



# SKF Food Grade Lubricants

The solution to food and beverage industry demands  
Portfolio of NSF H1 registered, Kosher and Halal certified products



The Power of Knowledge Engineering

# SKF Food Grade Lubricants

Greases	page
<b>LGFP 2</b> General purpose grease	3
<b>LGFS 00</b> General purpose grease, clean	4
<b>LGFD 2</b> High load grease	5
<b>LGFC 1</b> Low temperature grease	6
<b>LGFT 2</b> High temperature grease	7
Oils	
<b>LFFH 46</b> <b>LFFH 68</b> Hydraulic oil	8
<b>LFFG 220</b> <b>LFFG 320</b> Gear oil	9
<b>LFFM 80</b> <b>LHFP 150</b> <b>LFFT 220</b> Chain oil	10
Special lubricant	
<b>LDTS 1</b> SKF Dry Film Lubricant	11

Health concerns are rising concerning the usage of inappropriate lubricants in the manufacturing of various food-type products. It is very important to use food grade lubricants in food production facilities to avoid potential product pollution and unnecessary costs related to it.

Our food grade lubricants are NSF H1<sup>1</sup> registered and Kosher<sup>2</sup> and Halal<sup>3</sup> certified. Additionally, they rely on the ISO 21469 standard which helps ensure that they are produced and delivered according to the highest hygienic requirements. Selecting the right food grade lubricant for the application can bring multiple benefits:

- Improved safety
- Reduced maintenance costs
- Improved processing efficiency

The food and beverage industry is a challenging market where production efficiencies need to improve while maintaining safety and cleanliness. The new SKF Food Grade Lubricants product range can help our customers reach their targets.

<sup>1</sup> NSF: U.S. National Sanitation Foundation

H1: Incidental contact with food

<sup>2</sup> Kosher: Food prepared in accordance with Jewish dietary laws

<sup>3</sup> Halal: Food prepared in accordance with Islamic dietary laws



# Greases

## LGFP 2

### General purpose grease

SKF LGFP 2 is a clean, non-toxic bearing grease, which is based on medical white oil using an aluminium complex soap.

- High resistance to water
- Excellent grease life
- Excellent corrosion resistance
- An essentially neutral pH value

#### Applications

- Multi-pack cassette bearings
- Wrapping machines
- Conveyor bearings
- Bottling machines



#### Ordering details

Pack sizes	LGFP 2
420 ml cartridge	LGFP 2/0.4
1 kg can	LGFP 2/1
18 kg can	LGFP 2/18
180 kg can	LGFP 2/180
SKF SYSTEM 24 / LAGD 60 ml	LAGD 60/FP2

Pack sizes	LGFP 2
SKF SYSTEM 24 / LAGD 125 ml	LAGD 125/FP2
SKF SYSTEM 24 / TLSD 125 ml	TLSD 125/FP2
SKF SYSTEM 24 / TLSD 250 ml	TLSD 250/FP2
TLMR 120 ml	LGFP 2/MR120
TLMR 380 ml	LGFP 2/MR380

#### Technical data

Designation	LGFP 2/(pack size)
NLGI consistency class	2
DIN 51825 code	K2G-20
Appearance	Transparent
Soap type	Aluminium complex
Base oil type	Medical white oil
Operating temperature range	-20 to +110 °C (-5 to +230 °F)
Dropping point DIN ISO 2176	>250 °C (>480 °F)
Base oil viscosity	
40 °C, mm <sup>2</sup> /s	130
100 °C, mm <sup>2</sup> /s	7,3
Penetration DIN ISO 2137	
60 strokes, 10 <sup>-1</sup> mm	265-295
100 000 strokes, 10 <sup>-1</sup> mm	+30 max.

Corrosion protection	
Emcor: - standard ISO 11007	0-0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1-5
Rolling bearing grease life	
ROF test	
L <sub>50</sub> life at 10 000 r/min., hrs	1 000 at 110 °C (230 °F)
EP performance	
4-ball test, welding load DIN 51350/4, N	1 100 min.
Shelf life	2 years
NSF Reg. No.	128004

## LGFS 00

### General purpose grease, clean

SKF LGFS 00 is a premium synthetic base oil and Aluminium complex thickened grease suitable for applications where vegetarian and nut-free food is produced.

