



**FUCHS** Special Applications

Product Range

**Food Grade Products**

*MOVING YOUR WORLD*

LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.



## FUCHS LUBRICANTS GERMANY

We don't just develop lubricants. For highly complex challenges in a wide range of industries, we develop innovative lubricant solutions that enable the mobility of tomorrow. Our goal: to keep our customers' world in motion. Efficient, sustainable, reliable. Today and tomorrow.

What can we move for you?





## FUCHS LUBRICANTS GERMANY

---

### Facts and figures

**Company:** FUCHS LUBRICANTS GERMANY GmbH, a company of the FUCHS Group

**Locations:** Mannheim, Dohna, Kaiserslautern, Kiel and Wedel; approx. 1,400 employees

**Product range:** A full range of more than 3,000 products for all application areas

**Certifications i. a.:** ISO 9001, IATF 16949, ISO 14001, ISO 45001, ISO 50001, ISO 21469, HALAL, KOSHER (detailed certifications at [www.fuchs.com/de/en](http://www.fuchs.com/de/en))

**Gate-to-Gate\* CO<sub>2</sub>-compensated**

---

FUCHS LUBRICANTS GERMANY is a subsidiary of FUCHS SE, the world's largest independent supplier of lubricant solutions. Around 1,400 specialists at the headquarters in Mannheim and the sites in Kaiserslautern, Wedel, Kiel and Dohna work with dedication on innovative lubricant solutions that enable the mobility of tomorrow.

The high level of technical consulting expertise combined with the largest, nationwide network of its own technical contacts makes FUCHS LUBRICANTS GERMANY a reliable local partner. A comprehensive product range, supplemented by digital offerings and Smart Services, as well as many years of lubricant expertise and a high level of research competence are the foundations for the innovative FUCHS lubricant solutions. They reduce wear and energy requirements, extend the running times and service life of machines, and thus keep the world moving – from industrial motors and e-cars to wind turbines and washing machines. FUCHS LUBRICANTS GERMANY is certified according to a wide range of standards and, as a technology leader and development partner, places the highest demands on quality management.

Customers in all industries benefit from this quality management: automotive suppliers and OEM, mechanical engineering, metal processing, mining and exploration, aerospace, energy, construction and transport, agriculture and forestry, as well as the paper, steel, metal, cement, forging and food industries, but also qualified lubricant dealers, car dealerships and workshops.

## MOVING YOUR WORLD

\*Gate-to-Gate Scope includes GHG-Protocol Scope 1, 2 and selected Scope 3 emissions (water, waste, business travel, commuting)

A woman wearing a white lab coat, a white hairnet, and glasses hanging from her neck is smiling while looking at a tablet computer. She is in a food processing facility, with a tray of chocolate bars visible in the foreground. The background shows a clean, industrial environment with shelves and equipment.

***MOVING YOUR WORLD***  
by setting new  
standards in safe food  
lubrication solutions

## Contents

### 6–13

## About FUCHS Food Grade Products

FUCHS – Your One Stop Provider .....	6
Supreme Safety Standards .....	8
Industries Served by FUCHS Food Grade Products .....	10
Guide to Symbols .....	13

### 24–29

## CASSIDA Greases

FULLY SYNTHETIC PRODUCTS

Regular Load .....	26
Extreme Pressure .....	26
Heavy Duty .....	26
Specialties .....	27

### 36–43

## CASSIDA Automatic Lubricators

CASSIDA STAR VARIO .....	38
CASSIDA FLEX .....	41
Remote Installation Accessory Kit .....	43

### 48–51

## Rivolta Cleaners

Solvent-based Cleaners .....	50
Water-based Cleaners .....	51

### 14–23

## CASSIDA Fluids

FULLY SYNTHETIC PRODUCTS

Chain Oils .....	16
Compressor Fluids .....	18
Direct Contact Fluids - Multiple Applications .....	19
Gear Fluids .....	20
Hydraulic Oils .....	21
Vacuum Pump Fluids .....	22
Maintenance Fluids and Specialties .....	22

### 30–35

## CASSIDA FM Range

SEMI-SYNTHETIC AND WHITE-OIL-BASED PRODUCTS

Hydraulic Oils .....	32
Gear Oils .....	32
Specialties .....	33
Greases .....	34
Application Equipment .....	35

### 44–47

## SUPERLA® Food Grade

White Oils .....	46
Pet Jelly .....	46
Liquid Polymer .....	47

### 52–53

## Support & Smart Services

FUCHS Smart Services and LCCP-Survey .....	52
--	----





## ABOUT FUCHS FOOD GRADE PRODUCTS

# FUCHS – Your One Stop Provider

*MOVING YOUR WORLD* forward – to us, this idea is both a commitment to our customers and an obligation to ourselves. Our aim is not only to be the No 1 provider in safe food lubrication solutions but also to actively shape this market with our ideas and innovations. We achieve this on the basis of four pillars:

**1**

Supreme safety standards

**2**

Outstanding technical expertise

**3**

Unconditional reliability

**4**

Your direct way to the solution



# SUPREME safety standards

In the world of food and safe products, the safety of the end consumer is the most important aspect. The requirements in this area are very specific, detailed and complex. The highest possible safety standards are the result of strict compliance with these requirements throughout the entire production and use phase. All certifications and individual approvals require intensive cooperation and partnership with official organisations established for this purpose, such as NSF, EHEDG, BRC, IFS etc. It also requires a deep and comprehensive understanding of

the underlying processes, equipment designs and requirements for food and safe production. Our food grade products embody all this and are the most recognised brands in the world. Depending on their application, all our products are listed in the NSF (National Sanitation Foundation) White Book. And all the important and necessary certifications such as ISO 21469, Kosher and Halal are in place. In short, FUCHS Food Grade products are state-of-the-art lubricants, processing substances, cleaners and degreasers that meet the highest safety standards.

NSF registered  
ISO certified



Kosher certified



Halal certified



Company Member



In Partnership  
with









Our international customers need partners that understand global manufacturing processes. Creating uniform standards at different sites with different situations, e.g. in terms of machinery, raw material availability, legal requirements, etc., is a challenge that extends far into the supply chains. As the world's largest independent global supplier of lubrication solutions, with a large number of production sites around the world, we have mastered this task perfectly. Thanks to our comprehensive and globally available portfolio of food-grade and non-food-grade lubricant solutions, we are able to meet all of our customers' needs and anticipate upcoming ones. This means that they don't have to make detours through fragmented distribution networks. And that is what we mean by being a one-stop provider.



