



LUBRITECH Special Application Lubricants



LUBRICANTS. TECHNOLOGY. PEOPLE.

FUCHS LUBRITECH – Special Application Lubricants

Within the FUCHS Group, we at FUCHS LUBRITECH are the experts for highly specialised applications. We develop, produce and distribute the world's leading branded products of our own. Our employees are committed to solving your challenges. We are there, with you and for you.

CASSIDA



LUBRITECH

Special Application Lubricants

Facts and figures

Company: FUCHS LUBRITECH GmbH, part of the FUCHS

Group, based in Kaiserslautern, Germany

LUBRITECH: the Special Application Lubricants Division of the

FUCHS Group

Product range: LUBRITECH GROUP offers a full range of more than 1,000 special products, including food grade lubricants, adhesive lubricants, lubricating fluids and greases, pastes, solid film lubricants, concrete release agents, aerosols and metal-forming lubricants

Certifications: ISO 9001:2015, ISO 21469, Halal, Kosher,

IATF 16949:2016

FUCHS has developed, produced, and sold lubricants and related specialties for more than 80 years – for virtually all applications and sectors. With over 100,000 customers and 50 companies worldwide, the FUCHS Group is the world's leading independent lubricant supplier.

Within the FUCHS Group, **FUCHS LUBRITECH** is the expert for Special Application Lubricants. A team of more than 500 specialists around the world work to meet your needs. However demanding the application, we offer a specialised solution. Service is a crucial and fundamental component of our offering. Our experts offer on-site technical consultation to assure performance, efficiency and process reliability.

FUCHS LUBRITECH special lubricants stand for the highest performance and sustainability, safety and reliability as well as efficiency and cost savings. They represent a promise: **technology that pays back**.







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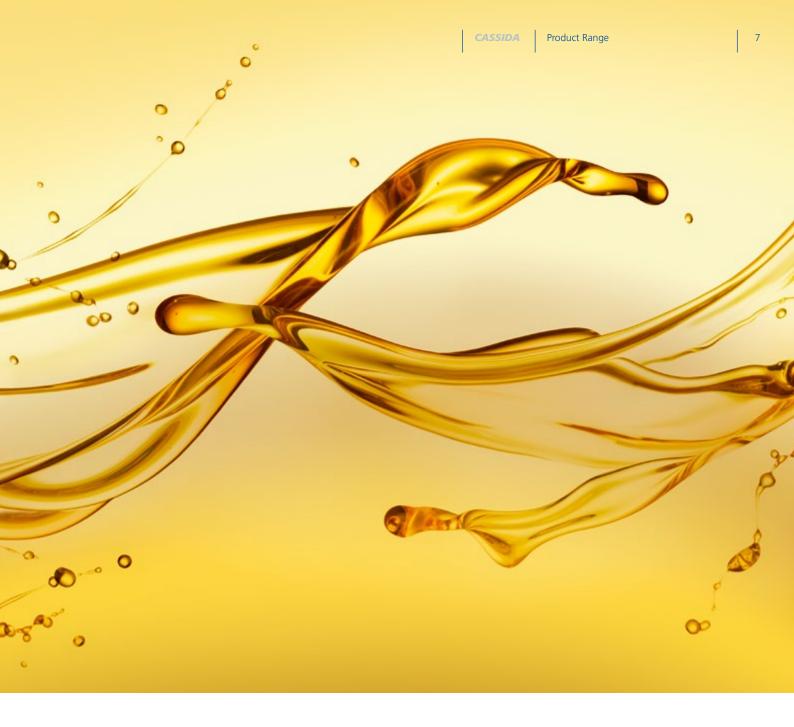
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Industries Served by CASSIDA Food Grade Lubricants







Beverage and brewing industry

The production of food, beverages and related products puts the strictest requirements on the lubricants used in the manufacturing process. Consumer protection is absolutely essential. Incidental oil contamination during the bottling and canning process must be avoided by breweries and beverage manufacturers, who brew, mix, can and bottle millions of gallons of beverages for global markets every year.

Meat and poultry industry

Millions of pounds of meat and poultry are processed every year. Just as in all other food industries, the safety of the production process is crucial. CASSIDA food grade lubricants support this safety. In addition, ensuring that the production process runs smoothly and is highly effective (meaning longer component lifetimes and extended maintenance intervals) is our number one priority.

Dairy industry

Customers from the dairy industry as well as the other food-related industries benefit from the excellent quality of the CASSIDA portfolio, which has been confirmed by numerous OEM approvals given by well-known manufacturers of production and manufacturing equipment. This assures that the highest demands of the industry are met.

Product Range







Bakery and confectionery industry

With the high temperatures required by the bakery and confectionery industry, high heat resistance and stability of the lubricant is crucial. FUCHS LUBRITECH's research into extreme applications ensures that CASSIDA food grade lubricants perform at the highest level to allow for safe and reliable production and manufacturing processes.

Animal feed industry

Only safe feed will allow safe food to be produced. CASSIDA food grade lubricants provide this safety to the producers of animal feed. The products comply with the vast variety of feed requirements for livestock and other animals – from dairy cows and poultry to pets and fish.

Edible oil processing industry

In modern cuisine and with changing eating habits, edible oil, such as olive oil, sunflower oil and rapeseed oil, play an integral role in our diets. With CASSIDA food grade lubricants, FUCHS LUBRITECH offers a wide choice of lubricating fluids and greases for safe and efficient lubrication of the production processes.

Serving the Highest Safety Standards of the Food and Beverage Industry

Our product portfolio - at a glance

Lubricants for the production, processing and packaging of food, beverages, medications and cosmetic products must fulfil stringent requirements. Consumer protection is crucial, which is why FUCHS LUBRITECH practises the highest safety standards in all aspects of development, production, sales and after-sales service.

FUCHS LUBRITECH customers benefit from the excellent quality of the CASSIDA product line, which has OEM approvals from well-known manufacturers of production and manufacturing equipment.

FUCHS LUBRITECH food grade lubricants are formulated with the most advanced rust and oxidation, anti-wear and extreme-pressure additives available, all of which provide the maximum level of protection for your expensive food processing equipment. From hydraulic systems and transmissions to bearings and compressors: close cooperation already during the development phase pays off for our customers.