- LGFS 00 does not contain any natural products derived from animals, GMO's and nuts
- It does not promote the growth of bacteria and fungal organisms

#### Applications

Enclosed industrial gearboxes and automatic, centralized lubrication systems such as those used for:

- Packaging
- Cutting/forming knives
- Conveyers



#### Ordering details

Pack sizes	<b>LGFS 00</b>
19 kg can	LGFS 00/19

#### Technical data

Designation	LGFS 00/(pack size)		
NLGI number, DIN 51818	00	Dropping Point ISO 2176	>200 °C (>392 °F)
Classification, DIN 51502	GP HC 00 G-40	Penetration ISO 2137 25 °C, 10 <sup>-1</sup> mm	400-430
Classification, ISO 6743-9	L-XEBEB 00	Base oil viscosity ISO 3104 40 °C, mm <sup>2</sup> /s	220
Appearance	White semi-fluid	100 °C, mm <sup>2</sup> /s	25
Type of thickener	Aluminium complex	Shelf life	2 years
Base oil type	Synthetic (PAO)	NSF Reg. No.	149602
Operating temperatures range	-45 to +100 °C (-49 to +212 °F) peak up to 120 °C (248 °F)		

## LGFD 2

### High load grease

SKF LGFD 2 is a premium synthetic base oil and Aluminium complex thickened grease suitable for applications experiencing high loads.

- Excellent oxidation and mechanical stability
- Excellent water and corrosion resistance
- Excellent adhesive properties

#### Applications

Lubrication of bearings, joints, linkages and slides in F&B industry, for the machines used in:

- Packaging
- Bottling
- Wrapping
- Conveyers



#### Ordering details

Pack sizes	LGFD 2
400 ml cartridge	LGFD 2/0.4
19 kg can	LGFD 2/19

#### Technical data

Designation	LGFD 2/(pack size)		
NLGI number, DIN 51818	2	Dropping Point ISO 2176	>240 °C (>464 °F)
Classification, DIN 51502	KP HC 2 K-30	Penetration ISO 2137 25 °C, 10 <sup>-1</sup> mm	265-295
Classification, ISO 6743-9	L-XCCEB 2	Base oil viscosity ISO 3104 40 °C, mm <sup>2</sup> /s	220
Appearance	White smooth paste	100 °C, mm <sup>2</sup> /s	25
Type of thickener	Aluminium complex	Shelf life	2 years
Base oil type	Synthetic (PAO)	NSF Reg. No.	149601
Operating temperatures range	-35 to +120 °C (-31 to +248 °F) peak up to 140 °C (284 °F)		

## LGFC 1

## Low temperature grease

SKF LGFC 1 is a premium synthetic base oil and Aluminium complex thickened grease suitable for applications experiencing low temperatures.

- Excellent low temperature performance
- Excellent water and corrosion resistance
- Excellent adhesive properties

### Applications

Lubrication of bearings, joints, linkages and slides in F&B industry, for machines used in:

- Freezers
- Cooling processes



### Ordering details

Pack sizes	LGFC 1
400 ml cartridge	LGFC 1/0.4
19 kg can	LGFC 1/19

### Technical data

Designation	LGFC 1/(pack size)
NLGI number, DIN 51818	1
Classification, DIN 51502	K HC 1 E-50
Classification, ISO 6743-9	L-XEBEA 1
Appearance	Pale yellow, smooth paste
Type of thickener	Aluminium complex
Base oil type	Synthetic (PAO)
Operating temperatures range	-50 to +100 °C (-58 to +212 °F) peak up to 110 °C (230 °F)
Dropping Point ISO 2176	>200 °C (>392 °F)

Penetration ISO 2137 25 °C, 10 <sup>-1</sup> mm	310-340
Base oil viscosity ISO 3104 -30 °C, mm <sup>2</sup> /s	960
+40 °C, mm <sup>2</sup> /s	20
+100 °C, mm <sup>2</sup> /s (calculated)	4.8
Flow pressure -25 °C, mbar	300
-35 °C, mbar	475
Shelf life	2 years
NSF Reg. No.	149603

## LGFT 2

## High temperature grease

SKF LGFT 2 is a premium synthetic base oil and inorganically thickened<sup>1</sup> grease suitable for applications experiencing high temperatures.

- Excellent high temperature performance
- Excellent water and corrosion resistance
- Excellent adhesive properties

### Applications

Lubrication of bearings, joints, linkages and slides in F&B industry, for the machines used in:

- Ovens
- Other bakery equipment

<sup>1</sup> LGFT 2 is based on an inorganic thickener and should therefore not be mixed with most greases based on other type of thickeners.



