC 46		 Fully synthetic oil for hydraulic systems, as well as other machine elements For screws and multiple vane rotary vacuum pumps Long operating times due to high temperature and oxidation stability Good wear protection Resistant to steam, alkali and acid disinfectants and cleaning agents
OKS 3775	Hydraulic Oil for Food Processing Technology ISO VG 32 DIN 51 502: VDL HC 32, HLP HC 32		Fully synthetic oil for hydraulic systems, as well as other machine elements For screws and multiple vane rotary vacuum pumps Long operating times due to high temperature and oxidation stability Good wear protection Resistant to steam, alkali and acid disinfectants and cleaning agents



			Oils
Properties / Approvals	Main Components	Technical Data	Packaging
NSF. Most	colourless-yellow synthetic oil mixture	Operating temperature: -30 °C → +120 °C Density (20 °C): 0.85 g/ml Viscosity (40 °C): 320 mm²/s FZG damage level: power level > 12	5 I canister 25 I canister
OKS 3725: NSF H1 Reg. No. 143596			
NSF. MSF FREE	colourless-light yellow synthetic oil mixture	Operating temperature: -30 °C → +120 °C Density (20 °C): 0.86 g/ml Viscosity (40 °C): 460 mm²/s FZG damage level: power level > 12	5 I canister 25 I canister 200 I drum
OKS 3730: NSF H1 Reg. No. 135753			
NSF. MOSH	colourless synthetic oil mixture	Operating temperature: -25 °C → +120 °C Density (20 °C): 0.86 g/ml Viscosity (40 °C): 680 mm²/s FZG damage level: power level > 12	5 I canister 25 I canister
OKS 3740: NSF H1 Reg. No. 135754			
OKS 3750: NSF H1 Reg. No. 124383 OKS 3751: NSF H1 Reg. No. 124801	whitish PTFE polyalphaolefine	Operating temperature: -35 °C → +180 °C Density (20 °C): 0.85 g/ml Viscosity (40 °C): 100 mm²/s Four-ball test rig (welding load): 3,000 N	5 I canister 400 ml spray*
NSF	colourless polyalphaolefine	Operating temperature: -35 °C → +135 °C Density (20 °C): 0.84 g/ml Viscosity (40 °C): 100 mm²/s	1 I bottle 5 I canister 25 I canister 200 I drum
OKS 3760: NSF H1 Reg. No. 129964			
NSF	colourless polyalphaolefine	Operating temperature: -40 °C → +135 °C Density (20 °C): 0.84 g/ml Viscosity (40 °C): 50 mm²/s	5 I canister 25 I canister 200 I drum
OKS 3770: NSF H1 Reg. No. 129962			
NSF	colourless polyalphaolefine	Operating temperature: -45 °C → +135 °C Density (20 °C): 0.83 g/ml Viscosity (40 °C): 32 mm²/s	5 I canister 25 I canister 200 I drum
OKS 3775: NSF H1 Reg. No. 143597			



Oils			
Product	Designation	Fields of Application	Purpose
OKS 3780	Hydraulic Oil for Food Processing Technology		Fully synthetic oil for hydraulic systems, as well as other machine elements For screws and multiple vane rotary vacuum pumps Long operating times due to high temperature and oxidation stability
	ISO VG 68 DIN 51 502: HLP HC 68, VDL HC 68		Good wear protection Resistant to steam, alkali and acid disinfectants and cleaning agents
OKS 3790	Sugar-Dissolving Oil, fully synthetic		For dissolving sugar deposits and cleaning machine parts Lubrication of precision mechanisms Forming lubricant for packaging Good cleaning and lubrication effect Good wear and corrosion protection Tasteless and odourless emulsion Specially for use in the sweets industry
OKS 8600 OKS 8601*	ISO VG 32 analog DIN 51 502: CLX 32		Universal biodegradable multipurpose oil in the temperature range up to 160°C Good creep and lubrication properties VOC-free Silicone-free For use in forestry, agriculture and water management





			Oils
Properties / Approvals	Main Components	Technical Data	Packaging
NSF	colourless polyalphaolefine	Operating temperature: -40 °C → +135 °C Density (20 °C): 0.83 g/ml Viscosity (40 °C): 66 mm²/s	5 I canister 25 I canister 200 I drum
OKS 3780: NSF H1 Reg. No. 136036			
NSF FREE	colourless polyglycol water	Operating temperature: -5 °C → +80 °C Density (20 °C): 1.06 g/ml Viscosity (40 °C): 20 - 24 mm²/s	5 I canister 25 I canister
OKS 3790: NSF H1 Reg. No. 128470			
	yellowish-light brown ester	Operating temperature: -5 °C → +160 °C Density (20 °C): 0.92 g/ml Viscosity (40 °C): 35 - 40 mm²/s	5 I canister 25 I canister 200 I drum 300 ml spray*
biodegradability: CEC-L-33-T-82 > 90 %			



GREASES FOR LONG-TERM LUBRICATION UNDER CRITICAL OPERATION CONDITIONS



Product	Designation	Fields of Application	Purpose
ChronoLube	MoS₂ Multipurpose High- Performance Grease		 For heavily loaded or impact-loaded rolling and friction bearings, spindles and joints Forms an MoS₂ sliding film for emergency running properties Reduces wear Resistant to ageing and oxidation
System	DIN 51 502: KPF2K-30		High-pressure grease for universal use
OKS 402	Ball-Bearing High- Performance Grease DIN 51 502: K2K-30		For machine elements such as rolling 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 403	Marine Grease		Lubrication of machine elements subjected to wa or sea water Excellent corrosion protection Adheres well Has proven itself in wet operating environments a in coastal and marine areas Suitable as water pump grease
ChronoLube System	High-Performance and High-Temperature Grease		For lubricating high pressure loaded rolling and friction bearings in a wide temperature range Reduces wear Good pressure resistance Good water resistance Resistant to ageing and oxidation Good corrosion protection Modern grease with a wide range of applications
ChronoLube System	MoS ₂ High-Pressure Long-Life Grease DIN 51 502: KPF2K-20		Long-term lubrication of lubrication points subject to pressure or impacts also under outdoor expose Good emergency running properties Excellent wear protection Good water resistance Highly adhesive For harsh conditions, e.g. in rolling mills, construction and agricultural machines, in mining and port operations
DKS 416	Low-Temperature and High-Speed Grease DIN 51 502: KPE2K-50		Supple consistency, also at low temperatures Good wear protection High dynamic load-bearing capacity Good corrosion protection Reliable lubrication of conveying equipment and spindle bearings in cold storage houses Suitable as instrument grease
OKS 418	High-Temperature Grease analog DIN 51 502:		Lubrication of friction and rolling bearings at high-temperatures Long-term lubrication of lubrication points subject to high pressure Good wear protection Good resistance to oxidation and ageing