Safety, our number one priority

All lubricants for the production, processing and packaging of food, beverages, medications and cosmetic products must fulfil stringent requirements. Consumer protection is crucial, which is why food safety is very important in all aspects of development, production, sales and after-sales service. This is the reason why all of our food grade lubricants are registered by NSF International in accordance with the respective food-related categories.

Our manufacturing plant in Kaisers-lautern as well as the food grade lubricants produced there are certified in accordance with the international standard ISO 21469. This standard determines the hygienic requirements for the composition, manufacturing and use of lubricants that may have incidental contact with food products – assuring that our products fulfil the highest possible safety standard.

Additionally, our CASSIDA products fulfil the strict requirements of both Jewish and Muslim laws and regulations. The respective Kosher and Halal certificates guarantee the highest possible level of product and food safety.

Our most important product: individual consulting and service

We set standards not only with our high-performance products, but also with our exceptional service! This includes providing advice on how to optimise the use of food grade lubricants taking into account stringent QA management procedures in order to avoid food contamination (in accordance with HACCP = Hazard Analysis and Critical Control Points), examination of used lubricants, development of lubrication and maintenance schedules, support in changing lubricants, active support for practical testing, careful documentation of all measures and much more.

Finding comprehensive, sustainable and safe solutions for all tribological issues arising from our customers' requirements and their applications is our declared goal. Customer seminars and training sessions held globally complete our service programme.

With its competent technical advice and widespread sales network, our global Food Division team supports you in your production and processing activities to ensure that you will always achieve optimal results.

NSF registered ISO certified



Kosher certified



Halal certified



Company Member



In Partnership with



Guide to Symbols



Roller bearings



Can seamers and sterilisers



Extreme pressure



Compressors



Slideways



Anti-corrosive



Plain bearings



Chains



Industrial coolants



Direct food contact



Mounting/assembling/ disassembling aid



NSF registered



Flushing



Conveyors



Heat transfer



Sugar dissolving



Maintenance aid



High temperature



Gears – open



Hydraulics



Vacuum pumps



Worm gears



Low temperature



Gears – enclosed



and fitting



Maintenance spray



Linkages, pins



CASSIDA FLUIDS

CASSIDA lubricating fluids based on fully synthetic base oils are developed to meet related industry specifications and to fulfil the stringent guidelines governing food-compatible lubricants. The high-performance lubricating fluids of the CASSIDA range enable the efficient operation of demanding manufacturing processes, a higher degree of utilisation of machines and a reduction in maintenance costs. They are used in various branches of the food and beverage industry.

FUCHS LUBRITECH's extensive range of food grade lubricating fluids offers the user a wide choice of CASSIDA-branded products for lifetime and total loss lubrication. In addition to mineral-oil-based fluids, a very diverse selection of synthetic lubricating fluids are available for a wide range of applications in the food and beverage industry.

These high-performance lubricating fluids enable the efficient operation of demanding production and manufacturing processes, a higher degree of utilisation of machines and a reduction in maintenance.

FUCHS LUBRITECH researches constantly to increase performance and offer optimum lubricating fluids for maximum safety in food grade applications.



CASSIDA Fluids (fully synthetic)

| Chain Oils | |
|--|------|
| CASSIDA CHAIN OIL 150 320 SPRAY 460 1500 1500 SPRAY 5000 SPRAY | . 14 |
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| CASSIDA PTFE DRY SPRAY | |
| CASSIDA FLUID CP CASSIDA FLUID CP SPRAY | |
| CASSIDA COOLANT | . 20 |

CHAIN OILS

CASSIDA CHAIN OIL | 150 | 320 Spray | 460 | 1500 | 1500 Spray | 5000 Spray

| II SF OCCOOL INSE | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|--|------------------------------|-------------------------------|---|----------------|
| CASSIDA CHAIN OIL 150 | 150 | 19 | -30 to +140 (upper peak: +150) | |
| CASSIDA CHAIN OIL 320 SPRAY | 320* | 34* | -40 to +140 (upper peak: +150) | |
| Cassida Chain Oil 460 | 460 | 43 | -30 to +140 (upper peak: +150) | |
| Cassida Chain Oil 1500 | 1500 | 135 | -30 to +140 (upper peak: +150) | |
| Cassida Chain Oil 1500 Spray | 1500* | 135* | -10 to +140 (upper peak: +150) | |
| Cassida Chain Oil 5000 Spray | 5000* | 350* | -10 to +100 (upper peak: +150) | |
| Fully synthetic, very high-performance chain oils. High- ly resistant to fling-off or wash-off. Excellent protec- | | | e and transport chains in l lubrication systems or spr | |

tion against wear and corrosion.

*after evaporation of solvent

CASSIDA CHAIN OIL LT | LT Spray

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|--|-------------------------------|----------------------------------|----------------|
| Cassida Chain oil lt | 32 | 6.5 | -50 to +140 (lower peak: -60) | |
| Cassida Chain oil lt spray | 32* | 6.5* | -50 to +120 (lower peak: -60) | |
| Fully synthetic, high-performance anti-wear chain oil suitable for a wide range of temperatures, including sub-zero conditions. | Main application: Transport mechanisms inside food freezers such as spiral freezers. Lubrication of metal-metal and metal-ceramic contact points in open machinery, such as slideways and chains. Plain and anti-friction bearings. | | | |

*after evaporation of solvent

CASSIDA CHAIN OIL SP

| SSF COCCO NSF | Viscosity at 40°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications |
|--|--|------------------------------|-----------------------------------|----------------|
| CASSIDA CHAIN OIL SP | 85 | 460* | -30 to +140 (upper peak: +150) | |
| Fully synthetic, high-performance, anti-wear chain oil with excellent creeping and penetrating features. | Main application: Drive and transport chains in the food industry, slideways, levers, joints and bolts, ropes, spindles and guide pulleys. Also intended for use in equipment for manufacturing food packaging. | | | |

*after evaporation of solvent

CASSIDA CHAIN OIL HTE

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | |
|--|--|-------------------------------|------------------------|----------------|--|
| CASSIDA CHAIN OIL HTE | 220 | 20 | -25 to +240 | | |
| Fully synthetic, ester-based, high-temperature chain lubricant suitable for temperatures of up to 240°C. | Main application: Drive and transport chains in the food industry. Also intended for use in equipment for manufacturing food packaging. | | | | |