The Food Grade product line of FUCHS offers a comprehensive range of high performance lubricants, process substances, cleaners and degreasers for the food and safe industry. The composition of each product is always optimised to ensure maximum suitability for the respective application. This product catalogue presents our product portfolio and gives an overview of the wide range of Food Grade products. The food experts in the FUCHS team or your local sales partner will be happy to help you find the best products for your application. You will receive individual, competent advice and recommendations for the products best suited to meet your requirements.



#### **Outstanding technical expertise**

FUCHS is setting new standards by understanding our customers as well as our products. Substantial technical know-how, consisting of in-depth application knowledge and a high level of R&D expertise, are the basis of our work. But what are the conditions for this? For us, the key is to really understand the customer on the one hand and our product on the other. We understand the amount of processes involved in industrial food production. A variety of challenges that can be addressed with an even greater variety of solutions in the field of lubrication. Understanding our customer's highly specific requirements and then finding the best way to solve them – that's what it's all about. We commit our global workforce, our experience and our knowledge of all the machines, all the application, all the processes. All in service of a single-minded goal: to always provide our customers with the perfect solution that improves their business.



# Industries served by FUCHS Food Grade Products



**Beverage and  
Brewing**



**Meat and  
Poultry**



**Food  
Packaging**



**Dairy**



**Bakery and  
Confectionary**



**Food  
Logistics**



**Animal feed**



**Edible oil  
processing**



**Pharma  
& Cosmetics**

**... and many more**

# Let's find the direct way to your solution



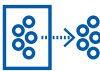






























The most comprehensive  
product portfolio

Wherever you are –  
FUCHS is your one stop partner

**CASSIDA**  
**Rivolta**  
**PARAFLUID**



## 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/assembling/ disassembling aid	Maintenance aid	Worm gears	Linkages, pins
				
Anti-corrosive	NSF registered	Food safety products	Packaging	Direct food contact
				
Coating applications	Guides, rails, and sliders	Forming and necking applications		

## 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'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 researches constantly to increase performance and offer optimum lubricating fluids for maximum safety in Food Grade applications.






## CASSIDA Fluids (fully synthetic)

<b>Chain Oils</b> .....	
CASSIDA CHAIN OIL 150   320 SPRAY   460   1500   1500 SPRAY   5000 SPRAY ..	16
CASSIDA CHAIN OIL LT   LT SPRAY .....	16
CASSIDA CHAIN OIL SP .....	16
CASSIDA CHAIN OIL HTE .....	17
CASSIDA CHAIN OIL XTE .....	17
CASSIDA CHAIN OIL HTX .....	17
CASSIDA CHAIN OIL 150X .....	17
<b>Compressor Fluids</b>	
CASSIDA FLUID CR 32   46   68   100   150 .....	18
CASSIDA FLUID CRE 46 .....	18
CASSIDA FLUID CRF .....	18
CASSIDA FLUID RF 46   68 .....	18
<b>Direct Contact Fluids - Multiple Applications</b>	
CASSIDA FLUID DC 20   32 .....	19
CASSIDA FLUID DCE 10 .....	19
CASSIDA FLUID DCE 15   DCE 15 SPRAY .....	19
<b>Gear Fluids</b>	
CASSIDA FLUID GL 150   220   320   460   680 .....	20
CASSIDA FLUID GLE 150   220 .....	20
CASSIDA FLUID WG 150   220   320   460   680   1000 .....	20
CASSIDA FLUID GLS 220   320   460 .....	21
<b>Hydraulic Oils</b>	
CASSIDA FLUID HF 15   32   46   68   100 .....	21
CASSIDA FLUID HFS 15   32   46   68   100 .....	21
<b>Vacuum Pump Fluids</b>	
CASSIDA FLUID VP 68   100 .....	22
<b>Maintenance Fluids and Specialties</b>	
CASSIDA COMPOUND S .....	22
CASSIDA COMPOUND L .....	22
CASSIDA FLUID PF 22 .....	22
CASSIDA FLUID PF 16 .....	22
CASSIDA FLUID FL 5   FL 5 SPRAY .....	23
CASSIDA SILICONE FLUID   CASSIDA SILICONE FLUID SPRAY .....	23
CASSIDA PTFE DRY SPRAY .....	23
CASSIDA FLUID CP   CASSIDA FLUID CP SPRAY .....	23
CASSIDA COOLANT .....	23

## CHAIN OILS

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


	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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. Highly resistant to fling-off or wash-off. Excellent protection against wear and corrosion.

**Main application:** Lubrication of drive and transport chains in the food industry. Can be applied by brush, via bath, automatic lubrication systems or spraying.

\*after evaporation of solvent

### CASSIDA CHAIN OIL LT | LT Spray


	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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)	
CASSIDA CHAIN OIL 150	150	19	-30 to +140 (upper peak: +150)	

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

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




## CHAIN OILS


### CASSIDA CHAIN OIL HTE

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<b>Main application:</b> Drive and transport chains in the food industry. Also intended for use in equipment for manufacturing food packaging.		


### CASSIDA CHAIN OIL XTE

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<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.		

### CASSIDA CHAIN OIL HTX


	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<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.		

### CASSIDA CHAIN OIL 150X

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA CHAIN OIL 150X	150	19	-30 to +250 (upper peak: +270)	
Fully synthetic high-performance, anti-wear chain oil with solid lubricants to ensure lubrication in extreme conditions.		<b>Main application:</b> Chains subjected to high loads, steam, humid or especially aggressive conditions in the food industry.		

## COMPRESSOR FLUIDS


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

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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-performance, long-life compressor oils. Meet DIN 51506 VBL, VCL, VDL and ISO 6743-3A DAH, DAG, DAJ specifications.

**Main application:** Oil-flooded rotary vane and screw air compressors in food processing plants.


### CASSIDA FLUID CRE 46

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA FLUID CRE 46	46	7.6	-30 to +100 (upper peak: +120)	DIN 51506 VBL, VCL, VDL

Advanced synthetic screw compressor lubricant with extraordinary thermo-oxidative stability. Excellent frictional properties promoting energy reduction, increased purity of plant air through low volatility improving manufactured product integrity, and reduced overall lubricant consumption by offering an industry-leading service life of up to 8000 hours in defined environmental conditions.