			Greases
Properties / Approvals	Main Components	Technical Data	Packaging
	black MoS ₂ EP additives mineral oil thickener: 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): 100 mm²/s Four-ball test rig (welding load): 3,600 N	80 ml tube 400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	beige mineral oil thickener: lithium soap	Operating temperature: -30 °C → +120 °C NLGI grade: 2 DN factor (dm x n): 500,000 mm/min Base oil viscosity (40 °C): 110 mm²/s Four-ball test rig (welding load): 2,000 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock
	brown mineral oil thickener: calcium soap	Operating temperature: -25 °C → +80 °C NLGI grade: 1-2 DN factor (dm x n): 350,000 mm/min Base oil viscosity (40 °C): 100 mm²/s Four-ball test rig (welding load): 3,000 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	light-coloured polyalphaolefine mineral oil thickener: lithium-complex soap	Operating temperature: -30 °C → +150 °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): 2,800 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	grey MoS ₂ Mo _x -Active mineral oil thickener: lithium hydroxystearate	Operating temperature: -20 °C → +130 °C NLGI grade: 2 DN factor (dm x n): 500,000 mm/min Base oil viscosity (40 °C): 185 mm²/s Four-ball test rig (welding load): 3,600 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
biodegradability: CEC-L-33-A94 > 70 %	yellow mineral oil ester thickener: lithium soap	Operating temperature: -50 °C → +120 °C NLGI grade: 2 DN factor (dm x n): 1,000,000 mm/min Base oil viscosity (40 °C): 15 mm²/s Four-ball test rig (welding load): 2,400 N	400 ml cartridge 1 kg can 5 kg hobbock
+1	black MoS ₂	Operating temperature: -25 °C → +150 °C NLGI grade: 2 DN factor (dm × n): 400 000 mm/min	1 kg can 5 kg hobbock 25 kg hobbock

DN factor (dm x n): 400,000 mm/min Base oil viscosity (40 °C): 220 mm²/s

mineral oil thickener: silicate 25 kg hobbock

GREASES FOR LONG-TERM LUBRICATION **UNDER CRITICAL OPERATION CONDITIONS**



Product	Designation	Fields of Application	Purpose
ChronoLube System	High-Temperature Multipurpose Grease analog DIN 51 502: KP1-2P-10		For rolling and friction bearings, slow-running gears and chains at high temperatures, impact and pressure loads or water influences Extremely impact and pressure-resistant Good wear protection Highly adhesive For universal use at increased requirements Also available as fluid grease, NLGI 00
OKS 422	Universal Grease for Long-Life Lubrication		For rolling and friction bearings and spindles at extreme temperatures or high speeds Extremely impact and pressure-resistant Excellent wear protection Long regreasing intervals
System	DIN 51 502: KPHC2N-40		Use outside normal performance areas Spindle bearing lubrication at machine tools
OKS 424	Synthetic High- Temperature Grease DIN 51 502: KHC1-2S-40		For rolling and friction bearings at high temperature and high loads Good temperature resistance Good plastic and elastomer compatibility Good resistance against aggressive environmental influences Suitable for lubrication of exhaust-gas fans
OKS 425	Synthetic Long-Life Grease DIN 51 502: KPHC2K-50		Long-term or for-life lubrication of machine elements that are subjected to high pressures and high temperatures Excellent wear protection For high speeds Good temperature resistance Spindle-bearing lubrication
OKS 427	Gear and Bearing Grease analog DIN 51 502: GP0/00P-10		For relatively slow-running gears, alternatively to oil lubrication Lubrication of drive and transport chains, rolling an friction bearings For high pressures, also at impact loads Minimising of the losses for leaks in comparison to oil lubrication Excellent wear protection
OKS 428	Fluid Grease for Gears, synthetic DIN 51 502: GPPG00K-40		For heavily loaded gearing exposed to weather outdoors and/or low temperatures, as well as angled or vertical shafts, also with gear designs which are not oil-tight For friction bearings with low clearance or high speeds For high pressures and impact loads
OKS 432	High Melting-Point Grease DIN 51 502: KP2R-20		For rolling and friction bearings and similar components, at high loads and temperatures Excellent wear protection Good resistance to oxidation and ageing Good pressure resistance Maintenance of lubricating effect even at high temperatures
OKS 433	Long-Acting High- Pressure Grease		 For friction and rolling bearings at high pressures EP additives Good wear protection Good resistance to oxidation and ageing For heavily loaded rolling and taper roller bearings, e.g. on rolling stands, hot and cold shearing



Greases

Properties / Approvals	Main Components	Technical Data	Packaging
	beige Mo _x -Active mineral oil thickener: polycarbamide	Operating temperature: -10 °C → +160 °C NLGI grade: 1-2 DN factor (dm x n): 300,000 mm/min Base oil viscosity (40 °C): 490 mm²/s	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	light-coloured polyalphaolefine thickener: barium-complex soap	Operating temperature: -40 °C → +140 °C NLGI grade: 2 DN factor (dm x n): 800,000 mm/min Base oil viscosity (40 °C): 50 mm²/s Four-ball test rig (welding load): 3,400 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	beige polyalphaolefine thickener: polycarbamide	Operating temperature: -40 °C → +200 °C NLGI grade: 1-2 DN factor (dm x n): 500,000 mm/min Base oil viscosity (40 °C): 400 mm²/s	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	beige polyalphaolefine thickener: special calcium soap	Operating temperature: -50 °C → +130 °C NLGI grade: 2 DN factor (dm x n): 1,000,000 mm/min Base oil viscosity (40 °C): 30 mm²/s Four-ball test rig (welding load): 3,400 N	400 ml cartridge 1 kg can
	brownish mineral oil synthetic oil thickener: polycarbamide	Operating temperature: -15 °C → +160 °C NLGI grade: 0-00 Base oil viscosity (40 °C): 490 mm²/s	1 kg can 5 kg hobbock 25 kg hobbock
	brown polyglycol thickener: lithium hydroxystearate	Operating temperature: -30 °C → +120 °C NLGI grade: 00 DN factor (dm x n): 600,000 mm/min Base oil viscosity (40 °C): 120 mm²/s Four-ball test rig (welding load): 3,000 N	1 kg can 5 kg hobbock 25 kg hobbock
+	brown mineral oil thickener: aluminium-complex soap	Operating temperature: -25 °C → +190 °C NLGI grade: 2 DN factor (dm x n): 200,000 mm/min Base oil viscosity (40 °C): 230 mm²/s Four-ball test rig (welding load): 2,800 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	red-brown mineral oil thickener: lithium hydroxystearate	Operating temperature: -20 °C → +120 °C NLGI grade: 2 DN factor (dm x n): 400,000 mm/min Base oil viscosity (40 °C): 185 mm²/s Four-ball test rig (welding load): 2,600 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock

