



# CHEVRON LUBRICATING OIL FM

## 32, 46, 68, 100, 220, 460

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### PRODUCT DESCRIPTION

Chevron Lubricating Oils FM are premium performance multipurpose food grade lubricants formulated for use in the food processing and other sensitive industries where incidental food contact may occur.

### CUSTOMER BENEFITS

Chevron Lubricating Oils FM deliver value through:

- **Oxidation inhibition** — High oxidation stability protects against oil thickening and sludge formation.
- **Variety of non-food applications** — Helps minimize inventory.
- **Container selection** — Packaged in new returnable 55 gallon drums, 5 gallon pails, and 330 gallon disposable containers.
- **Odorless and tasteless** — Product will not be adulterated if incidental food contact should occur.
- **Excellent antiwear protection, long oil service intervals, and rust protection**
- **Suitable for conventional oil collection/recycling programs**

### FEATURES

They contain a special preservative to protect against the introduction of molds when the product is put into service.

Provides performance above that found in typical white mineral oils often used in the food industry.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

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## APPLICATIONS

ISO	Description	Properties							Recommended for
		Lubricity Enhancer	Antiwear	Rust protection	Corrosion protection	Water separability	Foam control	Oxidation stability	
32 46 68	Hydraulic oils, general purpose lubricants		✓	✓	✓	✓	✓	✓	High pressure hydraulic systems, air compressors, airline lubricators, and the lubrication of bearings and lightly loaded gears
100 (* )	Circulating oil and general purpose lubricant		✓	✓	✓		✓	✓	Circulating oil systems, airline lubricators, and bearing lubrication
220	Gear oil and general purpose lubricant		✓	✓	✓	✓	✓	✓	Enclosed gear sets, reduction gears, and gear drives which are sensitively located in a food processing operation. It can also be used in hydraulic or circulating systems that require a higher viscosity lubricant.
460 (* )	Gear oil and general purpose lubricant, a "compounded" gear oil	✓	✓	✓	✓		✓	✓	Gear sets, rotary steamers, and valves up to 175°C (350°F)

(\* ) ISO 100 and ISO 460 grades emulsify with water.

### Chevron Lubricating Oils FM

- conform to **U.S. Food and Drug Administration (FDA)** requirements of lubricants with incidental food contact, 21 CFR 178.3570. Lubricants with incidental food contact should not contaminate food at levels greater than 10 ppm.
- are registered by **NSF** and are acceptable as a lubricant where incidental food contact may occur (H1) in and around food processing areas. The NSF Nonfood Compounds Registration Program is a continuation of the USDA product approval and listing program, which is based on meeting regulatory requirements of appropriate use, ingredient review and labeling verification.
- are certified **Kosher** and **Pareve**.
- are identified on the **Canadian Food Inspection Agency** Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products. This registration requirement was repealed by CFIA on July 2, 2014.

Chevron Lubricating Oils FM meet these stringent standards of purity while performing exceptionally well in high pressure hydraulic applications, plant air tool lubrication (FRL units), high temperature gears, and gearhead motors.

Chevron Lubricating Oil FM 100 is approved by:

- Racine Fluid Power** for use in their vane-type high pressure pumps

Do not use Chevron Lubricating Oils FM 32, 46, or 68 in high pressure systems in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

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## TYPICAL TEST DATA

ISO Grade	32	46	68	100	220	460
Product Number	232103	255150	255110	232105	255106	232106
SDS Number	6850	6850	6850	6859	6859	6859
AGMA Grade	—	1	2	3	5	7 Compounded
API Gravity	33.4	32.8	32.2	31.5	30.7	29.2
Viscosity, Kinematic cSt at 40°C cSt at 100°C	30.4 5.2	41.4 6.4	64.6 8.5	95.0 11.3	209 20.2	437 34.7
Viscosity, Saybolt SUS at 100°F SUS at 210°F	157 44	213 48	334 55	494 65	1096 102	2308 169
Viscosity Index	100	101	102	105	112	118
Flash Point, °C(°F)	220(428)	234(453)	254(489)	260(500)	260(500)	243(469)
Pour Point, °C(°F)	-9(+16)	-9(+16)	-9(+16)	-9(+16)	-9(+16)	-9(+16)
Rust Test Distilled water, ASTM D665A	Pass	Pass	Pass	Pass	Pass	Pass
Four-Ball Wear Scar Diameter, mm	0.45	0.43	0.42	0.44	0.43	0.43
Vickers V104C Pump Test Total Wear, mg	16.7	—	16.5	19.2	—	—
Oxidation Stability, Hours to 2.0 mg KOH/g acid number, ASTM D943*	>15,000	>15,000	>15,000	>15,000	>15,000	—

\* Modified ASTM D943, allowed to run beyond 10,000 h.

Minor variations in product typical test data are to be expected in normal manufacturing.

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