**Main application:** Screw and vane compressors, plain and anti-friction bearings and general purpose lubrication including light duty gearboxes.


### CASSIDA FLUID CRF

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA FLUID CRF	43	7.3	-30 to +100 (upper peak: +120)	

Synthetic flushing fluid designed to remove varnish and sludge from compressors that are used in processing plants, including areas where there is a possibility of incidental contact from the compressed air and/or condensate with edible products and ancillaries.

**Main application:** Rotary screw compressors, rotary vane compressors and centrifugal compressors.

### CASSIDA FLUID RF 46 | 68


	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.

**Main application:** 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).

## DIRECT CONTACT FLUIDS - MULTIPLE APPLICATIONS


### CASSIDA FLUID DC 20 | 32

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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 and promote long service life.

**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 10

	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA FLUID DCE 10	22	10	-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:** Multipurpose fluid to be used as forming oil for the manufacture of both two- and three-piece cans for food and beverages (stamping, deep-drawing, and bending), as release agent in several applications, synthetic fibbers manufacture, artificial and collagen casing manufacture, and as absorber fluid for edible oil extraction plant solvent recovery system.

### CASSIDA FLUID DCE 15 | CASSIDA FLUID DCE 15 Spray

	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /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



## GEAR FLUIDS





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

  	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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-performance, long-life, anti-wear gear oils. Meet DIN 51517 CLP and ISO 6743/6 specifications.

**Main application:** Suitable for gearboxes on food handling and processing equipment. May also be used for general machine lubrication, for example, on chains.




### CASSIDA FLUID GLE 150 | 220

   	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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 150 | 220 | 320 | 460 | 680 | 1000


  	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA FLUID WG 150	150	128	-35 to +150	DIN 51517 CLP
CASSIDA FLUID WG 220	220	61	-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.

## GEAR FLUIDS

### CASSIDA FLUID GLS 220 | 320 | 460


	Viscosity at 40°C [mm²/s]	Viscosity at 100°C [mm²/s]	Temperature range [°C]	Specifications
CASSIDA FLUID GLS 220	220	30.3	-40 to +140 (upper peak: +150)	DIN 51517 CLP
CASSIDA FLUID GLS 320	320	41.0	-35 to +140 (upper peak: +150)	DIN 51517 CLP
CASSIDA FLUID GLS 460	460	55.8	-35 to +140 (upper peak: +150)	DIN 51517 CLP

Fully synthetic food grade gear oil based on new mPAO technology with very high performance based on latest base oil and additive technology, high micro pitting resistance.

**Main application:** Lubrication of enclosed gearboxes and worm gears. May also be used for general machine lubrication, for example, on chains, bearings and dynamic loaded seals.

## HYDRAULIC OILS


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

	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
CASSIDA FLUID HFS 15	15	4	-62 to +100 (upper peak: +120)	DIN 51524 HLP
CASSIDA FLUID HFS 32	32	6	-60 to +140 (upper peak: +150)	DIN 51524 HLP, HVLP DIN 51517 CLP
CASSIDA FLUID HFS 46	46	8	-60 to +140 (upper peak: +150)	DIN 51524 HLP, HVLP DIN 51517 CLP
CASSIDA FLUID HFS 68	68	11	-50 to +140 (upper peak: +150)	DIN 51524 HLP, HVLP DIN 51517 CLP
CASSIDA FLUID HFS 100	100	15	-45 to +140 (upper peak: +150)	DIN 51524 HLP, HVLP DIN 51517 CLP

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




  	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<b>Main application:</b> Vacuum pumps producing a medium vacuum, used in the food and beverage processing and packing industry.		

## MAINTENANCE FLUIDS and SPECIALTIES




### CASSIDA COMPOUND S

  	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA COMPOUND S	-	-	-10 to +130 (upper peak: +140)	
Synthetic water-based lubricating paste, with high film strength and excellent wetting quality for the manufacturing of packaging for safe and food use.		<b>Main application:</b> Pressing, extrusion and forming lubricant in the manufacture of containers in the food and beverage industries. It can also be used as non-stick coating of foils and metal food-packaging.		




### CASSIDA COMPOUND L

  	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA COMPOUND L	-	-	-5 to +45	
Synthetic water-based lubricating paste, with high film strength and excellent wetting quality for the manufacturing of packaging for safe and food use.		<b>Main application:</b> Pressing, extrusion and forming lubricant in the manufacture of containers in the food and beverage industries. It can also be used as non-stick coating of foils and metal food-packaging.		

### CASSIDA FLUID PF 22

  	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA FLUID PF 22	-	22		
Synthetic fluid for the manufacture of packaging for the food industry.		<b>Main application:</b> Manipulation of the synthetic fibers and its weaving process for the manufacture of mesh bags for food products.		


### CASSIDA FM FLUID PF 16

  	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /s]	Temperature range [°C]	Specifications
CASSIDA FM FLUID PF 16	-	16		
Fluid for the manufacture of packaging for the food industry.		<b>Main application:</b> manipulation of the synthetic fibers and its weaving process for the manufacture of mesh bags for food products		




## MAINTENANCE FLUIDS and SPECIALTIES

### CASSIDA FLUID FL 5 | FL 5 Spray


	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /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	
Synthetic water-based lubricating fluid, with high film strength and excellent wetting quality for the manufacturing of packaging for safe and food use.		<b>Main application:</b> Pressing, extrusion and forming lubricant in the manufacture of containers in the food and beverage industries.		

### CASSIDA SILICONE FLUID | CASSIDA SILICONE FLUID Spray

	Viscosity at 25°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /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-		<b>Main application:</b> 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

	Viscosity at 20°C [mm <sup>2</sup> /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.		<b>Main application:</b> 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

### CASSIDA FLUID CP | CASSIDA FLUID CP Spray

	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /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 components.		<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.		

\* including solvent \*\* without propellant, including solvent

### CASSIDA COOLANT

	Viscosity at 20°C [mm <sup>2</sup> /s]	Viscosity at 40°C [mm <sup>2</sup> /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 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.		<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.		

