**FUCHS** Special Applications

# Product Range
# **Food Grade Products**

*MOVING YOUR WORLD*

LUBRICANTS.
TECHNOLOGY.
PEOPLE.
FUCHS

## FUCHS LUBRICANTS CO.

We do not just develop lubricants. We develop intelligent solutions for highly complex challenges.

Our goal: to keep our customers' world in motion. Efficient, sustainable, reliable.
Today and tomorrow.

What can we move for you?

# FUCHS LUBRICANTS CO.

## Facts and figures

**COMPANY:**

FUCHS LUBRICANTS COMPANY, Harvey, IL, USA
FUCHS LUBRICANTS CANADA LTD., Langley BC and Cambridge ON, Canada
LUBRICANTES FUCHS DE MEXICO SA DE CV
Querétaro, Qro., Mexico

**NORTH AMERICAN PLANT LOCATIONS:**

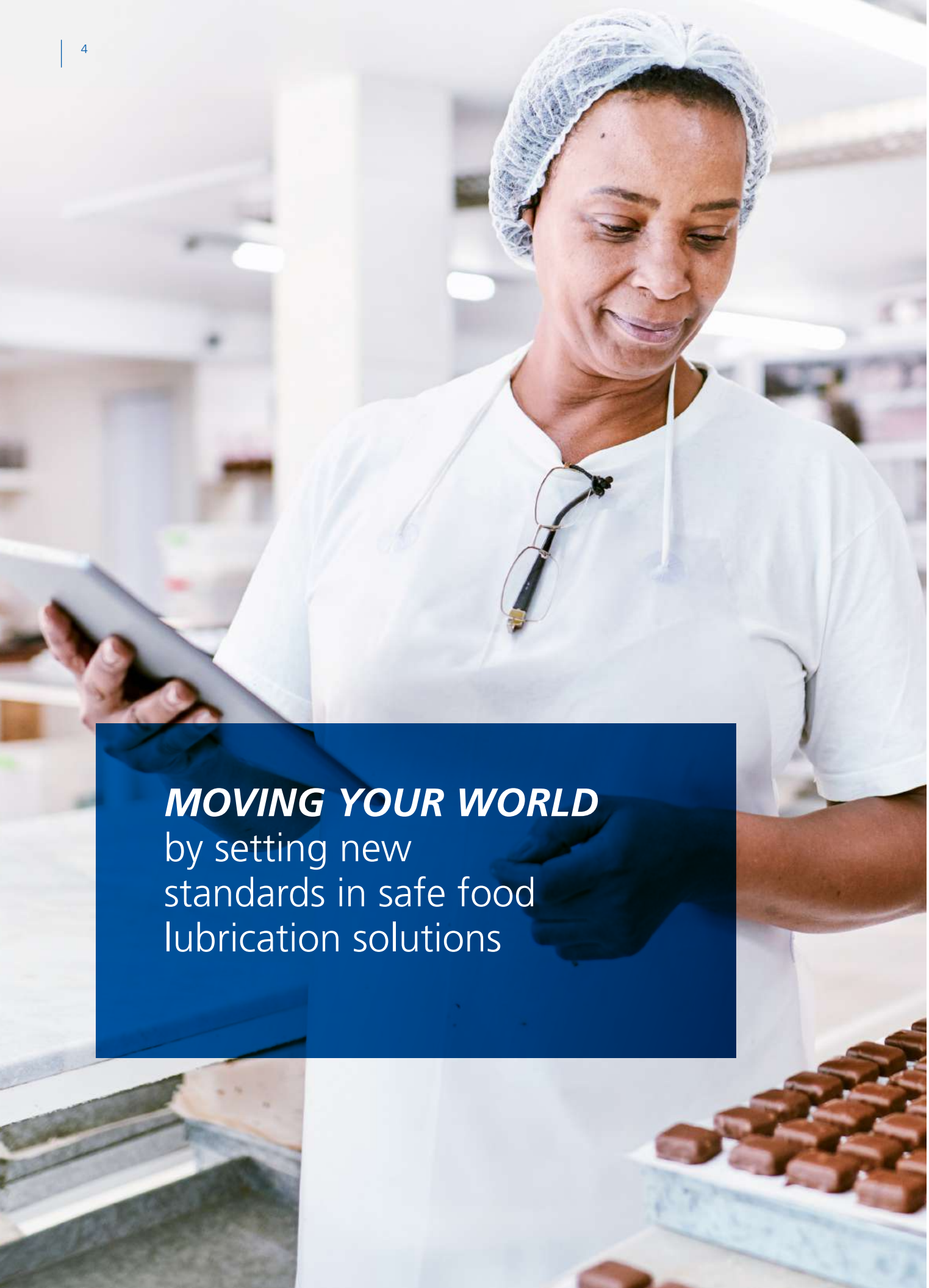
New Castle, DE; Harvey, IL; Kansas City, KS;
Fairhaven, MA; Huntington, WV;
Langley, BC; Cambridge, ON; Querétaro, Qro., MX

