



# CASSIDA Food Grade Lubricants

Product Range

LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.



**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.



## **LUBRITECH**

### *Special Application Lubricants*

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#### **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: 2008, ISO 21469, Halal, Kosher

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**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.**



## CASSIDA – FOOD GRADE LUBRICANTS

The CASSIDA product line of FUCHS LUBRITECH offers a comprehensive range of high-performance lubricants for the food and beverage industries, including fully synthetic as well as semi-synthetic and white-oil-based products. Each product's composition is always optimised to ensure maximum suitability for their respective application.

This product catalogue introduces our product portfolio and gives an overview of the wide range of CASSIDA products, including CASSIDA Fluids (fully synthetic), CASSIDA Greases (fully synthetic) and CASSIDA FM Lubricants (white-oil-based and semi-synthetic).

The food experts of the LUBRITECH team or your local sales partner will be happy to assist you in finding the best products for your application. You will receive individual, competent advice and recommendations for products that are best suited for fulfilling your particular requirements.





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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.





#### **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 Kaiserslautern 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.

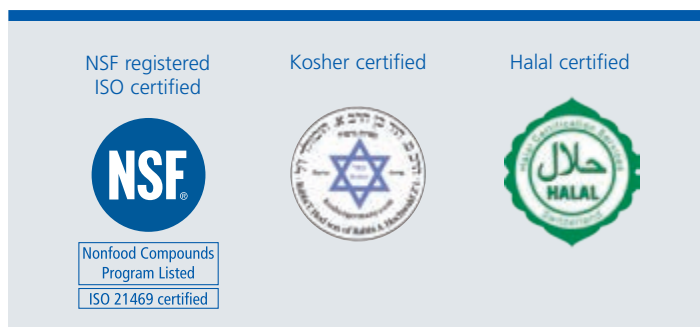
Additionally, our CASSIDA products fulfil the strict requirements of both Jewish and Muslim laws and regulations. The respective Kosher and Halal certificates guarantee the highest possible level of product and food safety.

### 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.



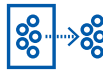
## Guide to Symbols



Roller bearings



Plain bearings



Flushing



High temperature



Low temperature



Can seamers and sterilisers



Chains



Conveyors



Gears – open



Gears – enclosed



Extreme pressure



Industrial coolants



Heat transfer



Hydraulics



Valves, taps and fittings



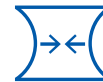
Compressors



Direct food contact



Sugar dissolving



Vacuum pumps



Maintenance spray



Slideways



Mounting/assembly/  
disassembly aid



Maintenance aid



Worm gears



Linkages, pins



Anti-corrosive



NSF registered



## 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.

## Overview of fully synthetic CASSIDA Fluids

<b>Chain Oils</b>	CASSIDA CHAIN OIL 150   320 SPRAY   1500   1500 SPRAY   5000 SPRAY .....	14
	CASSIDA CHAIN OIL LT   LT SPRAY .....	14
	CASSIDA CHAIN OIL SP .....	14
	CASSIDA CHAIN OIL HTE .....	14
	CASSIDA CHAIN OIL HTX .....	15
<b>Compressor Fluids</b>	CASSIDA FLUID CR 32   46   68   100   150 .....	15
	CASSIDA FLUID RF 46   68 .....	15
<b>Direct Contact Fluids - Multiple Applications</b>	CASSIDA FLUID DC 20   32 .....	16
	CASSIDA FLUID DCE 15   DCE 15 SPRAY .....	16
<b>Gear Fluids</b>	CASSIDA FLUID GL 150   220   320   460   680 .....	17
	CASSIDA FLUID GLE 150   220 .....	17
	CASSIDA FLUID WG 220   320   460   680   1000 .....	17
<b>Hydraulic Oils</b>	CASSIDA FLUID HF 15   32   46   68   100 .....	18
	CASSIDA FLUID HFS 15   32   46   68   100 .....	18
<b>Vacuum Pump Fluids</b>	CASSIDA FLUID VP 68   100 .....	18
<b>Maintenance Fluids and Specialties</b>	CASSIDA FLUID FL 5   FL 5 SPRAY .....	19
	CASSIDA SILICONE FLUID   CASSIDA SILICONE FLUID SPRAY .....	19
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	CASSIDA FLUID CP   CASSIDA FLUID CP SPRAY .....	20
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## CHAIN OILS