## 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 ..... 26

---

### Extreme Pressure

CASSIDA GREASE EPS 00 | 1 | 2 ..... 26

---

### Heavy Duty

CASSIDA GREASE HDS 00 | 2 ..... 26

---

### Specialties

CASSIDA GREASE GTS 2 | GTS SPRAY ..... 27

CASSIDA GREASE GTM 2 ..... 27

CASSIDA GREASE GTX 0 | 2 ..... 27

CASSIDA GREASE HTS 2 ..... 27

CASSIDA GREASE LTS 1 ..... 28

CASSIDA GREASE P 1 ..... 28

CASSIDA GREASE CLEAR 2 ..... 28

CASSIDA GREASE MD 2 ..... 28

CASSIDA GREASE DCE 2 ..... 28

CASSIDA GREASE FC 1 | 2 ..... 29

CASSIDA PASTE AP ..... 29





HD GREASE GUN CASSIDA ..... 29

---



## REGULAR LOAD

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




	Thickener	Viscosity at 40°C [mm²/s]	Viscosity at 100°C [mm²/s]	Temperature range [°C]	NLGI-Grade	Color Code*
CASSIDA GREASE RLS 000	AICx	100	13	-50 to +100 (upper peak: +120)	<000	
CASSIDA GREASE RLS 00	AICx	100	13	-45 to +100 (upper peak: +120)	00	
CASSIDA GREASE RLS 0	AICx	150	18	-40 to +100 (upper peak: +120)	0	
CASSIDA GREASE RLS 1	AICx	150	18	-40 to +120 (upper peak: +140)	1	
CASSIDA GREASE RLS 2	AICx	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 particularly recommended for centralised lube systems or other similar systems where an NLGI 2 grease may be difficult to dispense.

## EXTREME PRESSURE

### CASSIDA GREASE EPS 00 | 1 | 2



	Thickener	Viscosity at 40°C [mm²/s]	Viscosity at 100°C [mm²/s]	Temperature range [°C]	NLGI-Grade	Color Code*
CASSIDA GREASE EPS 00	AICx	220	25	-45 to +100 (upper peak: +120)	00	
CASSIDA GREASE EPS 1	AICx	220	25	-40 to +120 (upper peak: +140)	1	
CASSIDA GREASE EPS 2	AICx	220	25	-35 to +120 (upper peak: +140)	2	

High-performance, extreme-pressure aluminium complex greases with synthetic base fluid.

**Main application:** 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.

## HEAVY DUTY

### CASSIDA GREASE HDS 00 | 2




	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.

**Main application:** 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.

## 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.

**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 GTM 2

	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	

Speciality synthetic extreme-pressure grease for food and beverage processing equipment.

**Main application:** For use on bearings of electric motors, pumps, conveyors, mixers and robotic applications.



## 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.

**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



	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.

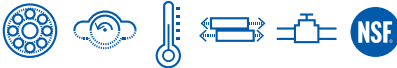
**Main application:** Suitable for applications on food manufacturing equipment where high temperatures (peak 220°C) may be experienced.

## SPECIALTIES



## CASSIDA GREASE LTS 1

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /s]	Temperature range [°C]	NLGI-Grade	Color Code*
CASSIDA GREASE LTS 1	AICx	20	4.5	-50 to +100 (upper peak: +110)	1	
High-performance aluminium complex grease with low-viscosity synthetic base fluid.		<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.				



## CASSIDA GREASE P 1

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<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.				

## CASSIDA GREASE CLEAR 2

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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).		<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.				

## CASSIDA GREASE MD 2

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<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.				



## CASSIDA GREASE DCE 2

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /s]	Temperature range [°C]	NLGI-Grade	Color Code*
CASSIDA GREASE DCE 2	Inorganic	100	13	-10 to +110 (upper peak: +120)	2	
Synthetic food contact grease designed for a number of special applications in the food manufacturing industry. Suitable for both direct and incidental food contact applications.		<b>Main application:</b> Ideal for use as a direct food contact release agent. 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 guides, bearings and blades operating in food, pharmaceutical and other clean environments where direct food contact is inevitable.				



## SPECIALTIES

### CASSIDA GREASE FC 1 | 2


	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.

### 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





## 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 | CASSIDA FM GREASE DC 2 SPRAY ..... 34


CASSIDA FM GREASE EP 1.5 ..... 34

CASSIDA FM GREASE HD 1.5 | 2 ..... 35

---

## HYDRAULIC OILS

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


	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.

**Main application:** Suitable for can seamer gearboxes on food handling and processing equipment. May also be used for general machine lubrication.

### CASSIDA FM GEAR OIL 220 | 460

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.



## SPECIALTIES





## CASSIDA FM FLUID DC 20 | 68

 	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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

   	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.

**Main application:** For use in the centralised systems of rotary cookers and sterilisers which lubricate the can exchange valves and other moving components.




## CASSIDA FM FLUSHING FLUID 32

 	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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


  	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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 promote long service life.

**Main application:** 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.




## SPECIALTIES

## CASSIDA FM SUGAR DISSOLVING FLUID

	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<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.		



## GREASES

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

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<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.				




\*without propellant

## CASSIDA FM GREASE EP 1.5

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /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.		<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.				

## GREASES

## CASSIDA FM GREASE HD 1.5 | 2

	Thickener	Viscosity at 40°C [mm <sup>2</sup> /s]	Viscosity at 100°C [mm <sup>2</sup> /s]	Temperature range [°C]	NLGI- Grade	Color Code*
CASSIDA FM GREASE HD 1.5	AlC <sub>x</sub> mod.	550	38	-10 to +140 (upper peak: +150)	1.5	
CASSIDA FM GREASE HD 2	AlC <sub>x</sub> 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.



## CASSIDA Automatic Lubricators

Consider automatic lubrication and single point lubricators as an easy place to start when trying to improve your plant's reliability programme. A single point automatic lubricator filled with the correct lubricants will help to avoid costly manual lubrication. They literally pay for themselves through a reduction in maintenance and labour costs, while at the same time increasing the safety of your operation. Benefits include reduced workplace hazards, precise lubricant delivery, improved machine reliability/availability, increased man-hour availability, increased safety with installation in hard-to-reach areas, prevention of lubricant mixing, contamination, dust and moisture ingress with hermetically sealed lubrication points.