Since 1931, we have been pursuing the same goal: to keep the world moving. With innovative and technological lubricant solutions that have a sustainable impact on the future. Unconditional reliability is our top priority, it is the foundation of our company and the basis for everything that defines us.

Reliability is both a driver and a demand. And it's a promise to all our customers in the fields of automotive suppliers and OEMs, 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, qualified lubricant dealers, car dealerships and workshops.

Long-term experience, high development strength and the fulfillment of far-reaching standards are the basis for the special quality of our world-leading product brands. We deliver solutions that are simply more efficient and therefore more sustainable. We always think in holistic solutions. For the development of individual solutions, we enter into an intensive customer dialog with you. This is the way we live up to our claim of moving your world.

***MOVING YOUR WORLD***



***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

## 14–19
## CASSIDA Fluids
**FULLY SYNTHETIC PRODUCTS**

Chain Oils ..... 16
Compressor Fluids ..... 17
Gear Fluids ..... 18
Hydraulic Oils ..... 19
Maintenance Fluids and Specialties ..... 19

## 20–24
## CASSIDA Greases
**FULLY SYNTHETIC PRODUCTS**

Regular Load ..... 22
Extreme Pressure ..... 22
Heavy Duty ..... 22
Specialties ..... 23

## 26–31
## CASSIDA FM Range
**SEMI-SYNTHETIC AND WHITE-OIL-BASED PRODUCTS**

Hydraulic Oils ..... 28
Chain Oils ..... 28
Gear Oils ..... 28
Specialties ..... 29
Greases ..... 30

## 32-33
## SUPERLA® Food Grade

White Oils ..... 33
Pet Jelly ..... 33

## 32–39
## CASSIDA Automatic Lubricators

CASSIDA FLEX ..... 37
Remote Installation Accessory Kit ..... 38

## 40–41
## Rivolta Cleaners

Solvent-based Cleaners ..... 40
Water-based Cleaners ..... 40

## 42–43
## Support & Smart Services

FUCHS Smart Services and LCCP-Survey ..... 42

Warning
Sound horn

## 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

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

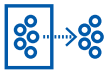
Rivolta

SUPERLA

## 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

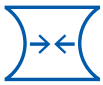
Hydraulics

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)

**Chain Oils**
CASSIDA CHAIN OIL 150 | 1500 SPRAY ..... 16
CASSIDA CHAIN OIL HT 220 ..... 16
CASSIDA CHAIN OIL XTE ..... 16

**Compressor Fluids**
CASSIDA FLUID CR 100 ..... 17
CASSIDA FLUID CRE 46 ..... 17
CASSIDA FLUID RF 68 ..... 17

**Gear Fluids**
CASSIDA FLUID GL 150 | 220 | 320 | 460 | 680 ..... 18
CASSIDA FLUID GLE 150 | 220 ..... 18
CASSIDA FLUID WG 150 | 220 | 320 | 460 | 680 ..... 18

**Hydraulic Oils**
CASSIDA FLUID HF 32 | 46 | 68 | 100 ..... 19

**Maintenance Fluids and Specialties**
CASSIDA SILICONE FLUID SPRAY ..... 19
CASSIDA COOLANT 5 NA ..... 19

## CHAIN OILS

### CASSIDA CHAIN OIL 150 | 1500 Spray

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA CHAIN OIL 150 | 150 | 19 | -30 to +140 (upper peak: +150) | - |
| CASSIDA CHAIN OIL 1500 SPRAY | 1500 | 135 | - | - |
| 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 HT 220

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range oven [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA CHAIN OIL HT 220 | 220 | 20 | -20 to +250 | - |
| Fully synthetic, ester-based, high-temperature chain lubricant | **Main application:** 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 [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range oven [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA CHAIN OIL XTE | 194 | 18 | -20 to +300 | |
| Fully synthetic high-temperature chain lubricant with exceptional thermal stability. | **Main application:** Drive and transport chains in the food industry (e.g. bakeries). Also intended for use in equipment for manufacturing food packaging. | | | |

