



## CASSIDA FLUID GL

Gear lubricants for use in food manufacturing equipment

### Description

CASSIDA FLUID GL 150, 220, 320, 460 and 680 are high performance, anti-wear gear oils specially developed for the lubrication of enclosed gears in food and beverage processing machinery.

They are based on a careful blend of synthetic fluids and selected additives chosen for their ability to meet the stringent requirements of the food industry.

Registered by NSF (Class H1) for use where there is potential for incidental food contact. These products meet the guidelines (1998) of, and were previously authorised by, the US Department of Agriculture Food Safety and Inspection Service (USDA FSIS) for H1 use (lubricant with incidental food contact) and listed in Miscellaneous Publication No 1419 "List of Proprietary Substances and Nonfood Compounds". Product contain only substances permitted under US 21 CFR 178.3570, 178.3620 and 182 for use in lubricants with incidental food con-tact.

### Application

- Lubrication of enclosed gearboxes used in the food industry.
- Also intended for use in equipment manufacturing food packaging.

### Advantages/Benefits

- Resist the formation of harmful products of oxidation even at elevated temperatures
- Base oils have the ability to provide superior lubrication under all operating conditions
- Excellent EP properties make CASSIDA FLUID GL grades suitable for steel-on-steel and worm and phosphor-bronze wheel applications.
- Neutral odour and taste
- High viscosity index resulting in minimum variation of viscosity with change in temperature.

### Specifications and Certificates

- NSF H1
- Kosher
- Halal
- DIN 51506 VBL (GL 150, 220), VCL (GL 150)
- ISO/DP 6743/6 L-CKD
- DIN 51517 CLP

October 2010 GDUK Page 1 of 4

Health, Safety and Environment - information is provided for products in the relevant Safety Data Sheet. This provides guidance on potential hazards, precautions and first-aid measures, together with environmental effects and disposal of used products.

While the information and figures given here are typical of current production and conform to specification, minor variations may occur. No warranty expressed or implied is given concerning the accuracy of the information or the suitability of the products



## Synthetic lubricants

- Do not contain natural products derived from animals or genetically modified organisms (GMO)
- Do not contain any allergenic or intolerance inducing substances as specified in Annex IIIa of EC directive 2003/89/EC
- Suitable for use where vegetarian and 'nut free' food is prepared
- Biostatic; do not promote the growth of bacteria or fungal organisms

## Approvals & Recommendations

This is an ongoing process, please contact your local partner for any updates.

- David Brown: CASSIDA FLUIDGL 460 for worm gears
- Lenze
- Getriebebau Nord: CASSIDA FLUID GL 220 & 680
- Krones
- SEW (GL 220 for helical units & GL 460 for worm gear units)
- Bonfiglioli (for parallel shaft and helical in-line reducers; CASSIDA FLUID GL 460 for worm or worm/screw gears)
- FMC can seamers (viscosity for different models according to OEM specification).
- FAG
- Buehler
- Westfalia Food Tec (CASSIDA FLUID GL 220)
- Toyo Can Seamer type 43M (CASSIDA FLUID GL 150)
- Stork Food and Dairy Systems (GL 150-680)

## Seal and Paint Compatibility

Compatible with the elastomers, gaskets, seals and paints normally used in food machinery lubrication systems.

## Protect the environment

Take used lubricants and empty packs to an authorised collection point. Do not discharge into drains, soil or water.

## Oil condition during use

It is recommended that the condition of the oil and the equipment be regularly checked to ensure safe operation.



## "Incidental Food contact"

Registered by NSF (Class H1) and meet the USDA H1 guidelines (1998) for lubricants for use where there is a potential for incidental food contact. Certified by NSF for ISO 21469, Safety of machinery, Lubricants with incidental product contact, Hygiene requirements. Made only from substances permitted under the US FDA Title 21 CFR 178.3570, 178.3620 and/or those generally regarded as safe (US 21 CFR 182) for use in food grade lubricants. To comply with the requirements of US 21 CFR 178.3570, contact with food should be avoided where possible. In the case of incidental food contact, the concentration of the products in the food must not exceed 10 parts per million (10mg/kg of foodstuff). In locations and/or applications where local legislation does not specify maximum concentration limits, FUCHS recommends that this same 10ppm limit be observed, as up to this concentration CASSIDA FLUID GL grades will not impart undesirable taste, odour or colour to food, nor will they cause adverse health effects. Consistent with good manufacturing practice, use only the amount necessary to achieve correct lubrication and take appropriate corrective action should excessive incidental contact with food be detected.

## Handling and storage

All food grade lubricants should be stored separately from other lubricants, chemical substances and foodstuffs and out of direct sunlight or other heat sources. Store between 0°C and 40°C. Provided that the products have been stored under these conditions we recommend that the products be used within 5 years from the date of manufacture. Consult FUCHS for details. Accept for use new CASSIDA FLUID GL grades only if the manufacturer's seal is intact. Before opening the packs ensure the area around the closure is clean. It is recommended that it be cleaned with potable water and then dried with a clean cloth before opening. Record the date the seal was broken. To prevent product contamination, always close the package after use. Upon opening a pack, the product must be used within 2 years (or within 5 years of date of manufacture, whichever is the sooner).

October 2010 GDUK Page 3 of 4

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## CHARACTERISTICS: CASSIDA FLUID GL

Characteristics	Unit						Test Method
<b>CASSIDA FLUID GL .....</b>		<b>150</b>	<b>220</b>	<b>320</b>	<b>460</b>	<b>680</b>	
NSF Registration No.		92534	92535	92536	92537	92538	
Colour		Colourless, pale yellow					
Density at 15°C	kg/m <sup>3</sup>	845	847	852	855	858	ISO 12185
Flashpoint	°C	268	276	278	270	286	ISO 2592
Pourpoint	°C	-54	-48	-45	-45	-39	ISO 3016
Kinematic Viscosity at 40°C	mm <sup>2</sup> /s	150	220	320	460	680	ISO 3104
Kinematic Viscosity at 100°C	mm <sup>2</sup> /s	18.9	25.0	33.4	43.8	58.6	ISO 3104
Viscosity index		143	143	147	148	152	ISO 2909
FZG-Test A/8.3/90	Failure Load Stage			>12			DIN 51599

October 2010 GDUK Page 4 of 4

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