



SHELL FM GEAR OIL TLS

Specialty gear lubricant for use in food manufacturing equipment

Product Description

Shell FM Gear Oil TLS 150 is a specialty anti-wear gear lubricant which is specifically designed for use in the food and beverage canning industry. It is based on a careful blend of fluids and selected additives chosen for their ability to meet the stringent requirements of the food industry. It is registered by the NSF (Class H1) for use where there is potential for incidental contact with food. This product meets the former requirements (1998) of the US Department of Agriculture Food Safety and Inspection Service (USDA FSIS) for H1 use (lubricant with incidental food contact). **Shell FM Gear Oil TLS 150** contains only substances permitted under US 21 CFR 178.3570, 178.3620 and 182 for use in lubricants with incidental food contact.

Shell FM Gear Oil TLS 150 does not contain any natural products derived from animals, nuts or genetically modified organisms (GMOs). It is suitable for use where vegetarian and nut-free food is prepared. **Shell FM Gear Oil TLS 150** does not promote the growth of bacteria or fungal organisms.

Applications

- lubrication of rotary can seaming machines equipped with **total loss systems**
- circulating and bearing oil systems where contamination with water or food juice can occur, such as citrus juice extraction machines

Features/Benefits

- base fluid has an ability to provide excellent lubrication under the majority of operating conditions
- formulated to provide good lubrication even when subjected to contamination with juice, water, food
- neutral odor and taste
- good anti-oxidant properties which helps to resist the formation of sludge at elevated temperatures

Seal and Paint Compatibility

Compatible with the elastomers, gaskets, seals and paints, such as poly-urethane and two part epoxy resin paints, frequently used on machinery and in lubrication systems employed in the food processing industry.

Specifications and Certificates

- NSF H1
- Kosher
- Halal
- DIN 51517 CLP

Approvals and Recommendations

- Angelus Sanitary Can Seaming Company for can seamer lubrication

Incidental Food Contact

Registered by NSF (Class H1) and meet the former USDA H1 guidelines (1998) for lubricants where there is a potential for incidental food contact. 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 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 this product in the food must not exceed 10 parts per million (10 mg/kg of foodstuff). In locations and/or applications where local legislation does not specify maximum concentration limits, this same 10 ppm limit should be observed, as up to this concentration **Shell FM Gear Oil TLS 150** will not impart undesirable taste, odor, or color to food. 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, such as Shell FM Gear Oil TLS, should be stored separately, out of direct sunlight or other heat sources, from other lubricants, chemical substances and foodstuffs. Store between 0 and 40 deg. C. Provided that the product has been stored under these conditions, we recommend the product be used within 5 years from the date of manufacture. Only accept new Shell FM Gear Oil TLS for use if the manufacturer's seal is intact. Before opening the pack ensure the area around the closure is clean. It is recommended that it be cleaned with potable water and dried before opening. Record the date the seal was broken. To prevent product contamination, always close the package after use. Use the product within 2 years of opening.

Typical Properties of Shell FM Gear Oil TLS 150

	Test Method	150
Product Code		5062345 (drum) 5062346 (pail)
NSF Registration No.		135972
Appearance	Visual	Colorless/slight pale
Viscosity		
@ 40°C, cSt	ISO 3104	150
@ 100°C, cSt	ISO 3104	15.1
Viscosity Index	ISO 2909	104
Density at 15°C (kg/l)	ISO 12185	0.873
Flash Point, COC, °F	ISO 2592	505
Pour Point, °F	ISO 3016	10
FZG, Failure Load Stage	DIN 51354/2	>11

Produced according to Shell Quality Standards, in facilities where HACCP audit and Good Manufacturing Practice have been implemented and form part of the quality/environment management system ISO 9001/ ISO 14001.

Handling & Safety Information

As for all oils, prolonged or repeated contact with the skin should be avoided. For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.