## COMPRESSOR FLUIDS

### CASSIDA FLUID CR 100

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FLUID CR 100 | 100 | 14 | -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 [mm²/s] | Viscosity at 100°C [mm²/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 RF 68

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| 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). | | | |

## GEAR FLUIDS

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

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FLUID GL 150 | 150 | 19 | -45 to +140 (upper peak: +150) | DIN 51517 CLP / DIN 51506 VBL, VCL |
| CASSIDA FLUID GL 220 | 220 | 25 | -40 to +140 (upper peak: +150) | DIN 51517 CLP / DIN 51506 VBL |
| CASSIDA FLUID GL 320 | 320 | 33 | -35 to +140 (upper peak: +150) | DIN 51517 CLP |
| CASSIDA FLUID GL 460 | 460 | 44 | -35 to +140 (upper peak: +150) | DIN 51517 CLP |
| CASSIDA FLUID GL 680 | 680 | 59 | -30 to +140 (upper peak: +150) | DIN 51517 CLP |

Fully synthetic, very high-perfomance, long-life, anti-wear gear oils. Meet DIN 51517 CLP and ISO 6743/6 specifications.

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

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

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

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

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| 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 |

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

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

## HYDRAULIC OILS

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

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| 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<br>DIN 51517 CLP |
| CASSIDA FLUID HF 100 | 100 | 14 | -45 to +140 (upper peak: +150) | DIN 51524 HLP, HVLP<br>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. | | | |

## MAINTENANCE FLUIDS and SPECIALTIES

### CASSIDA SILICONE FLUID Spray

| | Viscosity at 25°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| 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- | **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 COOLANT 5 NA

| | Viscosity at 20°C [mm²/s] | Viscosity at 40°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA COOLANT 5 NA | 47 | 17 | -45 to +120 | |
| Propylene glycol-based fluid specifically designed to provide effective freeze and corrosion protection. Propylene glycol fluids have low acute oral toxicity and are often used in applications where incidental contact with food or beverage may occur. | **Main application:** Secondary cooling, or heating, in closed systems, and where the temperatures are required to be below the freezing point of water, food processing applications where incidental food contact may occur, various deicing and defrosting applications, also on freeze, burst, and corrosion protection of pipeline. | | | |

# 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 ..... 22

**Extreme Pressure**
CASSIDA GREASE EPS 00 | 1 | 2 ..... 22

**Heavy Duty**
CASSIDA GREASE HDS 00 | 2 ..... 22

**Specialties**
CASSIDA GREASE GTM 2 ..... 23
CASSIDA GREASE GTX 2 ..... 23
CASSIDA GREASE HTS 2 ..... 23
CASSIDA GREASE MD 2 ..... 24
CASSIDA FM GREASE 930-2 ..... 24
CASSIDA GREASE SGG 000 ..... 24
HD GREASE GUN CASSIDA ..... 24

## REGULAR LOAD

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

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA GREASE RLS 00 | AlCx | 100 | 13 | -45 to +100 (upper peak: +120) | 00 |
| CASSIDA GREASE RLS 0 | AlCx | 150 | 18 | -40 to +100 (upper peak: +120) | 0 |
| CASSIDA GREASE RLS 1 | AlCx | 150 | 18 | -40 to +120 (upper peak: +140) | 1 |
| CASSIDA GREASE RLS 2 | AlCx | 150 | 18 | -35 to +120 (upper peak: +140) | 2 |
| High-performance, regular-load aluminium complex greases with synthetic base fluid. | **Main application:** For use on bearings, bushings and linkages on food manufacturing equipment. CASSIDA GREASE RLS 0 and 00 are particulary recommended for centralised lube systems or other similiar systems where an NLGI 2 grease may be difficult to dispense. | | | | |