CASSIDA Product Range

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CHAIN OILS

CASSIDA CHAIN OIL XTE

| (NSF) | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range oven [°C] | Specifications |
|--|--|-------------------------------|-----------------------------|----------------|
| CASSIDA CHAIN OIL XTE | 194 | 18 | -20 to +300 | |
| Fully synthetic high-temperature chain lubricant with exceptional thermal stability. | Main application: Drive and transport chains in the food industry (e.g. bakeries). Also intended for use in equipment for manufacturing food packaging. | | | |

CASSIDA CHAIN OIL HTX

| MSF NSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | |
|---|---|-------------------------------|---------------------------|----------------|--|
| CASSIDA CHAIN OIL HTX | 330 | 40 | -15 to >+300 | | |
| Fully synthetic, extreme-temperature chain lubricant suitable for temperatures up to more than 300°C. | Main application: Drive and transport chains in the food industry (e.g. bakeries). Also intended for use in equipment for manufacturing food packaging. | | | | |

COMPRESSOR FLUIDS

CASSIDA FLUID CR 32 | 46 | 68 | 100 | 150

| Ø ₩ II NSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|--|------------------------------|-------------------------------|-----------------------------------|-----------------------------|
| CASSIDA FLUID CR 32 | 32 | 6.1 | -30 to +100 (upper peak: +120) | DIN 51506 VBL, VCL, VDL |
| CASSIDA FLUID CR 46 | 46 | 8.0 | -30 to +100 (upper peak: +120) | DIN 51506 VBL, VCL, VDL |
| CASSIDA FLUID CR 68 | 68 | 11 | -30 to +100 (upper peak: +120) | DIN 51506 VBL, VCL, VDL |
| CASSIDA FLUID CR 100 | 100 | 14 | -30 to +100 (upper peak: +120) | DIN 51506 VBL, VCL, VDL |
| CASSIDA FLUID CR 150 | 150 | 19 | -30 to +100 (upper peak: +120) | DIN 51506 VBL, VCL, VDL |
| Fully synthetic, very high-perfomance, long-life compressor oils. Meet DIN 51506 VBL, VCL, VDL and ISO 6743-3A DAH, DAG, DAJ specifications. | Main application plants. | : Oil-flooded rotary | vane and screw air com | pressors in food processing |

CASSIDA FLUID RF 46 | 68

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|------------------------------------|-------------------------------|---|--------------------------|
| Cassida fluid RF 46 | 46 | 7.8 | -40 to +100 (upper peak: +140) | DIN 51501-1 |
| CASSIDA FLUID RF 68 | 68 | 9.7 | -40 to +100 (upper peak: +140) | DIN 51501-1 |
| Fully synthetic lubricants for refrigeration compressors used in the food industry. | and reciprocating performance unde | types. Designed for a | use in open- and semi-ope pplications with ammonia pration temperatures. Can obutane (R600a) | (R717), offering excelle |

DIRECT CONTACT FLUIDS - MULTIPLE APPLICATIONS

CASSIDA FLUID DC 20 | 32

and promote long service life.

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|--|--|-------------------------------|------------------------|----------------|
| CASSIDA FLUID DC 20 | 23 | 4.8 | -40 to +100 | |
| CASSIDA FLUID DC 32 | 32 | 6 | -40 to +100 | |
| Fully synthetic, multipurpose, low-volatility fluids suitable for both direct and incidental food contact applications. Can handle a wide range of application temperatures and have excellent thermal and oxidative stability to minimise cracking | Main application: In absorber oil columns designed to remove traces of hexane from steam/air/hexane mixtures. As forming oil for the manufacture of both two- and three-piece cans for the food and beverage industry. In closed circuit and pressureless heat transfer systems with a bulk oil temperature of approximately -30°C to 280°C where direct | | | |

food contact may occur.

CASSIDA FLUID DCE 15 | CASSIDA FLUID DCE 15 Spray

| → INSF | Viscosity at 20°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications |
|--|---|------------------------------|-----------------------------------|----------------|
| CASSIDA FLUID DCE 15 | 31 | 14.8 | -10 to +110 (upper peak: +120) | |
| CASSIDA FLUID DCE 15 SPRAY | 31* | 14.8* | -10 to +110 (upper peak: +120) | |
| Synthetic multifunctional mineral oil hydrocarbon free direct contact fluid for food processing applications in the food manufacturing industry. | Main application: Release agent used on grills, loaf pans, cutters, boning benches, chopping blocks or other hard surfaces to help prevent food from adhering during processing. Dough Divider lubrication and forming oil for the manufacture of both two and three piece cans for food and beverages (stamping, deep drawing and bending). Stamping and deep drawing of aluminium foils for food-packaging. Lubrication of lightly loaded chains. | | | |

*without propellant

CASSIDA Product Range

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GEAR FLUIDS

CASSIDA FLUID GL 150 | 220 | 320 | 460 | 680

| (S) (NSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|--|------------------------------|-------------------------------|--|---------------------------------------|
| CASSIDA FLUID GL 150 | 150 | 19 | -45 to +140 (upper peak: +150) | DIN 51517 CLP / DIN 51506 VBL, VCL |
| CASSIDA FLUID GL 220 | 220 | 25 | -40 to +140 (upper peak: +150) | DIN 51517 CLP / DIN 51506 VBL |
| CASSIDA FLUID GL 320 | 320 | 33 | -35 to +140 (upper peak: +150) | DIN 51517 CLP |
| CASSIDA FLUID GL 460 | 460 | 44 | -35 to +140 (upper peak: +150) | DIN 51517 CLP |
| CASSIDA FLUID GL 680 | 680 | 59 | -30 to +140 (upper peak: +150) | DIN 51517 CLP |
| Fully synthetic, very high-perfomance, long-life, anti-wear gear oils. Meet DIN 51517 CLP and ISO 6743/6 specifications. | | | rboxes on food handlin eneral machine lubricati | |

CASSIDA FLUID GLE 150 | 220

| CO CO USF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|-----------------------|------------------------------|-------------------------------|-----------------------------------|----------------|
| CASSIDA FLUID GLE 150 | 150 | 19 | -40 to +140 (upper peak: +150) | DIN 51517 CLP |
| CASSIDA FLUID GLE 220 | 220 | 25 | -40 to +140 (upper peak: +150) | DIN 51517 CLP |

Fully synthetic, high-performance, anti-wear gear fluids for use in the food canning industry. Provides excellent lubrication, even when operating in locations where the product may be subject to contamination with water, juice and food. CASSIDA FLUID GLE holds these contaminants in suspension, thus protecting metal surfaces from wear and corrosion. Approved by Angelus Sanitary Can Seaming Company for can seamer lubrication.