### Ordering details

Pack sizes	LGFT 2
400 ml cartridge	LGFT 2/0.4
19 kg can	LGFT 2/19

### Technical data

Designation	LGFT 2/(pack size)
NLGI number, DIN 51818	2
Classification, DIN 51502	KP HC 2 S-30
Classification, ISO 6743-9	L-XCGEA 2
Appearance	Beige, smooth paste
Type of thickener	Inorganic
Base oil type	Synthetic (PAO)
Operating temperatures range	-30 to +200 °C (-22 to +392 °F) peak up to 220 °C (428 °F)

Dropping Point ISO 2176	None
Penetration ISO 2137 25 °C, 10 <sup>-1</sup> mm	265-295
Base oil viscosity ISO 3104 40 °C, mm <sup>2</sup> /s	400
100 °C, mm <sup>2</sup> /s	40
200 °C, mm <sup>2</sup> /s (calculated)	6
Shelf life	2 years
NSF Reg. No.	149604

# Oils

**LFFH 46**

## Hydraulic oil

**LFFH 68**

SKF LFFH 46 and LFFH 68 are synthetic hydraulic fluids suitable for lubrication of machinery used in the food industry.

- Excellent anti-wear performance
- Excellent water separation properties
- Excellent protection against corrosion

### Applications

- Hydraulic systems
- Hydrostatic gears
- Circulating oil systems



### Ordering details

Pack sizes	LFFH 46	LFFH 68
22 l can	LFFH 46/22	LFFH 68/22
205 l can	LFFH 46/205	LFFH 68/205

### Technical data

Designation	LFFH 46/(pack size)	LFFH 68/(pack size)
Appearance	Yellowish	Yellowish
Base oil type	Synthetic	Synthetic
Base oil viscosity ISO 3104		
40 °C, mm <sup>2</sup> /s	46	68
100 °C, mm <sup>2</sup> /s	7.9	10.9
Density ISO 12185		
15 °C, kg/m <sup>3</sup>	836	843
Flash point DIN/EN/ISO 2592 COC	248 °C	258 °C
Pourpoint ISO 3016	<-60 °C	<-60 °C
FZG-Test A/8.3/90 Failure Load Stage DIN 51354-2	12	>12
Viscosity Index DIN ISO 2909	142	143
Shelf life	2 years	2 years
NSF Reg. No.	149599	149600



**LFFG 220**

## Gear oil

**LFFG 320**

SKF LFFG 220 and LFFG 320 are synthetic gear oils suitable for lubrication of machinery used in the food industry.

- Excellent EP properties
- High viscosity index resulting in minimum variation of viscosity with change of temperature
- Excellent protection against corrosion

### Applications

- Enclosed gear boxes
- Packaging
- Conveyers



### Ordering details

Pack sizes	LFFG 220	LFFG 320
22 l can	LFFG 220/22	LFFG 320/22
205 l can	LFFG 220/205	LFFG 320/205

### Technical data

Designation	LFFG 220/(pack size)	LFFG 320/(pack size)
Appearance	Pale yellow	Pale yellow
Base oil type	Synthetic	Synthetic
Base oil viscosity ISO 3104		
40 °C, mm <sup>2</sup> /s	220	320
100 °C, mm <sup>2</sup> /s	25	33.4
Density ISO 12185		
15 °C, kg/m <sup>3</sup>	847	852
Flash point DIN/EN/ISO 2592 COC	276 °C	278 °C
Pourpoint ISO 3016	-48 °C	-45 °C
FZG-Test A/8.3/90 Failure Load Stage DIN 51354-2	>12	>12
Viscosity Index DIN ISO 2909	143	147
Shelf life	2 years	2 years
NSF Reg. No.	149597	149598

## LFFM 80

## Chain oil

## LHFP 150

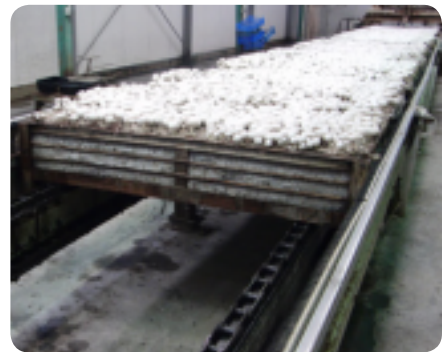
Our food grade chain oil range is specifically developed for food and beverage applications where high temperature, high humidity and low temperatures are critical factors to consider in the selection of the correct oil.

## LFFT 220

**LFFM 80** - High moisture chain oil LFFM 80 exhibits particularly good performance in high moisture environments such as in proofers and pasta driers as well as in applications where condensation might occur. This low viscosity semi-synthetic base oil prevents residue build-up on the chains and offers good wear and corrosion protection.