## EXTREME PRESSURE

### CASSIDA GREASE EPS 00 | 1 | 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA GREASE EPS 00 | AlCx | 220 | 25 | -45 to +100 (upper peak: +120) | 00 |
| CASSIDA GREASE EPS 1 | AlCx | 220 | 25 | -40 to +120 (upper peak: +140) | 1 |
| CASSIDA GREASE EPS 2 | AlCx | 220 | 25 | -35 to +120 (upper peak: +140) | 2 |
| High-performance, extreme-pressure aluminium complex greases with synthetic base fluid. | **Main application:** For use on bearings, bushings and linkages on food manufacturing equipment, particulary where high pressure and loads, high temperatures and water spray occur. CASSIDA GREASE EPS 00 is especially recommended for centralised lube sytems 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 |
|---|---|---|---|---|---|
| CASSIDA GREASE HDS 00 | AlCX | 800 | 68 | -35 to +120 (upper peak: +120) | 00 |
| CASSIDA GREASE HDS 2 | AlCX | 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, particulary 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 GTM 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA GREASE GTM 2 | CSX | 220 | 25 | -40 to +160 | 2 |
| Specialty 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 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| 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 |
|---|---|---|---|---|---|
| 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. | | | | |

### CASSIDA GREASE MD 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| 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. | **Main application:** 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. | | | | |

## SPECIALTIES

### CASSIDA FM GREASE 930-2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA FM GREASE 930-2 | Inorganic | 130 | 2 | -20 to +120 | 2 |
| High-temperature extreme pressure lubricating grease. | **Main application:** Designed for a multitude of general plant lubrication requirements including plain or anti friction bearings, slides, cam tracks, lead pins, chucks and bearings. | | | | |

### CASSIDA GREASE SGG 000

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA GREASE SGG 000 | AlCX | 460 | 45 | -40 to +149 | 000 |
| High-performance, aluminum complex grease with synthetic base fluid. | **Main application: For use in gearboxes where fill- for-life lubrication is required. CASSIDA GREASE SGG 000 is also recommended for centralized lube systems that call for fluid grease with a heavy base oil viscosity and maximum performance.** | | | | |

### HD GREASE GUN CASSIDA

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

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

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

# We have your back on a global scale

# 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 ..... 28

**Chain Oils**
CASSIDA FM CHAIN OIL 100 ..... 28

**Gear Oils**
CASSIDA FM GEAR OIL TLS 150 ..... 28
CASSIDA FM SEAMER OIL 150 ..... 28
CASSIDA FM GEAR OIL 150 | 220 | 320 | 460 | 680 ..... 29

**Specialties**
CASSIDA FM HEAT TRANSFER FLUID 32 ..... 29
CASSIDA FM FLUID RC 150 | 220 ..... 29
CASSIDA FM KRYSTALL ..... 30
CASSIDA FM AIR LUBE AA ..... 30

**Greases**
CASSIDA FM GREASE HD 2 ..... 30
CASSIDA FM GREASE AX/EP SERIES ..... 30
CASSIDA FM GREASE CLEAR SERIES ..... 31
CASSIDA FM GREASE 2 ..... 31
CASSIDA FM GREASE CSC EP SERIES ..... 31

## HYDRAULIC OILS

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

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

## CHAIN OIL

### CASSIDA FM CHAIN OIL 100

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range oven [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FM CHAIN OIL 100 | 100 | 14 | -20 to +120 | |
| White oil, adhesive, anti-wear chain oil. Minimizes fling- off in use and wash-off by both cold and hot water. | **Main application:** Drive and transport chains in the food industry. Also intended for use in equipment manufacturing and food packaging. | | | |

## GEAR OILS

### CASSIDA FM GEAR OIL TLS 150

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FM GEAR OIL TLS 150 | 150 | 15 | 0 to +110 (upper peak: +120) | DIN 51517 CLP |
| Speciality anti-wear gear lubricant specifically designed for use in the food and beverage canning industry. Provides good lubrication even when operating in locations where it is subject to contamination with water, juice and food. Holds these contaminants in suspension, thus protecting metal surfaces from wear and corrosion. Only to be used for total loss systems. | **Main application:** Suitable for can seamer gearboxes on food handling and processing equipment. May also be used for general machine lubrication. | | | |

### CASSIDA FM SEAMER OIL 150

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FM SEAMER OIL 150 | 150 | 15 | 0 to +110 (upper peak: +120) | DIN 51517 CLP |
| A food-grade lubricant designed for use in seaming equipment where incidental food contact may occur. Only to be used for total loss systems. | **Main application:** Suitable for can seamer gearboxeson food handling and processing equipment. Can also be used for general machine lubrication. | | | |