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

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
Fully synthetic, very high-performance chain oils. Highly resistant to fling-off or wash-off. Excellent protection against wear and corrosion.	CASSIDA CHAIN OIL 150	150	19
<b>Main application:</b> Lubrication of drive and transport chains in the food industry. Can be applied by brush, via bath, automatic lubrication systems or spraying.	CASSIDA CHAIN OIL 320 SPRAY	320*	34*
	CASSIDA CHAIN OIL 1500	1500	135
	CASSIDA CHAIN OIL 1500 SPRAY	1500*	135*
	CASSIDA CHAIN OIL 5000 SPRAY	5000*	350*


\*after evaporation of solvent

### CASSIDA CHAIN OIL LT | LT Spray

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
Fully synthetic, high-performance anti-wear chain oil suitable for a wide range of temperatures, including sub-zero conditions.	CASSIDA CHAIN OIL LT	32	6.5
<b>Main application:</b> 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.	CASSIDA CHAIN OIL LT SPRAY	32*	6.5*


\*after evaporation of solvent

### CASSIDA CHAIN OIL SP

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 40°C [mm <sup>2</sup> /s]
Fully synthetic, high-performance, anti-wear chain oil with excellent creeping and penetrating features.	CASSIDA CHAIN OIL SP	85	460*
<b>Main application:</b> 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

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
Fully synthetic, ester-based, high-temperature chain lubricant suitable for temperatures of up to 240°C.	CASSIDA CHAIN OIL HTE	220	20
<b>Main application:</b> Drive and transport chains in the food industry. Also intended for use in equipment for manufacturing food packaging.			


## CHAIN OILS

### CASSIDA CHAIN OIL HTX


		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
<p>Fully synthetic, extreme-temperature chain lubricant suitable for temperatures up to 300°C.</p> <p><b>Main application:</b> Drive and transport chains in the food industry (e.g. bakeries). Also intended for use in equipment for manufacturing food packaging.</p>	CASSIDA CHAIN OIL HTX	330	40

## COMPRESSOR FLUIDS

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


		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
<p>Fully synthetic, very high-performance, long-life compressor oils. Meet DIN 51506 VBL, VCL, VDL and ISO 6743-3A DAH, DAG, DAJ specifications.</p> <p><b>Main application:</b> Oil-flooded rotary vane and screw air compressors in food processing plants.</p>	CASSIDA FLUID CR 32	32	6.1
	CASSIDA FLUID CR 46	46	8.0
	CASSIDA FLUID CR 68	68	11
	CASSIDA FLUID CR 100	100	14
	CASSIDA FLUID CR 150	150	19

### CASSIDA FLUID RF 46 | 68


		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
<p>Fully synthetic lubricants for refrigeration compressors used in the food industry.</p> <p><b>Main application:</b> Recommended for use in open- and semi-open compressors, both screw and reciprocating types. Designed for applications with ammonia (R717), offering excellent performance under high and low evaporation temperatures. Can also be used with halogenated hydrocarbons (R22) and isobutane (R600a).</p>	CASSIDA FLUID RF 46	46	7.8
	CASSIDA FLUID RF 68	68	9.7

## DIRECT CONTACT FLUIDS - MULTIPLE APPLICATIONS

### CASSIDA FLUID DC 20 | 32

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
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 and promote long service life.	CASSIDA FLUID DC 20	23	4.8
	CASSIDA FLUID DC 32	32	6
<b>Main application:</b> 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




		Typical Viscosity at 20°C [mm <sup>2</sup> /s]	Typical Viscosity at 40°C [mm <sup>2</sup> /s]
Synthetic multifunctional mineral oil hydrocarbon free direct contact fluid for food processing applications in the food manufacturing industry.	CASSIDA FLUID DCE 15	31	14.8
	CASSIDA FLUID DCE 15 SPRAY	31*	14.8*
<b>Main application:</b> 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