Main application: Lubrication of rotary can seaming machines, including both enclosed and total loss systems, and for circulating and bearing oil systems where contamination with water or food juices can occur.

CASSIDA FLUID WG 220 | 320 | 460 | 680 | 1000

| (See) } | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|-----------------------|------------------------------|-------------------------------|---------------------------|----------------|
| CASSIDA FLUID WG 220 | 220 | 42 | -35 to +160 | DIN 51517 CLP |
| CASSIDA FLUID WG 320 | 320 | 61 | -35 to +160 | DIN 51517 CLP |
| CASSIDA FLUID WG 460 | 460 | 83 | -30 to +160 | DIN 51517 CLP |
| CASSIDA FLUID WG 680 | 680 | 122 | -25 to +160 | DIN 51517 CLP |
| CASSIDA FLUID WG 1000 | 1000 | 163 | -25 to +160 | DIN 51517 CLP |

Fully synthetic, high-performance gear lubricants for worm gearboxes. High resistance to micro-pitting. Provides exceptional thermal stability and corrosion protection. Exceptional low-friction characteristics providing efficient power transmission. Meet DIN 51717 CLP and ISO 6743/6 specifications.

Main application: For the lubrication of worm gearboxes in food processing plants. Ideal for all worm gear applications. Suitable for use in situations where equipment gets routinely cleaned before and after use and where water might enter the lubricant.

HYDRAULIC OILS

CASSIDA FLUID HF 15 | 32 | 46 | 68 | 100

| =()= () NSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|----------------------|------------------------------|-------------------------------|-----------------------------------|--------------------------------------|
| CASSIDA FLUID HF 15 | 15 | 3.6 | -65 to +100 (upper peak: +120) | DIN 51524 HLP |
| CASSIDA FLUID HF 32 | 32 | 6 | -60 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP |
| Cassida fluid HF 46 | 46 | 8 | -59 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP |
| Cassida fluid HF 68 | 68 | 11 | -52 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP DIN 51517 CLP |
| Cassida fluid HF 100 | 100 | 14 | -45 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP DIN 51517 CLP |

Fully synthetic, high-performance, long-life, anti-wear hydraulic oils. Meet ISO 6743/4 HM, DIN 51524 HLP, HVLP and DIN 51517 CLP (ISO 68 and ISO 100) specifications.

Main application: Hydraulic systems, hydrostatic gears and control systems, plain and anti-friction bearings on food handling and processing equipment.

CASSIDA FLUID HFS 15 | 32 | 46 | 68 | 100

| Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---------------------------|-------------------------------|---|---|
| 15 | 4 | -62 to +100 (upper peak: +120) | DIN 51524 HLP |
| 32 | 6 | -60 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP DIN 51517 CLP |
| 46 | 8 | -60 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP DIN 51517 CLP |
| 68 | 11 | -50 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP DIN 51517 CLP |
| 100 | 15 | -45 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP DIN 51517 CLP |
| | 40°C [mm²/s] 15 32 46 68 | 40°C [mm²/s] 100°C [mm²/s] 15 4 32 6 46 8 68 11 | 40°C [mm²/s] 100°C [mm²/s] range [°C] 15 4 -62 to +100 (upper peak: +120) 32 6 -60 to +140 (upper peak: +150) 46 8 -60 to +140 (upper peak: +150) 68 11 -50 to +140 (upper peak: +150) 45 to +140 -45 to +140 |

Fully synthetic, high-performance, long-life, anti-wear hydraulic oils with boosted solvency and lubricity. Resist the formation of harmful oxidation products, even at elevated temperatures. Meet ISO 6743/4 HV and DIN 51524 HLP, HVLP and DIN 51517 CLP (HFS 68) specifications.

Main application: Hydraulic systems, hydrostatic gears and control systems, plain and anti-friction bearings on food handling and processing equipment. Can be used on demanding injection moulding machinery.

VACUUM PUMP FLUIDS

CASSIDA FLUID VP 68 | 100

| (NSF) | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|-------------------------------|-----------------------------------|-------------------------|
| CASSIDA FLUID VP 68 | 68 | 10.5 | -45 to +120 (upper peak: +140) | DIN 51506 VBL, VCL, VDL |
| CASSIDA FLUID VP 100 | 100 | 14 | -40 to +120 (upper peak: +140) | DIN 51506 VBL, VCL, VDL |
| Fully synthetic, high-performance vacuum pump oils. | Main application: Vacuum pumps producing a medium vacuum, used in the food and beverage processing and packing industry. | | | |

CASSIDA Product Range

MAINTENANCE FLUIDS and SPECIALTIES

CASSIDA FLUID FL 5 | FL 5 Spray

| III S | Viscosity at 20°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---------------------------|------------------------------|-------------------------|-------------------------------|
| CASSIDA FLUID FL 5 | 3.8 | 1.1 | n.a. | |
| CASSIDA FLUID FL 5 SPRAY | 3.8* | 1.1* | -60 to +110 | |
| Fully synthetic penetrating fluid with excellent creeping and | | | or use in food grade ec | quipment. Can be used for the |

Fully synthetic penetrating fluid with excellent creeping and penetrating features. Capillary effect allows quick penetration between rusty and encrusted contact surfaces. Lubricates and protects against corrosion. Has a neutral odour and taste.

Main application: Penetrating fluid for use in food grade equipment. Can be used for the disassembling of screws, interlocking nuts and other components. Offers corrosion protection for metal components. Can be used for lubrication of various non-demanding applications where food grade lubricants are required.