GREASES FOR LONG-TERM LUBRICATION UNDER CRITICAL OPERATION CONDITIONS



Product	Designation	Fields of Application	Purpose
OKS 464	Electrically Conductive Rolling Bearing Grease DIN 51 502: KHC2N-40		Special grease for long-term lubrication of rolling and friction bearings for avoiding electrostatic charging Good resistance to oxidation and ageing in rolling bearings For bearings in motors, sheet drawing systems, sheet printing machines, etc.
OKS 468	Plastic and elastomer lubricant		Lubricating and sealing grease for plastic/plastic and plastic/metal combinations Good elastomer and plastic compatibility EPDM compatible Silicone-free, highly adhesive Tasteless and odourless
OKS 469	Plastic and Elastomer Grease		Lubricating and sealing grease for plastic/plastic and plastic/metal combinations Good elastomer and plastic compatibility Silicone-free Highly adhesive Does not affect the quality properties of beer foar Tasteless and odourless
DKS 470 DKS 471*	White Universal High- Performance Grease DIN 51 502: KF2K-30		For heavily loaded rolling and friction bearings, spindles and slideways when dark-coloured lubricants cannot be used Good pressure properties Reduces wear Resistant to ageing and oxidation Waterproof
OKS 472	Low-Temperature Grease for Food Processing Technology DIN 51 502: KHC1K-40		 Lubrication of rolling and friction bearings with minimal bearing play and high speeds, at low temperatures as well as low coasting torques Functionality of the lubricating film up to -70°C Reduces wear Good resistance to ageing and oxidation For bearings in cold storage houses, ice factories etc.
OKS 473	Fluid Grease for food processing technology analog DIN 51 502: KPHC00K-40, GPHC00K-40		For closed gears, rolling and friction bearings, joi or chains if grease lubrication is provided for Also suitable for higher speed, minimal bearing por slight gear clearance Reduces wear, waterproof Can be conveyed well using central lubricating systems
DKS 475	High-Performance Grease DIN 51 502: KFHC2K-60		For bearings with minimal bearing play and high speeds, at low and high temperatures and for bearings with low coasting torque Good wear protection through PTFE Lubrication of components made of glass fibre reinforced plastic For fast-running bearings in the textile industry, i filling and packaging machines
OKS 476	Multipurpose Grease for Food Processing Technology analog DIN 51 502:		For rolling and friction bearings and other machinelements Resistant to cold and hot water as well as disinfectants and cleaning agents Resistance to oxidation Reduces wear Multipurpose grease for universal use in food



Greases

			02 00200
Properties / Approvals	Main Components	Technical Data	Packaging
+ pro plastic	black carbon polyalphaolefine thickener: lithium soap	Operating temperature: -40 °C → +150 °C NLGI grade: 2 DN factor (dm x n): 1,000,000 mm/min Base oil viscosity (40 °C): 150 mm²/s Specific resistivity: max. 10,000 Ω*cm	400 ml cartridge 1 kg can
NSF Pro plastic Mosh FREE OKS 468: NSF H1 Reg. No. 135591	transparent polyalphaolefine thickener: inorganic	Operating temperature: -25 °C → +150 °C Base oil viscosity (40 °C): 1,700 mm²/s	1 kg can 5 kg hobbock
OKS 469: NSF H1 Reg. No. 131380 Tested for beer foam compatibility	transparent polyalphaolefine thickener: inorganic	Operating temperature: -25 °C → +150 °C NLGI grade: 2 Base oil viscosity (40 °C): 400 mm²/s	1 kg can
NSF OKS 470: NSF H2 Reg. No. 137707	white white solid lubricants mineral oil thickener: lithium hydroxystearate	Operating temperature: -30 °C → +120 °C NLGI grade: 2 DN factor (dm x n): 300,000 mm/min Base oil viscosity (40 °C): approx. 110 mm²/s Four-ball test rig (welding load): 3,600 N	80 ml tube 400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum 400 ml spray*
NSF pro plastic pro plasti	whitish ester polyalphaolefine thickener: aluminium-complex soap	Operating temperature: -45 °C → +120 °C NLGI grade: 1 DN factor (dm x n): 800,000 mm/min Base oil viscosity (40 °C): 30 mm²/s	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock
NSF	light yellow polyalphaolefine thickener: aluminium-complex soap	Operating temperature: -45 °C → +120 °C NLGI grade: 0-00 DN factor (dm x n): 500,000 mm/min Base oil viscosity (40 °C): 160 mm²/s	1 kg can 5 kg hobbock 25 kg hobbock
NSF pro plastic pro plasti	beige PTFE polyalphaolefine thickener: lithium hydroxystearate	Operating temperature: -60 °C → +120 °C NLGI grade: 2 DN factor (dm x n): 1,000,000 mm/min Base oil viscosity (40 °C): approx. 30 mm²/s Four-ball test rig (welding load): 2,000 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 170 kg drum
OKS 476: NSF H1 Reg. No. 137619	white semi-synthetic oil thickener: aluminium-complex soap	Operating temperature: -30 °C → +110 °C NLGI grade: 2 DN factor (dm x n): 400,000 mm/min Base oil viscosity (40 °C): 240 mm²/s Four-ball test rig (welding load): 2,200 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum

GREASES FOR LONG-TERM LUBRICATION **UNDER CRITICAL OPERATION CONDITIONS**



Greases	5		
di cuses			
Product	Designation	Fields of Application	Purpose
OKS 477	Valve Grease for Food Processing Technology		Sealing lubrication of adapted sliding surfaces Lubrication of plastics and elastomers Lubrication of slow-running bearings Highly adhesive, seals well Resistant to water and steam Does not affect the quality properties of beer foam Can also be used as sealing grease
	DIN 51 502: MHC3N-10		
NeW	Plastic and Elastomer Grease analog DIN 51 502:		Lubricating and sealing grease for plastic/plastic and plastic/metal combinations Good elastomer and plastic compatibility Silicone-free, highly adhesive Resistant to hot and cold water Good resistance to oxidation and ageing
	MHC3S-40		MOSH/MOAH-free
OKS 479 ChronoLube	High-Temperature Grease for Food Processing Technology analog DIN 51 502:		 Lubrication of rolling and friction bearings at increased operating temperatures Good adhesive strength on metal surfaces Resistant to hot and cold water, water vapour, watery-alkaline and acidic disinfectants and cleaning agents Good resistance to oxidation and ageing For all sections of the food processing, beverage
System	KPHC1K-30		and pharmaceutical industries
OKS 480 OKS 481*	Waterproof High- Pressure Grease for Food Processing Technology analog DIN 51 502: KPHC2P-30		 For heavily loaded rolling and friction bearings in food processing technology Excellent resistance to hot and cold water as well as disinfectants and cleaning agents Excellent corrosion protection High shear, temperature and oxidation stability
OKS 490	Gear lubrication grease,		For gears with highest pressures and high circum-
	sprayable DIN 51 502: OG PF 0 S-30		ferential speeds Lubrication of guides and slide rails Excellent pressure resistance through EP additives and solid lubricants Protection of the tooth flanks, also at long relubrication intervals
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 Prevents adhesion of dust and dirt
	DIN 51 502: OG PF 0 S-30		
OKS 495	Adhesive Lubricant		Priming of heavily loaded tooth flanks and sliding surfaces Run-in lubrication to avoid damage Excellent pressure resistance Lubrication of jackscrews in the motor vehicle and train technology Gear rack lubrication in conveying equipment
	DIN 51 502: OGPF1S-30		aca rack identication in conveying equipment