## GEAR FLUIDS




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

  		Typical Viscosity	Typical Viscosity
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]
<p>Fully synthetic, very high-performance, long-life, anti-wear gear oils. Meet DIN 51517 CLP and ISO 6743/6 specifications.</p> <p><b>Main application:</b> Suitable for gearboxes on food handling and processing equipment. May also be used for general machine lubrication, for example, on chains.</p>	CASSIDA FLUID GL 150	150	19
	CASSIDA FLUID GL 220	220	25
	CASSIDA FLUID GL 320	320	33
	CASSIDA FLUID GL 460	460	44
	CASSIDA FLUID GL 680	680	59

### CASSIDA FLUID GLE 150 | 220


   		Typical Viscosity	Typical Viscosity
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]
<p>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.</p> <p><b>Main application:</b> 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.</p>	CASSIDA FLUID GLE 150	150	19
	CASSIDA FLUID GLE 220	220	25

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


  		Typical Viscosity	Typical Viscosity
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]
<p>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.</p> <p><b>Main application:</b> 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.</p>	CASSIDA FLUID WG 220	220	42
	CASSIDA FLUID WG 320	320	61
	CASSIDA FLUID WG 460	460	83
	CASSIDA FLUID WG 680	680	122
	CASSIDA FLUID WG 1000	1000	163

## HYDRAULIC OILS

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


			Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
	<p>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.</p> <p><b>Main application:</b> Hydraulic systems, hydrostatic gears and control systems, plain and anti-friction bearings on food handling and processing equipment.</p>	CASSIDA FLUID HF 15	15	3.6
	CASSIDA FLUID HF 32	32	6	
	CASSIDA FLUID HF 46	46	8	
	CASSIDA FLUID HF 68	68	11	
	CASSIDA FLUID HF 100	100	14	

### CASSIDA FLUID HFS 15 | 32 | 46 | 69 | 100

			Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
	<p>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.</p> <p><b>Main application:</b> 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.</p>	CASSIDA FLUID HFS 15	15	4
	CASSIDA FLUID HFS 32	32	6	
	CASSIDA FLUID HFS 46	46	8	
	CASSIDA FLUID HFS 69	69	11	
	CASSIDA FLUID HFS 100	100	14	


## VACUUM PUMP FLUIDS

### CASSIDA FLUID VP 68 | 100

			Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
	<p>Fully synthetic, high-performance vacuum pump oils.</p> <p><b>Main application:</b> Vacuum pumps producing a medium vacuum, used in the food and beverage processing and packing industry.</p>	CASSIDA FLUID VP 68	68	10.5
	CASSIDA FLUID VP 100	100	14	

## MAINTENANCE FLUIDS and SPECIALTIES


### CASSIDA FLUID FL 5 | FL 5 Spray

	Typical Viscosity at 20°C [mm <sup>2</sup> /s]	Typical Viscosity at 40°C [mm <sup>2</sup> /s]	
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.	CASSIDA FLUID FL 5	3.8	1.1
	CASSIDA FLUID FL 5 SPRAY	3.8*	1.1*

**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

### CASSIDA SILICONE FLUID | CASSIDA SILICONE FLUID Spray

	Typical Viscosity at 25°C [mm <sup>2</sup> /s]	Typical Viscosity at 40°C [mm <sup>2</sup> /s]	
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.	CASSIDA SILICONE FLUID	350	270
	CASSIDA SILICONE FLUID Spray	1000*	730*

**Main application:** For lubrication of conveyors; slow rotating machinery; small, slow-speed bearings and pivot points found in equipment in the food industry.

\*without propellant

### CASSIDA PTFE DRY Spray


	Typical Viscosity at 20°C [mm <sup>2</sup> /s]	
Synthetic PTFE multipurpose and maintenance lubricant, based on a unique blend of components.	CASSIDA PTFE DRY SPRAY	0.8*

**Main application:** For use on belts, cams, chains, cables, conveyors, sliding tracks, joints, pivots, lifts, pulleys, threaded parts, bolts, rollers, taps, valves and many other moving parts. For lubrication and protection of seals and guides, operating in food, pharmaceutical and other clean environments where incidental food contact is possible.