**LHFP 150** - General purpose chain oil LHFP 150 excels in low to elevated temperature applications such as in confectionery industries and fruit and vegetable processing. The formulation is based on a synthetic oil and the product provides good corrosion and wear protection together with good aging and oxidation stability.

**LFFT 220** - High temperature performance chain oil LFFT 220 is mainly for use in bakery ovens or other equipment subjected to high temperatures. It provides good wear protection and low evaporation losses at elevated temperatures along with excellent oxidation resistance due to its formulation and synthetic base.



### Ordering details

Pack sizes	LFFM 80	LHFP 150	LFFT 220
5 l can	LFFM 80/5	LHFP 150/5	LFFT 220/5
SKF SYSTEM 24 / LAGD 125 ml	LAGD 125/FFM80	LAGD 125/HFP15	LAGD 125/FFT22

### Technical data

Designation	LFFM 80	LHFP 150	LFFT 220
Appearance	White	Colourless	Yellow
Base oil type	Semi synthetic (mineral/ester)	Synthetic ester	Synthetic ester
Specific gravity	0.89	0.85	0.95
Operating temperature range	-30 to +120 °C (-22 to +248 °F)	-30 to +120 °C (-22 to +248 °F)	0 to 250 °C (32 to 482 °F)
Base oil viscosity: 40 °C (104 °F), mm <sup>2</sup> /s 100 °C (212 °F), mm <sup>2</sup> /s	approx. 80 approx. 10	ISO VG 150 approx. 19	ISO VG 220 approx. 17
Flash point	>200 °C (>392 °F)	>200 °C (>392 °F)	>250 °C (>482 °F)
NSF Reg. No.	146767	136858	146768

# Special lubricant

## LDTS 1

### SKF Dry Film Lubricant

SKF Dry Film Lubricant LDTS 1 has been specially developed for automatic lubrication of plastic flat top chain conveyors in the beverage processing industry. It adheres very well to all treated surfaces and has outstanding properties. The lubricant consists of synthetic oil and is doped with PTFE solid lubricant.

- Cost savings by eliminating high volume of water and soluble lubricant.
- Improved operator safety by reducing slip hazards.
- Quality of packaging is maintained by elimination of moisture.
- Reduced risk of product contamination by minimising microbiological growth.
- Enhanced line efficiency by avoiding replacement costs and associated unplanned production stops.
- Reduced cleaning costs.

#### Applications

- Conveyors in bottling lines using PET, carton, glass or can packages.



#### Ordering details

##### Pack sizes

5 l can

##### LDTS 1

LDTS 1/5

#### Technical data

##### Designation

LDTS 1

##### Composition

Mineral oils, hydrocarbons, additives, PTFE

##### Appearance

White

##### Operating temperature range

-5 to +60 °C (25 to 140 °F)

##### Viscosity at 40 °C (104 °F)

ca. 11 mm<sup>2</sup>/s

##### Pour point

<0 °C

##### Density 20 °C (70 °F)

ca. 843 kg/m<sup>3</sup>

##### Flash point of the preparation

ca. 100 °C (210 °F)

##### Flash point after evaporation of the solvent

>170 °C (340 °F)

##### NSF Reg. No.

139739

## SKF Single-point automatic lubricators

Improve cleanliness, accuracy, safety and reliability

Performing manual relubrication tasks can be a major challenge for lubrication technicians if the appropriate tools, practices and knowledge are not employed. Reliability can also be affected by under- or over-greasing and contamination. Automatic lubrication provides small quantities of clean lubricant on a regular basis, thus improving bearing performance. Additional benefits include increased safety and time savings for lubrication technicians.



LAGD



TLSD



TLMR

## SKF ChainLube

Airless oil projection system for conveyor roller chain lubrication in food processing

The SKF ChainLube airless oil projection system CLK, is a food-safe, reliable, easy-to-use solution for accurate, automatic roller chain lubrication. The system includes a central unit that precisely delivers a metered volume of lubricant to the points of friction of each chain link whilst the chain is in operation. A control unit is preset to the preferred timing for lubricant application. Airless projection nozzles have no mechanical contact with the chains thus minimizing applicator wear and dirt accumulation. The main components are resistant to corrosion and suitable for a wide range of temperatures. All of these features make this solution suitable for the particular requirements of the Food and Beverage industry.

Reservoir 7,5 liter



© SKF is a registered trademark of the SKF Group.

© SKF Group 2015

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB MP/P2 14982 EN · January 2015