			Greases
Properties / Approvals	Main Components	Technical Data	Packaging
OKS 477: NSF H1 Reg. No. 135750 Tested for beer foam compatibility UBA guideline (D): test certificate C-130913-05-Sf/st	light brown polyalphaolefine thickener: silicate	Operating temperature: -10 °C → +140 °C NLGI grade: 3 Base oil viscosity (40 °C): 1,600 mm²/s	80 ml tube 1 kg can 5 kg hobbock
NSF. Most Most Most Most Most Most Most Most	beige polyalphaolefine thickener: inorganic	Operating temperature: -40 °C → +200 °C NLGI grade: 3 Base oil viscosity (40 °C): > 1,700 mm²/s	1 kg can 5 kg hobbock
NSF +	beige polyalphaolefine thickener: aluminium-complex soap	Operating temperature: -35 °C → +120 °C (briefly +160 °C) NLGI grade: 1 DN-factor (dm x n): 500,000 mm/min Base oil viscosity (40 °C): 360 mm²/s	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock
Reg. No. 135675			
OKS 480: NSF H1 Reg. No. 148971 OKS 481: NSF H1 Reg. No. 153878	beige polyalphaolefine thickener: calcium sulphonate complex soap	Operating temperature: -30 °C → 160 °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): 4,000 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 400 ml spray*
	black graphite EP additives mineral oil thickener: aluminium soap	Operating temperature: -30 °C → +220 °C NLGI grade: 0 Base oil viscosity (40 °C): 1,000 mm²/s Four-ball test rig (welding load): approx. 6,500 N FZG damage level: power level > 12	1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
	black graphite bitumen EP additives mineral oil thickener: aluminium soap	Operating temperature: -30 °C → +100 °C	400 ml spray
	black graphite EP additives mineral oil synthetic oil thickener: aluminium-complex soap	Operating temperature: -40 °C → +200 °C NLGI grade: 1 Base oil viscosity (40 °C): 500 mm²/s Four-ball test rig (welding load): 4,200 N FZG damage level: power level > 12	1 kg can 5 kg hobbock 25 kg hobbock

Greases

GREASES FOR LONG-TERM LUBRICATION UNDER CRITICAL OPERATION CONDITIONS



Greases			
Product	Designation	Fields of Application	Purpose
OKS 1110 OKS 1111*	Multi-Silicone Grease		For fittings, seals and plastic parts Resistant to media Excellent compatibility to plastic No drying out or bleeding Highly adhesive, tasteless and odourless Silicone grease for a broad range of applications
	DIN 51 502: MSI3S-40		
OK5 1112	Silicone Grease for Vacuum Valves DIN 51 502: MSI3S-30		For slide valves and valves Excellent media resistance, e.g. to cold and hot water, acetone, ethanol, ethylene glycol, glycerin and methanol Adheres and seals well For use in vacuum plants and laboratory equipment
OKS 1133	Low-Temperature Silicone Grease		Lubrication of rolling and friction bearings, bowden cables and fittings Neutral with regard to plastics and elastomers Lubrication of motors, drives, control systems under arctic conditions
OKS 1140	DIN 51 502: KSI2S-70 Extreme-Temperature		For slow-running machine elements at extremely
ORS 1140	Silicone Grease		high temperatures Minimal evaporation losses For bearings at kilns, hardening furnaces, bakery machines, drying tunnels, foundry machines, boiler firing systems, plastics processing machines or welding and soldering machines etc.
OKS 1144	Universal Silicone Grease DIN 51 502: KSI2S-40		For bearings at changing temperatures and medium speeds Good resistance to oxidation and ageing Neutral with regard to plastics and elastomers Lubrication of smaller bearings, e.g of turbo-superchargers, blowers, water pumps, washing machines and driers
OKS 1149	Silicone Grease with PTFE analog DIN 51 502: KFSI2-3R-50		Lubrication of plastic/plastic, plastic/metal, and elastomer/metal combinations at low to medium bearing loads and speeds Use in a broad temperature range and good low temperature conditions High oxidation stability Excellent corrosion protection
OKS 1155	Adherent Silicone Grease DIN 51 502: MSI2R-60		For sliding points between rubber and metals or plastics at low speeds Excellent resistance to oxidation and ageing Neutral with regard to plastics and elastomers Highly adhesive. Seals well For O-rings in pneumatic systems of brake systems



Greases

			0: 0::505
Properties / Approvals	Main Components	Technical Data	Packaging
OKS 1110: NSF H1 Reg. No. 124381 Tested for beer foam compatibility UBA guideline (D): test certificate KA 0432/15 ACS-conformity to positive lists (F): test certificate 17 CLP NY 015	transparent polydimethylsiloxane thickener: inorganic	Operating temperature: -40 °C → +200 °C NLGI grade: 3 Base oil viscosity (40 °C): 9,500 mm²/s	4 g tube 10 ml tube 80 ml tube 400 ml cartridge 500 g can 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum 400 ml spray*
pro plastic	transparent polydimethylsiloxane thickener: inorganic	Operating temperature: -30 °C → +200 °C NLGI grade: 3 Base oil viscosity (40 °C): 100,000 mm²/s Evaporation loss (24h/200 °C): < 3.0 percent in weight	500 g can 5 kg hobbock 25 kg hobbock
pro plastic	transparent polyphenylmethylsiloxane thickener: lithium hydroxystearate	Operating temperature: -73 °C → +200 °C NLGI grade: 2 DN factor (dm x n): 200,000 mm/min Base oil viscosity (25 °C): 100 mm²/s Four-ball test rig (welding load): 1,200 N	500 g can 5 kg hobbock 25 kg hobbock
+	black polyphenylmethylsiloxane thickener: special carbon black	Operating temperature: -20 °C → +290 °C NLGI grade: 2 DN factor (dm x n): 75,000 mm/min Base oil viscosity (40 °C): 100 mm²/s Four-ball test rig (welding load): 2,100 N	500 g can 5 kg hobbock 25 kg hobbock
pro plastic	beige polyphenylmethylsiloxane thickener: lithium hydroxystearate	Operating temperature: -40 °C → +200 °C NLGI grade: 2 DN factor (dm x n): 300,000 mm/min Base oil viscosity (25 °C): 125 mm²/s Four-ball test rig (welding load): 1,100 N	500 g can 5 kg hobbock 25 kg hobbock
pro plastic	white PTFE EP additives silicone oil thickener: lithium-complex soap	Operating temperature: -50 °C → +180 °C NLGI grade: 2-3 Base oil viscosity (25 °C): 200 mm²/s	400 ml cartridge 500 g can 5 kg hobbock 25 kg hobbock
pro plastic	beige ester polyphenylmethylsiloxane thickener: lithium hydroxystearate	Operating temperature: -65 °C → +175 °C NLGI grade: 2 Base oil viscosity (25 °C): 100 mm²/s	500 g can 5 kg hobbock 25 kg hobbock

