



CHEVRON LUBRICATING OILS FM

ISO 32, 46, 68, 100, 220, 460

CUSTOMER BENEFITS

Chevron Lubricating Oils FM deliver value through:

- **High quality control** — Enables customer to use lubricants almost as pure as the food being processed
- **High performance** — Provides lubrication better than that given by the white mineral oils generally used and comparable to nonfood grade lubricants
- **Oxidation inhibition** — Gives long life without forming gummy and sticky deposits
- **Multipurpose lubricant** — Enables customer to reduce inventory
- **Container selection** — Packaged in new returnable 55 gallon drums, 5 gallon pails, and 330 gallon disposable containers
- **Odorless and tasteless** — Food processor can be sure his product will not be adulterated if incidental food contact should occur

- **Excellent antiwear protection, long service intervals, and rust protection**
- **Environmental sensitivity** — Passes the acute aquatic toxicity (LC 50) test for fish and are considered inherently biodegradable. Suitable for conventional oil collection/recycling programs.

FEATURES

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



Chevron Lubricating Oils FM provide performance well above that found in typical white mineral oils often used in the food industry.

They contain a special biocide to prevent growth of molds when the product comes in contact with food or water.

APPLICATIONS

ISO	Description	Properties							Recommended for
		Lubricity	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)

Chevron Lubricating Oils FM — Continued

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 certified 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 accepted by the **Canadian Food Inspection Agency** for use in Registered Plants and for use on food equipment or machinery parts where contact with food is only incidental.

Chevron Lubricating Oils FM meet these stringent standards of purity while performing exceptionally well in high pressure hydraulic applications, airline lubrication, high temperature gears, and gearhead motors.

Chevron Lubricating Oil FM ISO 100 is approved by:

- Racine Fluid Power** for use in their vane-type high pressure pumps
- Angelus Sanitary Can Machine Company** for use in their Manzel lubricators

Do not use Chevron Lubricating Oils FM ISO 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.

TYPICAL TEST DATA

ISO Grade	32	46	68	100	220	460
Product Number	232103	255150	255110	232105	255106	232106
MSDS 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 D 943	>15,000	>15,000	>15,000	>15,000	>15,000	—

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.