## GEAR OILS

### CASSIDA FM GEAR OIL 150 | 220 | 320 | 460 | 680

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FM GEAR OIL 150 | 150 | 16 | 0 to +110 (upper peak: +120) | DIN 51517 CLP |
| CASSIDA FM GEAR OIL 220 | 220 | 21 | 0 to +110 (upper peak: +120) | DIN 51517 CLP |
| CASSIDA FM GEAR OIL 320 | 320 | 28 | 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 |
| CASSIDA FM GEAR OIL 680 | 680 | 38 | 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 HEAT TRANSFER FLUID 32

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FM HEAT TRANSFER FLUID 32 | 35 | 6 | 0 to +325 (upper peak: +340) | DIN 51522 Q |
| High-performance heat transfer fluid. 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. | | | |

### CASSIDA FM FLUID RC 150 | 220

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

## SPECIALTIES

### CASSIDA FM KRYSTALL

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FM KRYSTALL | 4.5 | 1.6 | -20 to +120 | - |
| Food-grade penetrating and flushing oil with rustinhibiting and lubricating properties. | **Main application:** Cleans and lubricates conveyor surfaces, processing tables, and packaging machines; flushing agent for bearings, gearboxes, and hydraulic systems; release agent for cutting blades, punches, and dies; protects parts against corrosion. | | | |

*without propellant

### CASSIDA FM AIR LUBE AA

| | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | Specifications |
|---|---|---|---|---|
| CASSIDA FM AIR LUBE AA | 18 | 3.8 | -20 to +120 | - |
| Special food-grade oil for air-line lubrication. Formulated with proprietary package of emulsifiers, detergents, and dispersants. | **Main application:** Rolling element and plain bearings. Heavy-loaded and shock-loaded applications. Joints, linkages, and slides. Lubricates pneumatic actuators and lifters, air motors, and air tools. | | | |

## GREASES

### CASSIDA FM GREASE HD 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA FM GREASE HD 2 | AlCx mod. | 550 | 38 | -10 to +140 (upper peak: +150) | 2 |
| Modified aluminum complex heavy-duty, extreme- pressure grease. | **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 FM GREASE AX/EP SERIES

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA FM GREASE AX/EP 0 | AlCx | 180 | 20 | -15 to +120 | 0 |
| CASSIDA FM GREASE AX/EP 1 | AlCx | 180 | 20 | -15 to +120 | 1 |
| CASSIDA FM GREASE AX/EP 2 | AlCx | 180 | 20 | --15 to +120 | 2 |
| High-performance, regular-load aluminum complex grease. | **Main application:** Rolling element and plain bearings. Joints and linkages open to the atmosphere. Automatic, centralized lubrication systems. | | | | |

# GREASES

## CASSIDA FM GREASE CLEAR SERIES

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA FM GREASE CLEAR 1 | AlCx mod. | 100 | 11 | -9 to +104 (upper peak: +112) | 1 |
| CASSIDA FM GREASE CLEAR 2 | AlCx mod. | 100 | 11 | -9 to +104 (upper peak: +112) | 2 |
| Modified aluminium complex multipurpose, extreme pressure grease. | **Main application:** For use on Rolling element and plain bearings; Joints, linkages open to the atmosphere; Automatic, centralized lubrication system; Spreads uniformly to cover metal surface. | | | | |

## CASSIDA FM GREASE 2

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA FM GREASE 2 | AlCx mod. | 570 | 46 | -6 to +121 (upper peak: +129) | 2 |
| Multipurpose heavy duty lubricant for food and beverage processing and packaging industry. Aluminum complex thickener, white oils and selected additives for the stringent requirements of food and beverage industry. | **Main application:** Rolling element and plain bearings; heavy loaded and shock loaded applications; joints, linkages and slides; recommended for a wide range of applications. | | | | |

## CASSIDA FM GREASE CSC EP SERIES

| | Thickener | Viscosity at 40°C [mm²/s] | Viscosity at 100°C [mm²/s] | Temperature range [°C] | NLGI-Grade |
|---|---|---|---|---|---|
| CASSIDA FM GREASE CSC EP 1 | CSx | 105 | 11.7 | -20 to +140 | 1 |
| CASSIDA FM GREASE CSC EP 2 | CSx | 105 | 11.7 | -20 to +140 | 2 |
| Calcium sulphonate complex thickener, white oils and select additives chosen for their ability to meet the stringent requirements of food and beverage industry. | **Main application:** For use on plain and roller bearings. Recommended for a wide range of applications like slides and ways, mechanical linkage, electric motor bearings, pump shaft bearings. High temperatures, steam, and centrifugal action causing throw-off and will work well in many centralized automatic lubrication systems. | | | | |