## CASSIDA Automatic Lubricators

---

CASSIDA STAR VARIO .....	38
CASSIDA FLEX .....	41
REMOTE INSTALLATION ACCESSORY KIT .....	43

---



# CASSIDA

## Automatic lubricators

CASSIDA automatic lubricators are devices that can be programmed to automatically deliver lubricant (food-grade grease or oil). In most cases, the equipment can continue to run while the lubricant is being applied, which reduces downtime.

Automatic lubricators optimize lubricant consumption, resulting in economic and long-term maintenance savings. They also eliminate the costly and sometimes hazardous task of manually applying precise amounts of lubricant to numerous sites on the equipment at regular time intervals while it is running.

Hygienic design guidelines are also improved by using automatic lubricators, as they provide a means of achieving clean lubrication, preventing any leaks and spills that may contaminate production. Automated lubrication provides constant protection against contamination through the lubrication points by preventing the ingress of water, dirt and dust, thereby extending the service life of the equipment.

In short, automatic lubricators simplify equipment lubrication and provide a level of consistency that results in many important benefits, including:

- Reduced maintenance costs
- Increased labour efficiency and labour cost savings
- Increased safety for personnel in maintenance tasks
- Reduced equipment downtime
- Longer equipment service life
- Guaranteed optimum and consistent lubrication
- Increased reliability by eliminating human error in manual lubrication
- Improved hygienic design and food safety by minimising residual lubricant

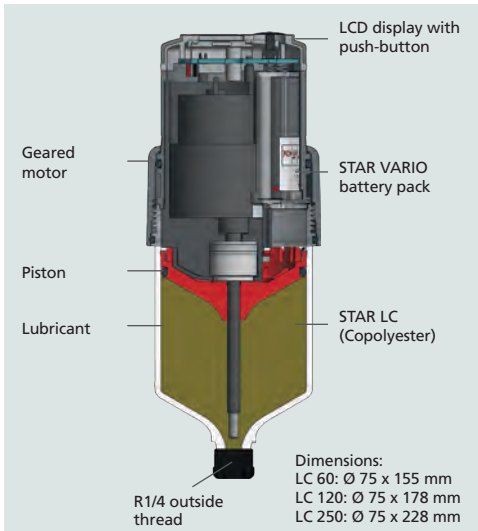

To achieve all these benefits, FUCHS offers its customers the full range of CASSIDA food-grade lubricants supplied in STAR VARIO and FLEX automatic lubricators.

## CASSIDA STAR VARIO




CASSIDA STAR VARIO operates fully automatically with a high-precision discharge, regardless of temperature or back pressure. The system consists of an electromechanical drive, a lubricant cartridge (LC) with a capacity of 60 cm<sup>3</sup>, 120 cm<sup>3</sup> or 250 cm<sup>3</sup> and a battery pack. The desired discharge time and LC size are easily selected using the push button and are instantly shown on the LCD display. The current operating status is shown by a LED light (green/red), which is always visible even from a distance, as well as on the LCD display.



## Technical data

<p><b>Drive - reusable</b></p> <p><b>Electromechanical with STAR VARIO battery pack</b></p> <p><b>Discharge time</b> 1, 2, 3... 12 Months</p> <p><b>Lubricant capacity</b> 60 cm<sup>3</sup>, 120 cm<sup>3</sup> o 250 cm<sup>3</sup></p> <p><b>Application temperature</b> -20 °C to +60 °C</p> <p><b>Operating pressure</b> 6 bar</p> <p><b>Protection class</b> IP 65</p> <p><b>Lubricant up to NLGI 2 / oil</b> <b>Grease up to NLGI 2 / oil</b></p>		
--	---	--

## Product features and benefits

	<p><b>Push-button LCD display</b> shows discharge time, LC size and operating status</p> <p><b>Setting: 1, 2, 3... 12 months</b> and LC size</p>	<ul style="list-style-type: none"> <li>• Easy and user-friendly operation</li> <li>• Precise setting to suit requirements, preventing under- or over-lubrication</li> <li>• Settings can be changed at any time</li> <li>• Can be switched off in the event of an extended system shutdown</li> </ul>
	<p><b>Reusable electromechanical drive with battery pack</b></p> <p><b>Always visible LED light (green/red)</b> shows operating and fault status</p>	<ul style="list-style-type: none"> <li>• Reliable and precise lubrication, regardless of temperature and back pressure</li> <li>• One-time purchase cost for STAR VARIO Drive</li> <li>• The LED light provides a quick operating status check, saving time and making maintenance easier</li> </ul>
	<p><b>The 6-bar operating pressure enables installation at a distance of up to 5 m</b></p> <p><b>Additional manual discharge at the push of a button (purge)</b></p>	<ul style="list-style-type: none"> <li>• Installation outside hazard areas or in easily accessible areas increases safety at work</li> <li>• Increased system availability, as changing the LC can be carried out smoothly while the machines are running</li> <li>• If necessary, the lubrication point can be purged to clear blockages</li> </ul>

The various lubricator accessories can be ordered separately according to your needs.

## STAR VARIO accessories



### STAR VARIO DRIVE

**Description:** Geared motor.  
5-year service life

**Items included:**  
STAR VARIO DRIVE (motor)

**Sales format:** Box of 10 units



### STAR SUPPORT FLANGE

**Description:** Lubricator support for the first installation. 5-year service life

**Items included:** Support flange

**Sales format:** Box of 10 units



### STAR VARIO BATTERY

**Description:** Battery pack for system power supply. To be changed with each lubricant cartridge (LC) replacement

**Items included:** CASSIDA STAR VARIO Batteries

**Sales format:** Box of 10 pack of 3 batteries

## CASSIDA Cartridges



### CASSIDA STAR LC 60

**Description:** 60 cm<sup>3</sup> replacement Lubricant Cartridge (LC)

**Items included:** STAR LC 60

**Sales format:** Box of 10 units



### CASSIDA STAR LC 120

**Description:** 120 cm<sup>3</sup> replacement Lubricant Cartridge (LC)

**Items included:** STAR LC 120

**Sales format:** Box of 10 units



### CASSIDA STAR LC 250

**Description:** 250 cm<sup>3</sup> replacement Lubricant Cartridge (LC)

**Items included:** STAR LC 250

**Sales format:** Box of 10 units



## CASSIDA FLEX

CASSIDA FLEX is a compact, ready-to-use lubrication system supplied as a complete unit. It can be used in a wide range of applications at temperatures between -20 °C and +60 °C. The discharge time is freely selectable between 1 and 12 months.