\*including solvent

## MAINTENANCE FLUIDS and SPECIALTIES


### CASSIDA FLUID CP | CASSIDA FLUID CP Spray

	Typical Viscosity at 20°C [mm <sup>2</sup> /s]	Typical Viscosity at 40°C [mm <sup>2</sup> /s]
<p>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 components.</p>	4.9*	3.8*
<p><b>Main application:</b> Protection for machinery of all kind during shipping and distribution. For metal parts and tools after galvanic conditioning and cleaning processes. For gearbox housings, gear-wheels, couplings, driveshafts, measuring tools, precision tools, etc. As a temporary protection of sub-assemblies.</p>	4.9**	3.8**

\* including solvent

\*\* without propellant, including solvent

### CASSIDA COOLANT

	Typical Viscosity at 20°C [mm <sup>2</sup> /s]	Typical Viscosity at 40°C [mm <sup>2</sup> /s]
<p>Propylene-glycol-based fluid containing anti-corrosion 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.</p>	47	17
<p><b>Main application:</b> 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.</p>		





## 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.

**Overview of CASSIDA Greases**

<b>Regular Load</b>	CASSIDA GREASE RLS 000   00   0   1   2 .....	24
<b>Extreme Pressure</b>	CASSIDA GREASE EPS 00   1   2 .....	24
<b>Heavy Duty</b>	CASSIDA GREASE HDS 00   2 .....	24
<b>Specialties</b>	CASSIDA GREASE GTS 2   GTS SPRAY .....	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 00 | 00 | 0 | 1 | 2

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
<p>High-performance, regular-load aluminium complex greases with synthetic base fluid.</p> <p><b>Main application:</b> For use on bearings, bushings and linkages on food manufacturing equipment. CASSIDA GREASE RLS 0 and 00 are particularly recommended for centralised lube systems or other similar systems where an NLGI 2 grease may be difficult to dispense.</p>	CASSIDA GREASE RLS 000	100	13	<000
	CASSIDA GREASE RLS 00	100	13	00
	CASSIDA GREASE RLS 0	150	18	0
	CASSIDA GREASE RLS 1	150	18	1
	CASSIDA GREASE RLS 2	150	18	2


## EXTREME PRESSURE

### CASSIDA GREASE EPS 00 | 1 | 2

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
<p>High-performance, extreme-pressure aluminium complex greases with synthetic base fluid.</p> <p><b>Main application:</b> For use on bearings, bushings and linkages on food manufacturing equipment, particularly where high pressure and loads, high temperatures and water spray occur. CASSIDA GREASE EPS 00 is especially recommended for centralised lube systems and enclosed gears.</p>	CASSIDA GREASE EPS 00	220	25	00
	CASSIDA GREASE EPS 1	220	25	1
	CASSIDA GREASE EPS 2	220	25	2

## HEAVY DUTY


### CASSIDA GREASE HDS 00 | 2

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
<p>High-performance, high-viscosity heavy-duty aluminium complex greases with synthetic base fluid.</p> <p><b>Main application:</b> For use on bearings, bushings and linkages on food manufacturing equipment, particularly where slower speeds, high pressure and loads, high temperatures and water spray are present. CASSIDA GREASE HDS 00 is recommended for open gears and centralised lube systems.</p>	CASSIDA GREASE HDS 00	800	68	00
	CASSIDA GREASE HDS 2	800	68	2



## SPECIALTIES


## CASSIDA GREASE GTS 2 | GTS SPRAY

		Typical Viscosity	Typical Viscosity	NLGI-Grade
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]	
Speciality extreme-pressure calcium sulphonate complex greases with synthetic base fluid. Excellent extreme pressure, anti-wear and corrosion prevention properties.	CASSIDA GREASE GTS 2	85	12.8	2
	CASSIDA GREASE GTS SPRAY	85*	12.8*	2*

**Main application:** For use on bearings of electric motors, pumps, conveyors, mixers, gear units and medium- to high-speed bearings operating up to 170°C.