*without propellant

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CASSIDA SILICONE FLUID | CASSIDA SILICONE FLUID Spray

| | Viscosity at 25°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications |
|--|------------------------------|------------------------------|--|---|
| CASSIDA SILICONE FLUID | 350 | 270 | -40 to +200 (upper peak: +220) | |
| CASSIDA SILICONE FLUID Spray | 1000* | 730* | -40 to +200 (upper peak: +220) | |
| Silicone-based, fully synthetic, multipurpose fluid. Thermal stability up to 250°C. Excellent adhesive properties minimise fling-off in use and wash-off by both cold and hot water. Readily displaces water. Formulated for use on metal-to-non-metal or non-metal-to-non-metal contact surfaces. | | | conveyors; slow rotating d in equipment in the fo | machinery; small, slow- od industry. |

*without propellant

CASSIDA PTFE DRY Spray

| | Viscosity at 20°C [mm²/s] | Temperature range [°C] | | |
|---|---|------------------------|--|--|
| CASSIDA PTFE DRY SPRAY | 0.8* | -50 to +270 | | |
| Synthetic PTFE multipurpose and maintenance lubricant, based on a unique blend of components. | Main application: For use on belts, cams, chains, cables, conveyors, sliding track: joints, pivots, lifts, pulleys, threaded parts, bolts, rollers, taps, valves and many oth moving parts. For lubrication and protection of seals and guides, operating in foor pharmaceutical and other clean environments where incidental food contact is possible. | | | |

*including solvent

MAINTENANCE FLUIDS and SPECIALTIES

CASSIDA FLUID CP | CASSIDA FLUID CP Spray

| NSF. | Viscosity at 20°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications |
|---|--------------------------------------|------------------------------|--|--|
| CASSIDA FLUID CP | 4.9* | 3.8* | n.a. | |
| CASSIDA FLUID CP SPRAY | 4.9** | 3.8** | -30 to +100 | |
| Easy-to-handle, fully synthetic corrosion protection fluid with excellent yield for use in machinery in the food and beverage processing and packaging industry. Provides a thin, highly efficient molecular film on | For metal parts ar housings, gear-wh | nd tools after galvanio | conditioning and clear shafts, measuring tool | g shipping and distribution. Ining processes. For gearbox Is, precision tools, etc. As a |

* including solvent
** without propellant, including solvent

CASSIDA COOLANT

components.

| ₩ INSF | Viscosity at 20°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications | | | | | |
|--|---------------------------|------------------------------|---------------------------|----------------|--|--|--|--|--|
| CASSIDA COOLANT | 47 | 17 | -45 to +120 | | | | | | |
| Propylene-glycol-based fluid containing anti-corrosion additives for use in closed systems to chill cool or heat | 7 3, 3, | | | | | | | | |

additives, for use in closed systems to chill, cool or heat food or beverages in food industry applications. Designed to be used in mixtures with potable water. Suitable for operation in the range of -45°C to 120°C.

Main application: Secondary cooling, or heating, in the food and beverage industry. For use in closed cooling systems, including those where there is potential for incidental food contact. Not to be used for applications where there is direct contact between food and the coolant.

ASSIDA Product Range

For your notes





CASSIDA GREASES

CASSIDA greases are fully based on synthetics and fulfil the same technical requirements as non-food grade lubricants – i.e. to reduce friction and wear or to protect against corrosion. For the food and beverage industry they support maximum food safety. With our range of CASSIDA greases, we cover all of the applications where there is potential for incidental food contact – as found in various branches of the food and beverage industry.

Included in the CASSIDA range of greases are direct contact lubricants which are both NSF H1 and also 3H registered for safety. This means the lubricants are acceptable for incidental contact with food as well as for use as release agents on hard surfaces which are in direct contact with meat and poultry.

Our CASSIDA GREASE EPS range of lubricants has been developed to provide high performance and wear protection for machinery operating at high pressures and loads. At slower speeds, high pressures and high loads, a heavy-duty grease is required which helps protect machinery. We provide CASSIDA greases that are specifically designed for heavy-loaded and shock-loaded applications.

Other product series include highly water-resistant greases, assembly pastes and low-temperature greases.



CASSIDA Greases

| Regular Load | |
|---|----|
| CASSIDA GREASE RLS 000 00 0 1 2 | 24 |
| Extreme Pressure | |
| CASSIDA GREASE EPS 00 1 2 | 24 |
| Heavy Duty | |
| CASSIDA GREASE HDS 00 2 | 24 |
| Specialties | |
| CASSIDA GREASE GTS 2 GTS SPRAY | 25 |
| CASSIDA GREASE GTM 2 | 25 |
| CASSIDA GREASE GTX 2 0 | 25 |
| CASSIDA GREASE HTS 2 | 25 |
| CASSIDA GREASE LTS 1 | 26 |
| CASSIDA GREASE P 1 | 26 |
| CASSIDA GREASE CLEAR 2 | 26 |
| CASSIDA GREASE MD 2 | 26 |
| CASSIDA GREASE FC 1 2 | 27 |
| CASSIDA PASTE AP | 27 |

REGULAR LOAD

CASSIDA GREASE RLS 000 | 00 | 0 | 1 | 2

| O O O I | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|------------------------|-----------|---------------------------------|----------------------------------|-----------------------------------|----------------|----------------|
| CASSIDA GREASE RLS 000 | AlCx | 100 | 13 | -50 to +100 (upper peak: +120) | <000 | |
| CASSIDA GREASE RLS 00 | AlCx | 100 | 13 | -45 to +100 (upper peak: +120) | 00 | |
| CASSIDA GREASE RLS 0 | AlCx | 150 | 18 | -40 to +100 (upper peak: +120) | 0 | |
| CASSIDA GREASE RLS 1 | AlCx | 150 | 18 | -40 to +120 (upper peak: +140) | 1 | |
| CASSIDA GREASE RLS 2 | AlCx | 150 | 18 | -35 to +120 (upper peak: +140) | 2 | |

High-performance, regular-load aluminium complex greases with synthetic base fluid.

Main application: For use on bearings, bushings and linkages on food manufacturing equipment. CASSIDA GREASE RLS 0 and 00 are particulary recommended for centralised lube systems or other similiar systems where an NLGI 2 grease may be difficult to dispense.