The required pressure is produced by means of an electronically controlled chemical reaction. Fresh lubricant is continuously supplied to the lubrication point during the selected discharge time. CASSIDA FLEX is available in 60 cm<sup>3</sup> and 125 cm<sup>3</sup> sizes.



## Technical Information

### Operation

**Electrochemical reaction. Gas production.**

Discharge time at +20 °C /  
Perma multi-purpose grease SF01  
**1, 2, 3... 12 Months**

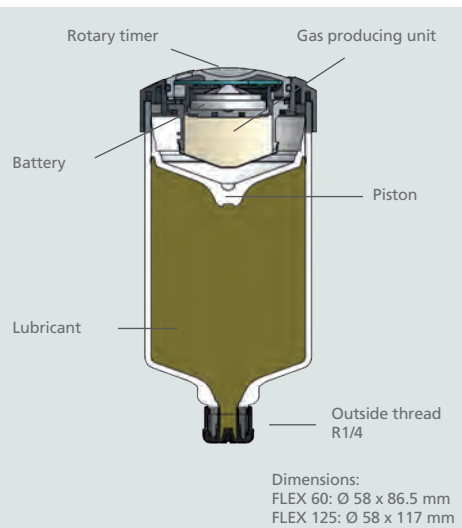
Lubricant capacity  
**60 cm<sup>3</sup> or 125 cm<sup>3</sup>**

Application temperature  
**-20 °C to +60 °C**

Operating pressure  
**Max. 5 bar**

Protection class  
**IP 68**

Special and standard lubricants  
**Grease up to NLGI 2 / oil**



### Discharge time setting in months:

Guideline values  
for draining without  
back pressure using  
NLGI 2 lubricant.

Lubricant residue  
may be left behind  
at temperatures  
> +40 °C and  
discharge times  
> 6 months



	1	2	6	9	12
at -20 °C	2	5	10	13	15
at 0 °C	1.3	3.8	7.2	11	13
at +20 °C	1	3	6	9	12
at +40 °C	0.8	2.5	5.2	7.5	10
at +60 °C	0.6	2	4	-	-

## Product features and benefits



**All-in-one system with rotary timer for adjusting the discharge time:**

1, 2, 3... 12 Months

- The system is supplied fully assembled and is ready for immediate use
- Easily set and switched on using the dial
- Discharge time can be set in monthly intervals from 1 to 12



**The system operates reliably between -20 °C and +60 °C**

- Suitable for use across a wide temperature range
- Can be used outdoors all year round



**EX Certified  
FM Approved  
P 68**

- Safe and constant lubrication in explosion hazard areas
- Can be used in high-humidity or dusty environments
- Increased safety at work

## CASSIDA Automatic Lubricators



### CASSIDA FLEX 60

**Description:** 60 cm<sup>3</sup> automatic lubrication system

**Items included:** CASSIDA FLEX 60

**Sales format:** Box of 10 units



### CASSIDA FLEX 125

**Description:** 125 cm<sup>3</sup> automatic lubrication system

**Items included:** CASSIDA FLEX 125

**Sales format:** Box of 10 units

## Remote Installation Accessory Kit

Although preference should be given to installing the automatic lubricators directly, it is often necessary to install them at a distance to reduce the lubricant pressure on the lubrication point as much as possible. This is particularly the case at lubrication points subject to high temperatures (> 60 °C), or where the lubrication point is inaccessible or poses a high risk of injury (vibrations, impacts, cutting, etc.).









The following accessories are required to install CASSIDA automatic lubricators at a distance from the lubrication point. To ensure their proper operating pressures, the STAR VARIO system should be installed at no more than 5 m and the FLEX system at no more than 2 m.

### OIL LUBRICATOR INSTALLATION KIT

**Description:** Remote installation accessory kit for the automatic oil-filled lubricator (CASSIDA STAR LC or CASSIDA FLEX)

**Items included:** 8 accessories and replacement parts

**Sales format:** Box with accessory kit









Item name	Quantity	Picture
STAR G1/4 mounting bracket (stainless steel)	1 pc	
65 mm beam clamp (stainless steel)	1 pc	
Straight G1/4" connector for 8 mm OD, 6 mm ID tubing (nickel-plated brass)	2 pcs	
8 mm OD tubing for temperatures between -40 °C and +80 °C (PA)	3 m	
G1/4 male x G1/4 female 90° elbow (brass)	1 pc	
Oil retaining valve G1/4 male x G1/4 female up to +60 °C (brass with plastic valve)	2 pcs	
Bracket (stainless steel)	1 pc	
Oil brush Ø20 mm G1/4	1 pc	

### GREASE LUBRICATOR INSTALLATION KIT

**Description:** Remote installation accessory kit for the automatic grease-filled lubricator (CASSIDA STAR LC or CASSIDA FLEX)

**Items included:** 8 accessories and replacement parts

**Sales format:** Box with accessory kit

Item name	Quantity	Picture
STAR G1/4 mounting bracket (stainless steel)	1 pc	
65 mm beam clamp (stainless steel)	1 pc	
Straight G1/4" connector for 8 mm OD, 6 mm ID tubing (nickel-plated brass)	2 pcs	
8 mm OD tubing for temperatures between -40 °C and +80 °C (PA)	3 m	
G1/4 male x G1/4 female 90° elbow (brass)	1 pc	
G1/8 male x G1/4 female reducer (brass)	1 pc	
M8x1 male x G1/4 female reducer (brass)	1 pc	
M10x1 male x G1/4 female reducer (brass)	1 pc	

## SUPERLA® Food Grade

### Valuable processing aids for the food industry

Our customers in the food industry have high expectations and they can count on us to deliver:

- Consistently high-grade products of the very purest quality
- Reliable fulfilment of regulatory requirements
- A variety of different packaging sizes
- A fast completely smooth supply chain

And that is exactly what we do! We ensure consistent product quality: The purity of the SUPERLA® products is why they are already widely used by many customers in the food industry. Our goods fulfil and even partially surpass the requirements set out in strict directives. We offer a unique combination of unbeatable service and the best processing aids for the production of food and its packaging, including white oils, petroleum jellies and oils that are approved as food additives.