GREASES FOR LONG-TERM LUBRICATION UNDER CRITICAL OPERATION CONDITIONS



Greases	eases			
Product	Designation	Fields of Application	Purpose	
OKS 4100	MoS₂ Extreme Pressure Grease DIN 51 502: KPF2K-20		For slow-running rolling and friction bearings at very high, also shock-type loads Good emergency running properties through MoS2 sliding film Excellent wear protection Good water resistance, also during high quantities of water Highly adhesive For harsh operating conditions, e.g. in stone crushers	
OKS 4200	Synthetic High- Temperature Bearing Grease with MoS ₂ DIN 51 502: KHCF2R-10		Long-term lubrication of rolling and friction bearings subjected to high temperatures Extremely impact and pressure-resistant Excellent wear protection Functionally reliable across a wide temperature range For fans, blowers, autoclaves, drying ovens, systems in metallurgical works and steelworks	
OKS 4210 ChronoLube	Extreme Temperature Grease DIN 51 502: KFFK2U-20		Long-term lubrication of rolling and friction bearings subjected to extremely high temperatures Resistant to water, steam and chemicals Excellent wear protection Excellent plastic and elastomer compatibility For bearings in burn-in and drying furnaces, boiler plants, roller and conveyor rollers in continuous furnaces	
OKS 4220	Extreme-Temperature Bearing Grease analog DIN 51 502:		Long-term lubrication of rolling and friction bearings Excellent temperature resistance Excellent media resistance Excellent plastic and elastomer compatibility Excellent water, steam resistance Excellent wear protection	
	KFFK2U-30			
OKS 4240	Special Grease for Ejector Pins		Long-term lubrication of rolling and friction bearings at extremely high temperatures and aggressive media Resistant to plastics or elastomers Excellent temperature resistance For the lubrication of ejector pins in the plastics	
	DIN 51 502: MFFK2U-20		industry	



			Greases
Properties / Approvals	Main Components	Technical Data	Packaging
	black graphite MoS ₂ mineral oil thickener: lithium-calcium soap	Operating temperature: -20 °C → +120 °C NLGI grade: 2 DN factor (dm x n): 100,000 mm/min Base oil viscosity (40 °C): 1,020 mm²/s Four-ball test rig (welding load): > 4,000 N	400 ml cartridge 5 kg hobbock 25 kg hobbock
	black MoS ₂ special mineral oil polyalphaolefine thickener: bentonite	Operating temperature: -10 °C → +180 °C NLGI grade: 2 DN factor (dm x n): 400,000 mm/min Base oil viscosity (40 °C): 220 mm²/s Four-ball test rig (welding load): 2,600 N	400 ml cartridge 1 kg can 5 kg hobbock 25 kg hobbock 180 kg drum
+ Propissio	white PTFE perfluoropolyether (PFPE) thickener: PTFE	Operating temperature: -20 °C → +280 °C NLGI grade: 2 DN factor (dm x n): 300,000 mm/min Base oil viscosity (40 °C): 510mm²/s Four-ball test rig (welding load): 9,000 N	800 g cartridge 1 kg can 5 kg hobbock 25 kg hobbock
NSF + Propiestic Propi	white PTFE perfluoropolyether (PFPE) thickener: PTFE	Operating temperature: -30 °C → +280 °C NLGI grade: 2 DN factor (dm x n): 300,000 mm/min Base oil viscosity (40 °C): 510 mm²/s Four-ball test rig (welding load): > 10,000 N	40 ml tube 500 g can 800 g cartridge 1 kg can 5 kg hobbock 25 kg hobbock
	white PTFE perfluoropolyether (PFPE) thickener: inorganic	Operating temperature: -20 °C → +300 °C NLGI grade: 2 DN factor (dm x n): 350,000 mm/min Base oil viscosity (40 °C): 440 mm²/s Four-ball test rig (welding load): 4,800 N	250 g dispenser 1 kg can

DRY LUBRICANTS – THE ALTERNATIVE FOR SPECIAL APPLICATION CASES



	pricants		
Product	Designation	Fields of Application	Purpose
OKS 100	MoS₂ Powder, high degree of purity		To improve the sliding properties of machine elements Run-in lubricant in combination with oil or grease lubrication Prevents friction and wear Not electroconductive For integration in plastics, seals and packings
DKS 110 DKS 111*	MoS₂ Powder, microsize		Run-in lubricant in combination with oils or greas Not electroconductive For pressing in bearings Prevents friction and wear, even at high pressure Good adhesion, even at extremely precision-machined surfaces
OKS 510 OKS 511*	MoS₂ Bonded Coating, fast-drying		Dry lubrication for temporary operation or long downtimes, industry environments and at low sliding speeds Run-in lubricant in combination with oils or greas Creates emergency-running properties Dries at room temperature
OKS 521	MoS ₂ Bonded Coating, air-hardening, Spray		 Air-hardening bonded coating on MoS₂-graphite basis Dry lubrication of machine elements subject to h demands Use in a broad temperature range at low to medi rotational speeds Rapid curing at room temperature Thin film layer
OKS 530	MoS₂ Bonded Coating, water-based, air-drying		Lubrication of heavily loaded chains when oil and grease lubrication is no longer possible Wear protection for increased service life No adhesion of dust and dirt Good adhesion to metal Can be used under vacuum Can be diluted with water in ratio of up to 1:1
OKS 536	Graphite Bonded Coating, water-based, air-drying		Lubrication of heavily loaded chains when oil and grease lubrication is no longer possible Can be sprayed onto hot surfaces Use in a broad temperature range Dries at room temperature Spent sliding film can be topped up Can be diluted with water in ratio of up to 1:5
OKS 570 OKS 571*	PTFE Bonded Coating		Dry lubrication of sliding surfaces of different materials at low pressures, low speeds and in duenvironments Prevents tribocorrosion Dries at room temperature No-soiling sliding and parting film
OKS 575	PTFE Water Bonded Coating		For sliding surfaces made of different materials a low pressures, low speeds and in dusty environments Avoids squeaking at differently hard materials Dries at room temperature Verifiable with UV indicator Can be diluted with water