\*without propellant

## CASSIDA GREASE GTX 0 | 2

		Typical Viscosity	Typical Viscosity	NLGI-Grade
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]	
High-performance, extreme-pressure calcium sulphonate complex grease with synthetic base fluid. Excellent extreme pressure, anti-wear and corrosion prevention properties.	CASSIDA GREASE GTX 0	460	44	0
	CASSIDA GREASE GTX 2	460	44	2

**Main application:** For use on bearings of electric motors, pumps, conveyors, mixers, gear units and bearings. Heavy-loaded and shock-loaded applications with low- to medium-speed bearings operating up to 180°C, such as machines used to process pet food and animal feed.


## CASSIDA GREASE HTS 2

		Typical Viscosity	Typical Viscosity	NLGI-Grade
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]	
Inorganically thickened grease with synthetic base fluid.	CASSIDA GREASE HTS 2	400	40	2

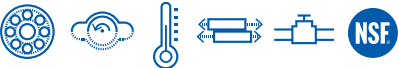
**Main application:** Suitable for applications on food manufacturing equipment where high temperatures (peak 220°C) may be experienced.

## SPECIALTIES


### CASSIDA GREASE LTS 1

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
High-performance aluminium complex grease with low-viscosity synthetic base fluid.	CASSIDA GREASE LTS 1	20	4.5	1
<p><b>Main application:</b> For use on bearings, bushing and linkages on food manufacturing equipment. Particularly recommended for use in cold storage situations with temperatures down to -50°C.</p>				


### CASSIDA GREASE P 1

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
Specialty high-performance grease. Inorganically thickened with fully synthetic base fluids.	CASSIDA GREASE P 1	770	65	1
<p><b>Main application:</b> Lubrication of heavily loaded plain or roller bearings, joints, linkages and slides up to 150°C (peak 180°C) and protection of seals and guides.</p>				

### CASSIDA GREASE CLEAR 2

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
Inorganically thickened clear grease with synthetic base fluid and highly micronised white solid lubricant (PTFE).	CASSIDA GREASE CLEAR 2	75	11.5	2
<p><b>Main application:</b> 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.</p>				

### CASSIDA GREASE MD 2

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
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.	CASSIDA GREASE MD 2	650	250	2–3
<p><b>Main application:</b> Taps, flow meters and fittings used for the handling of water, drinks and beer. Seals on autoclaves and sterilisers. Suitable for continuous operation at temperatures up to 180°C and short-term exposure to temperatures not exceeding 250°C.</p>				

## SPECIALTIES

## CASSIDA GREASE FC 1 | 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.

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
CASSIDA GREASE FC 1		510	47	1
CASSIDA GREASE FC 2		510	47	2

## CASSIDA PASTE AP



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.

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
CASSIDA PASTE AP		85	12	1







## 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.

## Overview of the semi-synthetic or white-oil-based CASSIDA FM Range

<b>Hydraulic Oils</b>	CASSIDA FM HYDRAULIC OIL 32   46   68   100.....	32
<b>Gear Oils</b>	CASSIDA FM GEAR OIL TLS 150 .....	32
	CASSIDA FM GEAR OIL 220   460 .....	32
<b>Specialties</b>	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
<b>Greases</b>	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
<b>Grease Gun</b>	HD GREASE GUN CASSIDA .....	35


## HYDRAULIC OILS

### CASSIDA FM HYDRAULIC OIL 32 | 46 | 68 | 100


		Typical Viscosity	Typical Viscosity
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]
Hydraulic fluids for food and beverage processing equipment.  <b>Main application:</b> Hydraulic systems, hydrostatic gears and control systems, plain and anti-friction bearings on food handling and processing equipment.	CASSIDA FM HYDRAULIC OIL 32	32	5.7
	CASSIDA FM HYDRAULIC OIL 46	46	7
	CASSIDA FM HYDRAULIC OIL 68	68	9
	CASSIDA FM HYDRAULIC OIL 100	100	11.5

## GEAR OILS

### CASSIDA FM GEAR OIL TLS 150

		Typical Viscosity	Typical Viscosity
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]
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.  <b>Main application:</b> Suitable for can seamer gearboxes on food handling and processing equipment. May also be used for general machine lubrication.	CASSIDA FM GEAR OIL TLS 150	150	15