## SUPERLA® Food Grade

---

### White Oils

SUPERLA® 40 | 70 | 90 | 190 | 240 | 350 ..... 46

---

### Petroleum Jelly

SUPERLA® PJ 2000 ..... 46

---







### Liquid Polymer

SUPERLA® LIQUID POLYMER 1800..... 47

---

## WHITE OILS

### SUPERLA® FOOD GRADE WHITE OILS







     	Colour Saybolt	Viscosity at 40°C [mm <sup>2</sup> /s]	Density at 15°C [g/cm <sup>3</sup> ]	Specifications
SUPERLA® 40	+30	15	0.849	NSF H1, HX-1, 3H FDA 178.3620 (a) FDA 172.878
SUPERLA® 70	+30	23	0.853	NSF H1, HX-1, 3H FDA 178.3620 (a) FDA 172.878
SUPERLA® 90	+30	36	0.861	NSF H1, HX-1, 3H FDA 178.3620 (a) FDA 172.878
SUPERLA® 190	+30	46	0.863	NSF H1, HX-1, 3H FDA 178.3620 (a) FDA 172.878
SUPERLA® 240	+30	69	0.868	NSF H1, HX-1, 3H FDA 178.3620 (a), FDA 172.878 EU-Plastics directive 10/2011
SUPERLA® 350	+30	101	0.872	NSF H1, HX-1, 3H FDA 178.3620 (a), FDA 172.878 EU-Plastics directive 10/2011

SUPERLA® food grade white oils are colourless, odourless and tasteless oils. The mixtures of saturated paraffinic and naphthenic hydrocarbons span a wide viscosity range. They are clear, bright and free of solids. These chemically nearly inert oils are virtually free of nitrogen, sulphur, oxygen and aromatic compounds.

**Main application:** Dust-binders in cereals processing, Defoaming agents, Release agents in bakeries, Coatings for sausage casings, Fruit coatings, Plasticisers in plastic packaging materials. They are also ideally suited as processing aids for: Production of - edible oils, - wine corks, - beverage and animal feed cans, - food trays and meat processing.

## PETROLEUM JELLY

### SUPERLA® FOOD GRADE PETROLEUM JELLY

     	Colour Lovibond	Viscosity at 100°C [mm <sup>2</sup> /s]	Cone penetration 1/10mm at 25°C	Specifications
SUPERLA® PJ 2000	0.5	13	170	NSF H1, HX-1, 3H, Regulation No. (EU) 10/2011, FDA 172.880 (Petrolatum for direct addition to food for human consumption)

SUPERLA® PJ 2000 is a petroleum jelly of unique composition. With highest quality white mineral oils and microcrystalline waxes being chosen as raw materials for this grade, it not only meets the requirements of Regulation (EU) 10/2011, but also complies to various recommendations from the German Federal Institute for Risk Assessment (BfR).

**Main application:** Release agent, metal can forming, aluminum coating, food tray manufacturing, surface protection, assembly aid

**LIQUID POLYMER****SUPERLA® FOOD GRADE SYNTHETIC OIL**

NSF		Colour Saybolt	Viscosity at 40°C [mm <sup>2</sup> /s]	Density at 15°C [g/cm <sup>3</sup> ]	Specifications
SUPERLA® Liquid Polymer 1800		+30	31	0.825	(EC) No. 1333 / 2008, hydrogenated poly-1-decene (E907)
<p>SUPERLA® Liquid Polymer 1800 is a mixture of synthetically produced iso-paraffins. This product is pure, inert, colourless and odourless. It is permitted under the denomination »hydrogenated poly-1-decene« as a food additive (E907) according to Commission Regulation (EC) No. 1333 / 2008. Due to its properties it is a superior alternative to mineral and vegetable oils used in the food producing industry. SUPERLA® Liquid Polymer 1800 is thermally and UV stable.</p>		<p><b>Main application:</b> Defoaming agent, release agent in bakeries, coating for sausage casings, production of edible oils (hexane recovery), wine corks, beverage and animal feed cans, food trays and meat processing</p>			

## Rivolta Cleaners

Soiled machine parts, systems and surfaces are not only visually annoying, they can also bring the entire work process to a halt. Within the food, beverage and pharmaceutical industry special certified cleaners are required to properly clean various materials in a wide variety of circumstances. For these jobs Rivolta provides solvent-based or water-based cleaning agents with NSF registration.



## Rivolta Cleaners

---

### Solvent-based Cleaners

Rivolta N.I.T. ....	50
Rivolta S.B.C. Spray .....	50
Rivolta S.L.X. Rapid Spray .....	50


### Water-based Cleaners

Rivolta B.F.C. Spray.....	51
Rivolta B.W.K.....	51
Rivolta B.W.R. 180 .....	51

---

## SOLVENT-BASED CLEANERS


### Rivolta N.I.T.

	Density at 15°C [g/cm³]	Flash Point	Specifications
Rivolta N.I.T.	0.84	> +60°C	NSF A1

Rivolta N.I.T. is a user-friendly cleaner for the removal of stubborn impurities, which are difficult to remove like residues of dispersion adhesives and hotmelts. Due to its innovative chemical composition, N.I.T. is NSF-A1 listed and therefore suitable for cleaning tasks in particularly sensitive areas, e.g. in the food and pharmaceutical industries

**Available in:** 500ml spray bottle (PU 6 pcs.), 10l can


### Rivolta S.B.C. Spray

	Density at 15°C [g/cm³]	Evaporation Rate	Specifications
Rivolta S.B.C. Spray	0.82	15	NSF A1

Rivolta S.B.C. Spray is a cleaning agent that evaporates quickly and without leaving residues. S.B.C. Spray is based on a combination of highly effective substances, each of which can remove various types of soiling, e.g. grease, oil, adhesive, paint and sealant residues. The evaporation rate and the spray rate of S.B.C. Spray are precisely matched to the required exposure time or product quantity. This means that with S.B.C. Spray an exact dosage and thus an economical mode of operation is possible. S.B.C. Spray is NSF-A1 registered and suitable for cleaning applications in the food, beverage and pharmaceutical industries.

**Available in:** 500ml spray can (PU 12 pcs.)

### Rivolta S.L.X. Rapid Spray


	Density at 15°C [g/cm³]	Evaporation Rate	Specifications
Rivolta S.L.X. Rapid Spray	0.77	7	NSF K1 / K2

Rivolta S.L.X. Rapid Spray is especially designed for the rapid and effective cleaning of machine parts in the food, pharmaceutical and feed industry. It excels in its rapid complete evaporation without any residues and by its excellent material compatibility. The product can be used on solvent-resistant paints, plastics, elastomers and metals of all kinds. In addition to this S.L.X. Rapid Spray is suitable for the rapid cleaning of electric and electronic components in all industrial fields.