			Dry lubricants
Properties / Approvals	Main Components	Technical Data	Packaging
	grey-black MoS ₂	Operating temperature: -185 °C \rightarrow +450 °C (up to +1,100 °C in vacuum, up to +1,300 °C in inert gas) Press-fit: μ = 0.04, no chatter Particle size: 16.0 - 30.0 μ m, max. 190 μ m	250 g can 1 kg can 5 kg hobbock 25 kg hobbock
	grey-black MoS ₂	Operating temperature: -185 °C → +450 °C (up to +1,100 °C in vacuum, up to +1,300 °C in inert gas) Particle size: 2.5 - 5.0 μm, max. 15 μm	1 kg can 5 kg hobbock 25 kg hobbock 400 ml spray*
	grey-black MoS ₂ graphite	Operating temperature: -180 °C \rightarrow +450 °C Press-fit: μ = 0.07, no stick-slip	500 g can 5 kg hobbock 25 kg hobbock 400 ml spray*
	black graphite MoS ₂	Operating temperature: -180 °C → +450 °C Density (20 °C): 1.05 g/ml	400 ml spray
	black graphite MoS ₂	Operating temperature: -35 °C \rightarrow +450 °C Press-fit: μ = 0.10, no chatter Thread friction (M10/8,8): μ total = 0.05	1 kg can 5 kg canister 25 kg canister
OKS 536: NSF H2 Reg. No. 130416	black graphite	Operating temperature: -35 °C \rightarrow +600 °C Press-fit: μ = 0.12, no chatter	5 kg canister 25 kg canister
	whitish PTFE UV indicator	Operating temperature: -180 °C \rightarrow +260 °C Press-fit: μ = 0.07 Thread friction (M10/8,8): μ total = 0.10	500 ml can 5 l hobbock 25 l hobbock 400 ml spray*
	whitish PTFE UV indicator	Operating temp.: -180 °C → +150 °C/+250 °C	5 kg canister

DRY LUBRICANTS – THE ALTERNATIVE FOR SPECIAL APPLICATION CASES



Dry luk	ricants		
Product	Designation	Fields of Application	Purpose
OKS 589	MoS₂ PTFE Bonded Coating, thermosetting		Dry lubrication of sliding surfaces under heavy loads and low speeds Prevents friction and wear No adhesion of dust and dirt Use in a broad temperature range
OKS 1300 OKS 1301*	Sliding Film, colourless		Thread coating Sliding film for plastic, wood and metal Dry sliding film fast to handling Verifiable with UV indicator Prevents seizing For all screw materials Broad range of uses, in particular for precoating small and mass-produced parts
OKS 1710	Sliding Film for Screws, water-based concentrate		Thread coating, also for galvanic surfaces and VA screws, for controlled assembly Dry sliding film fast to handling Verifiable with UV indicator Can be diluted with water in a ratio of up to 1:5 Economic precoating
OKS 1750	Sliding Film for Wood Screws, water based concentrate		Coating of threads with galvanised surfaces Dry sliding film fast to handling Verifiable with UV indicator Can be diluted with water in a ratio of up to 1:5 In particular for chipboard screws
OKS 1765	Sliding Film for thread- forming Screws, water-based concentrate		Coating of thread-cutting screws made of high-alloy steels, galvanised and austenitic steels Dry sliding film fast to handling Prevents cold welding Can be diluted with water in a ratio of up to 1:5



Dry lubricants

5 I canister

25 I canister

Properties / Approvals	Main Components	Technical Data	Packaging
	matt black graphite PTFE MoS ₂	Operating temperature: -70 °C \rightarrow +250 °C Press-fit: μ = 0.07, no chatter Thread friction (M10/8,8): μ total = 0.08	5 kg hobbock 25 kg hobbock
pro plastic	colourless silicone wax UV indicator	Operating temperature: -60 °C \rightarrow +100 °C Thread friction: μ total = 0.08 - 0.10	5 I canister 25 I canister 200 I drum 400 ml spray*
	milky-white synthetic wax UV indicator	Operating temperature: up to +60 °C Thread friction (M10/8.8): μ total = 0.08 - 0.14 (depending on concentration and surface)	5 I canister 25 I canister 200 I drum
	yellowish synthetic wax	Operating temperature: up to +70 °C Thread friction (M10/8.8): µ total = 0.08 - 0.14	25 I canister

(depending on concentration and surface)

Operating temperature: up to +70 $^{\circ}\text{C}$

Thread friction (M10/8.8): μ total = 0.06 - 0.15

(depending on concentration and surface)

UV indicator

milky-white

synthetic wax

corrosion protection

CORROSION PROTECTION FOR RELIABLE PRESERVATION DURING STORAGE AND SHIPPING



Product	Designation	Fields of Application	Purpose
DKS 2100 DKS 2101*	Protective Film for Metals		Temporary wax-based corrosion protection film fo 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 2200	Water-based corrosion protection, VOC-free		Temporary corrosion protection for all bare metal surfaces under environmental influences such as humidity, moisture, salty atmosphere or industrial atmospheres Environmentally friendly VOC-free product based on water Can be removed easily with warm water and water based cleaners, such as OKS 2650 For use at storage and transportation of metal semi-finished products, spare parts, forms and machines
OKS 2300 OKS 2301*	Mould Protector, Fluid		Temporary corrosion protection film for bare meta surfaces Green colouration for checking Suitable for all climatic zones Displaces water Easy to remove Good compatibility with lubricants For use at storage and dispatch of machine parts
DKS 2511	Zinc Coating, spray		Cathodic corrosion protection based on highly purinc powder for ferrous metals For touching up galvanised surfaces Also suitable as adhesive primer for coating systems Fast-drying For use in steel construction work in air condition technology
OKS 2521	Gloss Zinc, spray		Decorative corrosion protection based on zinc an aluminium powder for ferrous metals For touching up hot-galvanised surfaces Can be welded through Abrasion resistant Can be painted over Fast-drying
DKS 2531	Alu-Metallic, Spray		Decorative corrosion protection based on aluminipowder for metals and other solid materials For touching up hot-galvanised surfaces Fast-drying Abrasion resistant Protects vehicle exhaust systems
OKS 2541	Stainless Steel Protection, Spray		 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



		Corrosi	on protection
Properties / Approvals	Main Components	Technical Data	Packaging
NSF CONSTRUCTION	light-coloured synthetic wax corrosion protection	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 I canister 25 I canister 200 I drum 400 ml spray*
OKS 2100: NSF H2 Reg. No. 142256			
	light-coloured synthetic wax corrosion protection	Operating temperature: -40 °C \rightarrow +70 °C Salt spray test: > 1.000 h with > 30 µm layer thickness Layer thickness: > 30 µm	1 l bottle 5 l canister 25 l canister
	greenish synthetic wax corrosion protection	Operating temperature: -40 °C \rightarrow +70 °C Salt spray test: > 1,000 h with 50 µm layer thickness Layer thickness: approx. 10 µm for one-time application	5 I canister 25 I canister 200 I drum 400 ml spray*
+	zinc grey zinc (98.5% pure)	Operating temperature: up to +400 °C Salt spray test: 500 h with 70 μm layer thickness Layer thickness: approx. 20 μm for one-time spraying	400 ml spray
+	aluminium-coloured purest aluminium powder purest zinc powder	Operating temperature: up to +250 °C Salt spray test: 240 h with 80 - 100 µm layer thickness Layer thickness: approx. 20 µm for one-time spraying	400 ml spray
+	aluminium-coloured	Operating temperature: -20 °C → +250 °C Salt spray test: > 600 h with 50 μm layer thickness	400 ml spray
	bright metallic stainless-steel pigments	Operating temperature: up to +100 °C Layer thickness: approx. 20 μm for one-time spraying	400 ml spray