### CASSIDA FM GEAR OIL 220 | 460

		Typical Viscosity	Typical Viscosity
		at 40°C [mm <sup>2</sup> /s]	at 100°C [mm <sup>2</sup> /s]
Gear lubricants for food and beverage processing equipment.  <b>Main application:</b> Suitable for gearboxes on food handling and processing equipment. May also be used for general machine lubrication or as a flushing fluid.	CASSIDA FM GEAR OIL 220	220	20
	CASSIDA FM GEAR OIL 460	460	30







## SPECIALTIES



## CASSIDA FM FLUID DC 20 | 68

 			Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
	White mineral oil, multipurpose, low-volatility fluids suitable for both direct and incidental food contact applications. Can handle a wide range of applications.	CASSIDA FM FLUID DC 20		22
	CASSIDA FM FLUID DC 68		68	9.5
<p><b>Main application:</b> 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.</p>				




## CASSIDA FM FLUID RC 150 | 220

   			Typical Viscosity at 20°C [mm <sup>2</sup> /s]	Typical Viscosity at 40°C [mm <sup>2</sup> /s]
	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.	CASSIDA FM FLUID RC 150		150
CASSIDA FM FLUID RC 220			220	20.4
<p><b>Main application:</b> For use in the centralised systems of rotary cookers and sterilisers which lubricate the can exchange valves and other moving components.</p>				

## CASSIDA FM FLUSHING FLUID 32


 			Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
	Specialty cleaning and flushing concentrate for heat transfer systems operating in the food and beverage industry.	CASSIDA FM FLUSHING FLUID 32		31
<p><b>Main application:</b> FM FLUSHING FLUID 32 is recommended for use in closed heat transfer systems which suffer from carbon formation due to thermal and oxidative degradation.</p>				

## CASSIDA FM HEAT TRANSFER FLUID 32

  			Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
	High-performance heat transfer fluid. Can handle a wide range of application temperatures and has excellent thermal and oxidative stability to minimise cracking and promote long service life.	CASSIDA FM HEAT TRANSFER FLUID 32		35
<p><b>Main application:</b> For closed-circuit and pressureless heat transfer systems with a bulk oil temperature range of approximately -10°C to max. +325°C where the surface temperature of the heating elements (oil film temperature) should not exceed +340°C.</p>				


## SPECIALTIES

### CASSIDA FM SUGAR DISSOLVING FLUID

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]
<p>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.</p> <p><b>Main application:</b> For cleaning and flushing sugar or sugar-based deposits from food and beverage manufacturing 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.</p>	CASSIDA FM SUGAR DISSOLVING FLUID	36	5.7


## GREASES

### CASSIDA FM GREASE DC 2 | CASSIDA FM GREASE DC SPRAY

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
<p>White mineral oil grease, multipurpose, suitable for both direct and incidental food contact applications. Can handle a wide range of applications.</p> <p><b>Main application:</b> 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.</p>	CASSIDA FM GREASE DC 2	100	11	2
	CASSIDA FM GREASE DC 2 SPRAY	100	11	00*

\*without propellant

### CASSIDA FM GREASE EP 1.5

		Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
<p>Modified aluminium complex multipurpose, extreme pressure grease.</p> <p><b>Main application:</b> 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.</p>	CASSIDA FM GREASE EP 1.5	200	22	1.5

## GREASES

### CASSIDA FM GREASE HD 1.5 | 2



Modified aluminium complex heavy-duty, extreme-pressure greases.

**Main application:** For use on slow to medium-speed plain and rolling element bearings in heavily 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.

Typical Viscosity  
at 40°C [mm<sup>2</sup>/s]

Typical Viscosity  
at 100°C [mm<sup>2</sup>/s]

NLGI-Grade

	Typical Viscosity at 40°C [mm <sup>2</sup> /s]	Typical Viscosity at 100°C [mm <sup>2</sup> /s]	NLGI-Grade
CASSIDA FM GREASE HD 1.5	550	38	1.5
CASSIDA FM GREASE HD 2	550	38	2

## 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 cm<sup>3</sup>/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.

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## 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 (0) 6301 3206-0  
cassida@fuchs-lubritech.de  
www.fuchs.com/lubritech