# 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.

## WHITE OILS

### SUPERLA® FOOD GRADE WHITE OILS

| | Colour Saybolt | Viscosity at 40°C [mm²/s] | Specifications |
|---|---|---|---|
| SUPERLA® WHITE OIL 5 | +30 | 7.8 | NSF H1, 3H<br>FDA 172.878, FDA 178.3570,<br>FDA 178.3620 (b), FDA 573.680, FDA 178.3740<br>USP, Kosher |
| SUPERLA® WHITE OIL 7 | +30 | 13.3 | NSF H1, 3H<br>FDA 172.878, FDA 178.3570,<br>FDA 178.3620 (b), FDA 573.680, FDA 178.3740<br>USP, Kosher |
| SUPERLA® WHITE OIL 9 | +30 | 15.6 | NSF H1, 3H<br>FDA 172.878, FDA 178.3570,<br>FDA 178.3620 (b), FDA 573.680, FDA 178.3740<br>USP, Kosher |
| SUPERLA® WHITE OIL 10 | +30 | 19.0 | NSF H1, 3H<br>FDA 172.878, FDA 178.3570,<br>FDA 178.3620 (b), FDA 573.680, FDA 178.3740<br>USP, Kosher |
| SUPERLA® WHITE OIL 21 | +30 | 40.5 | NSF H1, 3H<br>FDA 172.878, FDA 178.3570,<br>FDA 178.3620 (b), FDA 573.680, FDA 178.3740<br>USP, Kosher |
| SUPERLA® WHITE OIL 35 | +30 | 67.3 | NSF H1, 3H<br>FDA 172.878, FDA 178.3570,<br>FDA 178.3620 (b), FDA 573.680, FDA 178.3740<br>USP, Kosher |

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

### PETROLATUM SNOW WHITE

| | Colour Lovibond | Viscosity at 100°C [mm²/s] | Cone penetration 1/10mm at 25°C | Specifications |
|---|---|---|---|---|
| PETROLATUM SNOW WHITE | 0.5 | 13.5 | 170 | NSF H1, 3H, and Kosher |

Ash free mixture of mineral oils and a special petroleum wax with a smooth grease like texture.

**Main application:** Salves, suppositories, sun tan products, hair products, other applications where the consistency contributed by petrolatum is requeired.

# 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 FLEX ..... 38
REMOTE INSTALLATION ACCESSORY KIT ..... 39

# 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 FLEX automatic lubricators.

## CASSIDA Automatic Lubricators

### CASSIDA FLEX 125

**Description:** 125 cm³ automatic lubrication system

**Items included:** CASSIDA FLEX 125

**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 cm³ and 125 cm³ sizes.

## Technical Information

**Operation**
**Electrochemical reaction. Gas production.**

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

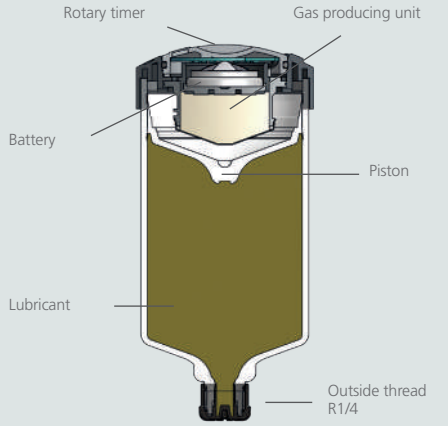
**Lubricant capacity**
**60 cm³ or 125 cm³**

**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**




Dimensions:
FLEX 60: Ø 58 x 86.5 mm
FLEX 125: Ø 58 x 117 mm

**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 |
| a +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

# 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 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 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 | |

# 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.

## SOLVENT-BASED CLEANERS

### Rivolta S.B.C. Spray

| NSF | 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.) | | |

## WATER-BASED CLEANERS

### Rivolta B.F.C. Spray

| NSF | Density at 15°C [g/cm³] | pH-Value at 15°C | Specifications |
|---|---|---|---|
| Rivolta B.F.C. Spray | 0.98 | 8.5 | NSF A1 |
| 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. | **Available in:** 400 ml spray can (PU 12 pcs.) | | |

# *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.**

FUCHS Lubricants

# Innovative lubricants need experienced application engineers

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

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