MAINTENANCE PRODUCTS FOR ONGOING SERVICE



Furthe	r maintenance _l	products	
Product	Designation	Fields of Application	Purpose
OKS 611	Rust Remover with MoS ₂ , Spray		For destruction-free dismantling of seized or rusted-in machine elements Excellent creep properties Displaces moisture Good sliding properties through MoS2 Universal rust dissolver for industry, workshop and maintenance applications
OKS 621	Rust remover		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 maintenance applications
OKS 1360 OKS 1361*	Silicone Release Agent		Parting agent and lubricant for use in processing plastics Chemically neutral Solvent-free Displaces water Fitting aid for rubber profiles Lubrication of cutting edges Care and impregnation of plastic surfaces and textiles (OKS 1361)
OKS 1510 OKS 1511*	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 2711	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
OKS 2731	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 use on pneumatic, oxygen and gas systems as well as refrigerating machines

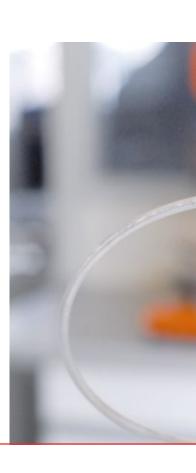


		Further maintena	nce products
Properties / Approvals	Main Components	Technical Data	Packaging
	green-black MoS ₂ mineral oil	Operating temperature: -30 °C → +60 °C/150 °C (after evaporation of the solvent) Density (20 °C): 0.69 g/ml Viscosity (40 °C): > 3 mm²/s	400 ml spray
**	light-coloured solvent mineral oil	Operating temperature: -10 °C → +40 °C	400 ml spray
OKS 1361: NSF H1 Reg. No. 129481	colourless polydimethylsiloxane	Operating temperature: -60 °C → +200 °C	1 I bottle 5 I canister 25 I canister 400 ml spray*
pro plastic	vegetable base oil	Density: (20 °C): 0.725 g/ml	5 I canister 25 I canister 400 ml spray*
	whitish-transparent natural greasy oil water	Density: (20 °C): 0.98 g/ml	5 I canister 25 I canister 400 ml spray*
	colourless solvent mixture		400 ml spray
	colourless solvent mixture		400 ml spray
OKS 2801: DVGW approval RegNr. NG-5170AO0659	transparent corrosion protection active ingredients	Operating temperature: up to +50 °C	5 I canister 25 I canister 400 ml spray*

MAINTENANCE PRODUCTS FOR ONGOING SERVICE



Further maintenance products			
Product	Designation	Fields of Application	Purpose
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 use on pneumatic, oxygen and gas systems as well as refrigerating machines
OKS 2901	Belt Tuning, Spray		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





Further maintenance products

Properties / Approvals	Main Components	Technical Data	Packaging
OKS 2811: DVGW approval RegNr. DG-5170CN0340	colourless corrosion protection active ingredients	Operating temperature: -15 °C → up to +50 °C	400 ml spray
	yellowish adhesive oil	Operating temperature: up to +80 °C	400 ml spray



CLEANERS FOR THOROUGH REMOVAL OF SOILING AND LUBRICANT RESIDUES



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 Cleaner for lubrication and glueing points
OKS 2621	Contact Cleaner, Spray		To remove soiling that can cause creepage current No running thanks to fast evaporation For example, for cleaning distribution boards, switches, relays, potentiometers, plug-in connections, sliding and screw contacts
OKS 2631	Multi-Foam Cleaner, Spray	1	 Removes firmly adhering organic soiling such as nicotine, fat and silicone films Cleans metals, plastics, glass and rubber in the gastronomy, office and vehicle fields gently and without leaving stripes Ideally suitable for vertical surfaces
OKS 2650	BIOlogic Industrial Cleaner, water-based concentrate		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 No classification marks according to (EG) No. 1272/2008
OKS 2660 OKS 2661*	Fast Cleaner		For machine parts and surfaces with oily or greas soiling Evaporates quickly and residue-free High cleaning power Ideal for preparation of bonded connections and cleaning of lubricating points Brake cleaner
OKS 2670 OKS 2671*	Intensive Cleaner for the Food Processing Industry		For removing aged and gummy oil and grease residues For dissolving silicone and adhesive residues Evaporates quickly and residue-free High cleaning action Good compatibility to common plastics For use in the food processing, livestock feed and pharmaceutical industries
OKS 2681	Adhesive and Paint Remover, Spray		For the removal of stubborn impurities, such as residues of sealants, paints and adhesives, bitum and tar splashes Can be used on metal, stainless steel, glass, woo and ceramics Can be washed off well with water after use Low effect on climate For use in industry, workshops and trade



			Cleaners
Properties / Approvals	Main Components	Technical Data	Packaging
om Antanya.v	colourless	Density: (20 °C): 0.75 g/ml Viscosity (40 °C): < 76 mm²/s	5 I canister 25 I canister 200 I drum 500 ml spray*
	colourless aliphatic hydrocarbons	Density: (20 °C): 0.66 g/ml	400 ml spray
stress crack test DIN EN ISO 22088-3 passed	slightly bluish additives anionic surfactants	Density: (20 °C): 0.92 g/ml	400 ml spray
biodegradability: OECD 301 B: 1992-07 86 % OKS 2650: NSF A1 Reg. No. 129003	red silicates non-ionic surfactants	Density: (20 °C): 1.04 g/ml pH value: 10,7 (concentrate)	500 ml Pump sprayer 1 l bottle 5 l canister 25 l canister 200 l drum
manage Park	colourless	Density: (20 °C): 0.725 g/ml	25 I canister 56 I drum 600 ml spray*
OKS 2670: NSF K1, K3 Reg Nr. 149997 OKS 2671: NSF K1, K3 Reg. No. 149998	colourless	Density: (20 °C): 0.78 g/ml	5 I canister 25 I canister 400 ml spray*
	colourless	Density: (20 °C): 0.85 g/ml	400 ml spray

LUBRICATING DEVICES FOR PRACTICAL USE

Solutions for continuous use in industry

Lever grease gun

The practical grease gun for reliable, economical application of greases. 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 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 400 ml or bigger. Do not use together with Airspray can).





Adapter set for Reiner lever grease gun

The adapter set for the Reiner lever grease gun system for rapid and simple conversion to 400 ml DIN cartridges. Thanks to its simple mounting, all OKS product cartridges can be used with the Reiner lever grease gun without much additional effort or high additional costs.

Available as a set with 10 adapters each with threads and cartridge covers, a reducing ring and mounting instructions.



OKS AIRSPRAY-SYSTEM AND OKS CHRONOLUBE-SYSTEM

OKS Airspray-System

The economic and ecological alternative to the spray can. The pressure spray system consists of the Airspray can and a unit for filling the can with OKS products such as oils and cleaning agents and compressed air. The air serves as a harmless propellant gas.

Avoiding waste - reducing costs

The OKS Airspray-System prevents waste and reduces costs. Disposal cost that would arise if spray cans were used, are reduced. A small investment in environmental protection that pays off rapidly.