**Available in:** 400ml spray can (PU 12 pcs.)

## WATER-BASED CLEANERS


### Rivolta B.F.C. Spray

	Density at 15°C [g/cm³]	pH-Value at 15°C	Specifications
Rivolta B.F.C. Spray	0.98	8.5	NSF A1
<p>Rivolta B.F.C. Spray is a universal active foam for cleaning and degreasing of water-resistant surfaces from slightly oily and greasy contaminations, soot and dust, nicotine, fingerprints and many more. The active foam is odourless and perfectly adhesive. It does not drip or run off and therefore is especially suitable for the use at vertical surfaces that with S.B.C. Spray an exact dosage and thus an economical mode of operation is possible. S.B.C. Spray is NSF-A1 registered and suitable for cleaning applications in the food, beverage and pharmaceutical industries.</p> <p><b>Available in:</b> 400 ml spray can (PU 12 pcs.)</p>			

### Rivolta B.W.K.

	Density at 15°C [g/cm³]	pH-Value at 15°C	Specifications
Rivolta B.W.K.	1.02	10.6	NSF A1
<p>Rivolta B.W.K. is a ready-to-use cleaning agent to remove persistent dirt from water resistant surfaces. Our product is solvent-free and based on a combination of highly effective and modern substances. B.W.K. distinguishes itself by its good solvent characteristics for lubricants and pastes, oils, wax and bitumen residues and processing fluids that are difficult to remove.</p> <p><b>Available in:</b> 750 ml spray bottle ( PU 10 pcs.), 10 l can, 200 kg drum</p>			

### Rivolta B.W.R. 180

	Density at 15°C [g/cm³]	pH-Value at 15°C	Specifications
Rivolta B.W.R. 180	1.1	10.6	NSF A1
<p>Rivolta B.W.R. 180 is a cleaning agent. It was especially developed for the universal use in those industrial areas where particularly high requirements are placed on the user friendliness as well as on the technical performance of the cleaning medium. B.W.R. 180 is characterized by an excellent wet effect. By the surface activity resulting from this an extensive wetting of contaminations is achieved and thus their removal also at inaccessible places and out of hollows. Its active substances dissolve oily, fatty and dusty contaminations from plastics, metals, glass, lacquered surfaces etc. B.W.R. 180 can be processed in plunging, spraying and rinsing procedures and is very well suitable for steam jet cleaners, ultrasonic cleaning systems and hot-water high pressure devices. B.W.R. 180 is exclusively available as concentrate. The application concentration depends on the cleaning procedure, the temperature and the degree of contamination of the parts that are to be cleaned.</p> <p><b>Available in:</b> cans (11 kg and 20 kg), 220 kg drum</p>			

# FUCHS Smart Services

## MOVING YOUR WORLD

by pushing forward together

At FUCHS, **MOVING YOUR WORLD** means to constantly push forward. To strive for novel solutions that not only keep your machines running today, but unfold the potentials of tomorrow. A goal we achieve with tailored approaches and individually designed concepts that utilise the full range of our extensive FUCHS Smart Services portfolio. Whether it's digital technologies that monitor the condition of machines or on-site teams that lighten your workload – together, we never stop pushing forward together.



### Understand

Assess and Analyze



### Develop

Plan and Set-Up



### Manage

Implement and Operate



### Optimize

Finetune and Reuse

Our goal: Perfect, sustainable lubrication at all times. Everything starts with the selection of the right lubricant for the specific application and continues with keeping it and the production equipment in perfect condition. Both aspects lead to a significant reduction of your total cost of ownership.



# LCCP Survey

Lubrication Critical Control Point (LCCP) is a tool for the evaluation of lubrication hazards and improvements that can have an impact on safety processes, machine/process performance and savings in maintenance and energy costs. This approach is based on the Hazard Analysis and Critical Control Points (HACCP), a systematic preventive process to ensure food safety in a logical and objective way, in this case with a focus on lubrication points and their respective cleaning/degreasing.

Costly product recalls, brand damage for the product manufacturer and even legal action by the end user can result from using the wrong lubricants. It can also be the cause of maintenance and energy overruns.

FUCHS, as your lubrication supplier, will send experts to your site to conduct an LCCP survey and help you prepare your lubrication program to develop and meet the lubrication portion of a safety plan.



## Right & Safe products

Proper use of lubricants, degreasers, and cleaners, e.g. NSF listed, ISO 21469 certified manufacturing plants, etc.



## Savings

Reduce references and consumption by switching to less expensive products. Assistance with lubricant optimisation and/or consolidation. Improvement of the energy savings.



## Longer lifetime

Protect and extend the life of the machinery and equipment in which they are used by updating and selecting products with superior mechanical performance.



## Optimized methods

Review current lubrication methods/practices and suggest ways to improve, e.g., automatic lubrication, colour codes, QRcodes, etc.



## Handling guidance

Guidance on storage, use and disposal of lubricants.



## Customized training

Tailor-made courses for maintenance personnel to establish criteria for the correct selection of lubricants, food safety and reducing the cost of lubrication.



The information contained in this product information is based on the experience and know-how of FUCHS LUBRICANTS GERMANY 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 LUBRICANTS GERMANY 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.

Any form of reproduction requires express prior written permission from FUCHS LUBRICANTS GERMANY.

## 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 employees will be glad to advise on products for the application in question and also on our full range of lubricants.

Contact:



**FUCHS LUBRICANTS GERMANY GmbH**  
Friesenheimer Straße 19  
68169 Mannheim/Germany  
Phone +49 621 3701-0  
Fax +49 621 3701-7000  
E-mail [zentrale-flg@fuchs.com](mailto:zentrale-flg@fuchs.com)  
[www.fuchs.com/de/en](http://www.fuchs.com/de/en)

Export Division  
Friesenheimer Straße 19  
68169 Mannheim/Germany  
Phone +49 621 3701-1703  
Fax +49 621 3701-7719  
E-mail [export-flg@fuchs.com](mailto:export-flg@fuchs.com)  
[www.fuchs.com/de/en](http://www.fuchs.com/de/en)