EXTREME PRESSURE

CASSIDA GREASE EPS 00 | 1 | 2

| © © EP NSF | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|---|----------------------------|---------------------------------|----------------------------------|---|------------------------------|----------------|
| CASSIDA GREASE EPS 00 | AlCx | 220 | 25 | -45 to +100 (upper peak: +120) | 00 | |
| CASSIDA GREASE EPS 1 | AlCx | 220 | 25 | -40 to +120 (upper peak: +140) | 1 | |
| CASSIDA GREASE EPS 2 | AlCx | 220 | 25 | -35 to +120 (upper peak: +140) | 2 | |
| High-performance, extreme-pressure aluminium complex greases with synthetic base fluid. | manufacturi temperature | ng equipmenes and water s | t, particulary spray occur. (| s, bushings and linka where high pressure ASSIDA GREASE EPS ems and enclosed gea | and loads, h 00 is especi | nigh |

HEAVY DUTY

CASSIDA GREASE HDS 00 | 2

| © © EP ← S S ISF | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|--|------------------------------|---------------------------------|----------------------------------|---|----------------|----------------|
| CASSIDA GREASE HDS 00 | AICX | 800 | 68 | -35 to +120 (upper peak: +120) | 00 | |
| CASSIDA GREASE HDS 2 | AICX | 800 | 68 | -35 to +120 (upper peak: +140) | 2 | |
| High-performance, high-viscosity heavy-duty aluminium complex greases with synthetic base fluid. | equipment, p and water sp | particulary wher | e slower speed CASSIDA GR | ushings and linkages on ds, high pressure and loa EASE HDS 00 is recomm | ads, high tem | nperatures |

and centralised lube systems.

SPECIALTIES

CASSIDA GREASE GTS 2 | GTS SPRAY

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|--|-----------|---------------------------------|----------------------------------|--|----------------|----------------|
| CASSIDA GREASE GTS 2 | CSX | 85 | 12.8 | -45 to +170 (upper peak: +200) | 2 | |
| CASSIDA GREASE GTS SPRAY | CSX | 85 | 12.8** | -45 to +170 (upper peak: +200) | 2* | |
| Speciality extreme-pressure calcium sulphonate complex greases with synthetic base fluid. Excellent extreme pressure, anti-wear and corrosion prevention properties. | | | | f electric motors, pump: ings operating up to 170 | | mixers, |

**without propellant

CASSIDA GREASE GTM 2

| S S EP NSF | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|---|------------------------------|---------------------------------|----------------------------------|---------------------------|----------------|----------------|
| CASSIDA GREASE GTM 2 | CSX | 220 | 25 | -40 to +160 | 2 | |
| Specialty synthetic extreme-pressure grease for food and beverage processing equipment. | Main applic robotic appli | | on bearings of | electric motors, pump | s, conveyors, | mixers and |

CASSIDA GREASE GTX 0 | 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|---|---------------|-------------------------------------|----------------------------------|---|----------------|----------------|
| CASSIDA GREASE GTX 0 | CSX | 460 | 44 | -35 to +160 (upper peak: +200) | 0 | |
| CASSIDA GREASE GTX 2 | CSX | 460 | 44 | -35 to +180 (upper peak: +220) | 2 | |
| High-performance, extreme-pressure calcium sulphonate complex grease with synthetic base fluid. Excellent extreme pressure, anti- wear and corrosion prevention properties. | units and bea | arings. Heavy-lo gs operating up | aded and shoo | electric motors, pumps, ck-loaded applications w ch as machines used to p | rith low- to n | nedium- |

CASSIDA GREASE HTS 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|---|-----------|---|----------------------------------|---------------------------------------|----------------|----------------|
| CASSIDA GREASE HTS 2 | Inorganic | 400 | 40 | -30 to +200 (upper peak: +220) | 2 | |
| Inorganically thickened grease with synthetic base fluid. | | ation: Suitable atures (peak 22 | | ons on food manufactu experienced. | iring equipm | ent where |

SPECIALTIES

CASSIDA GREASE LTS 1

| (S) (NSF) | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|--|-----------|---------------------------------|----------------------------------|--|----------------|----------------|
| CASSIDA GREASE LTS 1 | AlCx | 20 | 4.5 | -50 to +100 (upper peak: +110) | 1 | |
| High-performance aluminium complex grease with low-viscosity synthetic base fluid. | | Particulary recor | | ushing and linkages on t use in cold storage situat | | |

CASSIDA GREASE P 1

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* | |
|--|---|---------------------------------|----------------------------------|-----------------------------------|----------------|----------------|--|
| CASSIDA GREASE P 1 | Inorganic | 770 | 65 | -30 to +150 (upper peak: +180) | 1 | | |
| Specialty high-performance grease. Inorganically thickened with fully synthetic base fluids. | Main application: Lubrication of heavily loaded plain or roller bearings, joints, linkages a slides up to 150°C (peak 180°C) and protection of seals and guides. | | | | | | |

CASSIDA GREASE CLEAR 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|--|--|---------------------------------|----------------------------------|---------------------------|----------------|----------------|
| CASSIDA GREASE CLEAR 2 | Inorganic | 75 | 11.5 | -30 to +170 | 2 | |
| Inorganically thickened clear grease with synthetic base fluid and highly micronised white solid lubricant (PTFE). | Main application: Lubrication of plain or roller bearings, joints, linkages and slides. Lubrication and protection of seals and guides, operating in food, pharmaceutical and other clean environments. | | | | | |

CASSIDA GREASE MD 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|--|--------------|---------------------------------|----------------------------------|---|----------------|----------------|
| CASSIDA GREASE MD 2 | PTFE | 650 | 250 | -40 to +200 (upper peak: +250) | 2–3 | |
| High-performance, silicone-based speciality grease specially developed for the lubrication and sealing of taps, valves and fittings with EPDM seals. Suitable for use with other seal materials normally used in food machinery lubrication systems. Good resistance to hot water, steam and disinfectant solutions. | drinks and b | eer. Seals on a | utoclaves and | nd fittings used for the d sterilisers. Suitable fo term exposure to temp | r continuou | s operation |

CASSIDA Product Range

SPECIALTIES

CASSIDA GREASE FC 1 | 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|---------------------|-----------|---------------------------------|----------------------------------|-----------------------------------|----------------|----------------|
| CASSIDA GREASE FC 1 | PTFE | 510 | 47 | -25 to +260 (upper peak: +280) | 1 | |
| CASSIDA GREASE FC 2 | PTFE | 510 | 47 | -25 to +260 (upper peak: +280) | 2 | |

Fully synthetic, high-performance, high-temperature greases for the filled-for-life lubrication of bearings and seals used in extreme temperatures and/or aggressive environments. Effective anti-corrosion prevention characteristics. Excellent elastomer compatibility. Suitable for applications where components might be exposed to reactive chemicals and gases; chemically inert or non-reactive in the event of contact with strong acids, alkalis and halogens. Excellent elastomer compatibility.