Robust and safe

The indestructible Airspray can was developed specially for rough usage in industrial operation and in workshops. In order to ensure that the specified hazardous substances marking and a clear assignment of the filled can to the product are fulfilled, corresponding product labels are provided for download at www.oks-germany.com.





The OKS Airspray-System on Youtube.

OKS ChronoLube-System

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 (in monthly steps) in accordance with your requirements.

Highlights

- □ Operating temperature -10°C to +60°C
- □ Continuous fill level monitoring with transparent housing
- ☐ Dispensing time can be set in monthly steps
- ☐ Dispensing duration individually adjustable when changing cartridge
- □ Display of operating state with LCD display (e.g. operation, empty, fault)
- ☐ Reusable drive
- □ Replaceable battery set



APPLICATION CONDITIONS APPLICATION CONDITIONS

OKS experts stand for innovative ideas and product concepts

Movement without friction is a dream of mankind. But friction still remains a fact of life. To ensure "frictionless" running of your machines, OKS can provide a lubricant solution for almost any application. Whether the lubrication of roller bearings, chains or slideways, under extreme conditions of use or under the influence of aggressive media – with lubricants from OKS you solve your tribological problems safely and reliably.

Extreme conditions of use

Ever more productive machines, combined with extended operating lives push materials and machine elements to their stress limits. OKS offers lubricants that unfold their full performance even under these conditions. Various OKS speciality lubricants resist extreme temperatures, high temperature fluctuations or high pressures.







Plastic lubrication

New design developments mean that friction pairs are increasingly being used that place particular requirements of the compatibility of the lubricants. Special alloys or ceramic elements are used. Material combinations of plastic/metal and plastic/plastic are increasingly also being used. OKS provides lubricants that are compatible with many materials.



Lubrication under the influence of aggressive media

Whether in permanent use with contact to acids or lyes at columns, boilers or pipings in process engineering industries, at corrosive influences, at outdoor weathering or under the influence of salt water, your plants remain completely operational also under these conditions thanks to OKS speciality lubricants.







Speciality lubricants for food processing technology

OKS develops a wide range of speciality lubricants especially for the high hygiene requirements of food processing technology.





WHAT YOU CAN EXPECT FROM OKS — PERFOR-MANCE THAT MOVES

Maximum product quality, active occupational health and safety and consistent environmental protection

These three factors form the major factors for the sustainable success of our company and our industrial and commercial customers worldwide.

OKS is oriented towards the development, production and sales of lubricants, maintenance and corrosion protection products of the highest possible quality. Our focus lies on customers who are satisfied with our products and our performance.

All employees are committed to the high quality, environmental protection and work protection demands. Continues personnel development results in active participation in implementing the corresponding targets.

Our high quality and environmental standards are already ingrained in our product development. Environmental protection and the user's safety have the greatest priority for us. Not only through our environmentally conscious company management, but in particular through the development of state-of-the-art lubricants do we contribute to a marked reduction of the negative environmental impact caused by technical factors.

We utilise modern production processes in manufacturing our products. In safe and environmentally friendly production processes we keep the effect on man and environment as small as possible.

In cooperation with our local sales partners we place great emphasis on qualification and thus ensure excellent consulting services and competence in solving problems locally.

Our participation in the initiative "We all take care", an initiative of the Freudenberg Group for environmental and work protection and for the reduction of occupational accidents, is further proof that our goals are corporate practice.

The high OKS quality standard is proven by our certification by the TÜV SÜD Management Service GmbH in the fields of quality (ISO 9001:2015), environment (ISO 14001:2015) and work protection (ISO 45001:2018)







www.tuev-sued.de/ms-zert



ACTING SUSTAINABLY

TO SERVE CUSTOMERS AND ENVIRONMENT

Our responsibility – Sustainability is an important part of the OKS corporate culture

Our concept is based on the sustainability strategy of the Freudenberg Group. It defines sustainable action as part of the corporate culture with its values and principles and the relevant economic and social environment.

Responsibility

The basic and raw material for our products come from all over the world and we deliver our products world-wide. Therefore we don't restrict our responsibility to the immediate surroundings of our company location in Maisach. We adhere to our own code of conduct as well as a dedicated supplier selection system with clear specification for ethical and regulatory conformity. The adherence to the regulatory requirements that are relevant for our industry are obligatory for us – as are the ethical values.

Safety

Safety is a central concept for the design of our processes and during the development of our products. Safety always relates to the protection of humans, no matter whether they work for OKS or with OKS products. But safety also relates to possible environmental impacts that result from the production or application of our products.

Improvement

With regard to better sustainability we set ourselves clear goals. We measure those regularly to document progress – and where necessary – work even more intensely on improvements.

Value chain

We always consider our complete value chain to be able to improve processes that, for example, contribute to the conservation of resources or environmental sustainability. The same applies to the users of our products. Our goal is to support them in reaching their own sustainability goals e. g. through:

- Energy saving and emission reduction
- Resource efficiency and optimization of maintenance cycles
- Reduction of consumption and waste volumes

Footprint and handprint

Our goal is to minimize the possible negative effects of our actions, i.e. the direct effects of our business activities on the environment and society.

We define this as the "footprint".

We support our customers and the users of our products with regard to their own, sustainable action. We help them to produce more efficiently and reduce negative effects on the environment.

We call this the "handprint".

Download: OKS Sustainability Report



Sustainability at OKS

- Improve footprint through sustainable management of the value chain
- Develop handprint for the benefit of our customers
- Use resources efficiently through reduced resource consumption and the use of renewable raw materials
- Avoid critical raw materials for ensuring a healthy work environment
- Promote safety
 of the environment, the users and our employees
- Specify (measure) parameters to check footprint and handprint



NOTES



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.

CONSULTING AND SALES

Die Angaben in dieser Druckschrift entsprechen dem neuesten Stand der Technik, sowie umfangreichen Prüfungen und Erfahrungen. Bei der Vieifalt der Anwendungsmöglichkeiten und der technischen Gegebenheiten können sie lediglich Hinweise auf Anwendungen geben und sind nicht auf jeden Einzelfall voll übertragbar, daher können daraus keine Verbindlichkeiten, Haftungsund Gewährleistungsansprüche abgeleitet werden. Eine Haftung für die Eignung unserer Produkte für bestimmte Verwendungen sowie bestimmte Eigenschaften der Produkte übernehmen wir nur, wenn diese im Einzelfall schriftlich zugesagt worden sind. In jedem Fall berechtigter Gewährleistungsansprüche sind diese auf die Lieferung mangelfreier Ersatzware oder, wenn diese Nachbesserung scheitern sollte, auf die Rückerstattung des Kaufpreises beschränkt. Alle weitergehenden Ansprüche, insbesondere die Haftung für Folgeschäden, sind grundsätzlich ausgeschlossen. Vor Anwendung müssen eigene Versuche durchgeführt werden. Für Schreib-, Tipp-, Rechen- und Übersetzungsfehler wird keine Gewähr übernommen. Änderungen im Interesse des Fortschritts vorbehalten.

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