Main application: Plain/roller bearing elements, joints, microbearings, precision tools, linkages and mechanical seals. Suitable for continuous operation at temperatures up to 260°C and short-term exposure to temperatures not exceeding 300°C.

CASSIDA PASTE AP

| ₩SF NSF | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* |
|--|---|---------------------------------|----------------------------------|---------------------------|----------------|----------------|
| CASSIDA PASTE AP | Inorganic | 85 | 12 | -40 to +1200 | 1 | |
| Synthetic assembly/disassembly paste for food and beverage processing equipment. | Main application: Assembly and disassembly paste with an extremely large range of applications, for example, screw paste for high-alloy steels to optimise the tightening torque mounting and pressing of bearings, and disks, wheels and bolts, for the lubrication of adjusting mechanisms as well as for drifting, bending, punching, pressing and stamping. Protects from fretting corrosion. Protects from seizing – easy disassembling. | | | | | |



CASSIDA Product Range

For your notes

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CASSIDA FM RANGE

The FM Series of the CASSIDA product portfolio are white-oil-based or semi-synthetic-based food grade lubricating fluids and greases. They are used in similar applications as the CASSIDA series. Especially in cases of total loss lubrication FM lubricants are preferred – as found for example in the animal feed and beverage industry.

CASSIDA FM Range (semi-synthetic or white-oil-based)

| Hydraulic Oils | |
|---|----|
| CASSIDA FM HYDRAULIC OIL 32 46 68 100 | 32 |
| Gear Oils | |
| CASSIDA FM GEAR OIL TLS 150 | 32 |
| CASSIDA FM GEAR OIL 220 460 | 32 |
| Specialties | |
| CASSIDA FM FLUID DC 20 68 | 33 |
| CASSIDA FM FLUID RC 150 220 | 33 |
| CASSIDA FM FLUSHING FLUID 32 | 33 |
| CASSIDA FM HEAT TRANSFER FLUID 32 | 33 |
| CASSIDA FM SUGAR DISSOLVING FLUID | 34 |
| Greases | |
| CASSIDA FM GREASE DC 2 FM GREASE DC SPRAY | 34 |
| CASSIDA FM GREASE EP 1.5 | 34 |
| CASSIDA FM GREASE HD 1.5 2 | 35 |

Application Equipment

| Grease Gun | |
|-----------------------|------|
| HD GREASE GUN CASSIDA | . 35 |

HYDRAULIC OILS

CASSIDA FM HYDRAULIC OIL 32 | 46 | 68 | 100

| SS = (7)= NSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | |
|--|--|-------------------------------|---------------------------------|----------------|--|
| CASSIDA FM HYDRAULIC OIL 32 | 32 | 5.7 | 0 to +110 (upper peak: +120) | DIN 51524 HLP | |
| CASSIDA FM HYDRAULIC OIL 46 | 46 | 7 | 0 to +110 (upper peak: +120) | DIN 51524 HLP | |
| CASSIDA FM HYDRAULIC OIL 68 | 68 | 9 | 0 to +110 (upper peak: +120) | DIN 51524 HLP | |
| CASSIDA FM HYDRAULIC OIL 100 | 100 | 11.5 | 0 to +110 (upper peak: +120) | DIN 51524 HLP | |
| Hydraulic fluids for food and beverage processing equipment. | Main application: Hydraulic systems, hydrostatic gears and control systems, plain and anti-friction bearings on food handling and processing equipment. | | | | |

GEAR OILS

CASSIDA FM GEAR OIL TLS 150

| Since the second secon | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|------------------------------|-------------------------------|--|------------------------|
| Cassida FM Gear Oil TLS 150 | 150 | 15 | 0 to +110 (upper peak: +120) | DIN 51517 CLP |
| Speciality anti-wear gear lubricant specifically designed for use in the food and beverage canning industry. Provides good lubrication even when operating in locations where it is subject to contamination with water, juice and food. Holds these contaminants in suspension, thus protecting metal surfaces from wear and corrosion. Only to be used for total loss systems. | | | mer gearboxes on food h al machine lubrication. | andling and processing |

CASSIDA FM GEAR OIL 220 | 460

| (S) (NSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | | |
|---|---|-------------------------------|---------------------------------|----------------|--|--|
| CASSIDA FM GEAR OIL 220 | 220 | 20 | 0 to +110 (upper peak: +120) | DIN 51517 CLP | | |
| CASSIDA FM GEAR OIL 460 | 460 | 30 | 0 to +110 (upper peak: +120) | DIN 51517 CLP | | |
| Gear lubricants for food and beverage processing equipment. | Main application: Suitable for gearboxes on food handling and processing equipment. May also be used for general machine lubrication or as a flushing fluid. | | | | | |

CASSIDA Product Range

SPECIALTIES

CASSIDA FM FLUID DC 20 | 68

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | |
|--|---|-------------------------------|---------------------------------|----------------|--|
| CASSIDA FM FLUID DC 20 | 22 | 4 | 0 to +120 (upper peak: +130) | | |
| CASSIDA FM FLUID DC 68 | 68 | 9.5 | 0 to +120 (upper peak: +130) | | |
| White mineral oil, multipurpose, low-volatility fluids suitable for both direct and incidental food contact applications. Can handle a wide range of applications. | Main application: Absorber oils for edible oil extraction plant solvent recovery systems. Release agent used on grills, loaf pans, cutters, boning benches, chopping blocks or other hard surfaces to help prevent food from adhering during processing. Forming oils for the manufacture of both two- and three-piece cans for food and beverages. | | | | |

CASSIDA FM FLUID RC 150 | 220

| (NSF) | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|--|------------------------------|-------------------------------|--|----------------|
| CASSIDA FM FLUID RC 150 | 150 | 15.5 | -10 to +140 (upper peak: +150) | DIN 51517 CLP |
| CASSIDA FM FLUID RC 220 | 220 | 20.4 | -10 to +140 (upper peak: +150) | DIN 51517 CLP |
| Special high-performance fluids specially developed for use in rotary cooking equipment in food and beverage canning plants. Provide good lubrication even when operating in locations where they are subject to contamination with water. | | | tralised systems of rotary es and other moving comp | |

CASSIDA FM FLUSHING FLUID 32

| & → WSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | | | | |
|--|---|-------------------------------|-----------------------------------|----------------|--|--|--|--|
| Cassida FM Flushing Fluid 32 | 31 | 5.2 | -10 to +150 (upper peak: +325) | DIN 51522 Q | | | | |
| Specialty cleaning and flushing concentrate for heat transfer systems operating in the food and beverage industry. | Main application: FM FLUSHING FLUID 32 is recommended for use in closed heat transfer systems which suffer from carbon formation due to thermal and oxidative degradation. | | | | | | | |

CASSIDA FM HEAT TRANSFER FLUID 32

promote long service life.

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | |
|--|------------------------------|-------------------------------|---------------------------------|---|--|
| Cassida FM Heat transfer fluid 32 | 35 | 6 | 0 to +325 (upper peak: +340) | DIN 51522 Q | |
| High-performance heat transfer fluid. Can handle a wide range of application temperatures and has excellent thermal and oxidative stability to minimise cracking and | temperature rang | e of approximately - | | insfer systems with a bulk where the surface tempera | |

SPECIALTIES

CASSIDA FM SUGAR DISSOLVING FLUID

| NSF NSF | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications | | | | |
|---|--|-------------------------------|------------------------|----------------|--|--|--|--|
| CASSIDA FM SUGAR DISSOLVING FLUID | 36 | 5.7 | n.a. | | | | | |
| Emulsifiable oil-based cleaning and rust protecting concentrate. Designed to be used in mixtures with potable water on machine surfaces in the food and sugar manufacturing industry. | Main application: For cleaning and flushing sugar or sugar-based deposits from food and beverage manu-facturing equipment. For freeing moving parts or screws and bolts that are stuck with sugar deposits. For lubrication of lightly loaded bearings and slideways, especially where sugar deposits are likely to form. | | | | | | | |

GREASES

CASSIDA FM GREASE DC 2 | CASSIDA FM GREASE DC SPRAY

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* | |
|---|--|---------------------------------|----------------------------------|---------------------------|----------------|----------------|--|
| CASSIDA FM GREASE DC 2 | Inorganic | 100 | 11 | -10 to +120 | 2 | | |
| CASSIDA FM GREASE DC 2 SPRAY | Inorganic | 100 | 11 | -10 to +120 | 00* | | |
| White mineral oil grease, multipurpose, suitable for both direct and incidental food contact applications. Can handle a wide range of applications. | Main application: For use as a direct food contact release agent for grills, loaf pans, cutters, boning benches, chopping blocks and other hard surfaces to help prevent food from adhering during processing. Lubrication and protection of seals, guides, bearings and blades operating in food, pharmaceutical and other clean environments where direct food contact is inevitable. | | | | | | |

*without propellant

CASSIDA FM GREASE EP 1.5

| S S EP NSF | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* | |
|---|---|---------------------------------|----------------------------------|-----------------------------------|----------------|----------------|--|
| CASSIDA FM GREASE EP 1.5 | AlCx mod. | 200 | 22 | -20 to +130 (upper peak: +140) | 1.5 | | |
| Modified aluminium complex multipurpose, extreme pressure grease. | Main application: For use on slow to medium Speed plain and rolling element bearings in regular or heavy loaded applications. Recommended for use in machinery requiring frequent changes of the grease charge or with a high product consumption rate, such as machines used to process pet food and animal feed. | | | | | | |

GREASES

CASSIDA FM GREASE HD 1.5 | 2

| ® © <u>EP</u> NSF | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI- Grade | Color Code* | |
|--|--|---------------------------------|----------------------------------|-----------------------------------|----------------|----------------|--|
| CASSIDA FM GREASE HD 1.5 | AlCx mod. | 550 | 38 | -10 to +140 (upper peak: +150) | 1.5 | | |
| CASSIDA FM GREASE HD 2 | AlCx mod. | 550 | 38 | -10 to +140 (upper peak: +150) | 2 | | |
| Modified aluminium complex heavy-duty, extreme- pressure greases. | Main application: For use on slow to medium-speed plain and rolling element bearings in heavy-loaded and shock-loaded applications. Recommended for use in machinery requiring frequent changes of the grease charge or with a high product consumption rate, such as machines used to process pet food and animal feed. | | | | | | |

Application Equipment

GREASE GUN

HD GREASE GUN CASSIDA

The two-handed gun guarantees clean and safe lubrication of machines in the food industry. It delivers a large volume of lubricant per stroke. Particularly simple handling is achieved with the use of matching cartridges with a screw cap.

The gun is pre-lubricated with food grade grease, which ensures the highest level of food safety.

- Operation pressure up to 400 bar / 5,800 psi
- Ergonomic grips for optimum operation
- Twin-lock system protects the piston from wear and avoids grease escaping the piston
- Protecting cap to prevent contamination at hose end
- Flexible armoured hose for optimum accessibility of lubricating points
- Output: 1.5 cm³/stroke
- Available with 500 g SR cartridges
- Complete discharge of the SR cartridge by special piston shape
- Colour coding of cartridges avoids mixing up different lubricants



The information contained in this product information is based on the experience and know-how of FUCHS LUBRITECH in the development and manufacturing of lubricants and represents the current state of the art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pretreatment, possible external contamination, etc. For this reason, universally valid statements about the function of our products are not possible. The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application.

We therefore recommend that you consult a FUCHS LUBRITECH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

Our products undergo continuous improvement. We therefore retain the right to change our product range, the products and their manufacturing processes as well as all details of our product information sheets at any time and without warning. With the publication of this product information, all previous editions cease to be valid.

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CASSIDA Food Grade Lubricants

Innovative lubricants need experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then the best lubricant system can be selected. Experienced FUCHS engineers will be glad to advise on products for the application in question and also on our full range of lubricants.



Contact:



Global Headquarters FUCHS LUBRITECH GmbH Werner-Heisenberg-Strasse 1 67661 Kaiserslautern/Germany Tel.: +49 6301 3206-0

Tel.: +49 6301 3206-0 cassida@fuchs.com www.fuchs.com/lubritech