



# MEROPA<sup>®</sup> ISOCLEAN<sup>®</sup> CERTIFIED LUBRICANT 68, 100, 150, 220, 320, 460, 680

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## PRODUCT DESCRIPTION

Meropa<sup>®</sup> ISOCLEAN<sup>®</sup> Certified Lubricants are premium quality extreme pressure gear oils with excellent load carrying capacity, water demulsibility, oxidation stability, and corrosion protection. Chevron ISOCLEAN Certified Lubricants have been certified to meet specified ISO Cleanliness standards at point of delivery using industry leading filtration and testing technology. ISOCLEAN Certified products are the first step for contamination control and maximizing component life.



- **Long equipment life** — Effective EP system forms a protective film in areas of metal-to-metal contact, minimizing wear rates and maintaining efficient transfer of power. Good water separation and effective rust inhibitors protect surfaces against rust and corrosion. High thermal stability additive system minimizes the formation of acidic compounds which can be corrosive to bearing materials. The effective corrosion inhibitor provides additional protection for metal components.
- **Long oil life** — Effective oxidation inhibitors and copper passivator minimize oil oxidation, limiting viscosity increase and promoting long drain intervals.

## CUSTOMER BENEFITS

Meropa ISOCLEAN Certified Lubricants deliver value through:

- **Ready to use** — Enables users to meet stringent original equipment manufacturers' cleanliness standards for fill lubricants.
- **Flexibility** — ISO Cleanliness targets can be customized to fit your business application needs.
- **Peace of mind** — Each delivery of Chevron ISOCLEAN Certified Lubricant includes an ISOCLEAN Certificate of Analysis.
- **OE fluid cleanliness requirements** — Customized to meet specific equipment manufacturers' fluid cleanliness requirements.
- **Gear set efficiencies** — High thermal stability EP system helps maintain clean gear and bearing surfaces, minimizing deposits which interfere with effective lubrication. High oxidation stability limits in-service viscosity increases, which can lead to energy losses.

## FEATURES

Meropa ISOCLEAN Certified Lubricants are high performance, multipurpose gear lubricants designed for many types of industrial gear lubrication services where loads and shock loadings are high.



## APPLICATIONS

Meropa ISOCLEAN Certified Lubricants are recommended for:

- industrial enclosed gearing where an AGMA extreme pressure lubricant is specified
- bath, splash, circulating, or spray mist lubrication as applicable to the proper viscosity grade
- general industrial plant lubrication where the performance properties of an AGMA extreme pressure lubricant is required

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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GL-37 ISOCLEAN

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**Meropa®** — Continued

Meropa® ISOCLEAN® Certified Lubricants are approved for:

ISO Grade	68	100	150	220	320	460	680
SMS Group SN 180-2		X	X	X	X	X	X
ZF TE-ML 04H		X	X				
ZF TE-ML 04F				X			

Meropa ISOCLEAN Certified Lubricants meet the requirements of:

ISO Grade	68	100	150	220	320	460	680
ANSI/AGMA EP 9005-F16	X	X	X	X	X	X	X
DIN 51517/3 CLP	X	X	X	X	X	X	X
Fives Cincinnati			P-77	P-74	P-59	P-35	P-34
US Steel 224 Specification	X	X	X	X	X	X	X
David Brown S1.53.101 (5E)	X	X	X	X	X	X	X
ISO 12925-CKC	X	X	X	X	X	X	X
ISO 12925-CKD	X	X	X	X	X	X	X
Joy Mining Machinery TO-MEP				X			
Joy Mining Machinery TO-HEP					X		
Joy Mining Machinery TO-HD						X	

Meropa ISOCLEAN Certified Lubricants have a typical sulfur-phosphorus odor characteristic of industrial gear oils. A ventilated environment is recommended during use.

Consult with your Chevron Lubricant Representative or Chevron ISOCLEAN Certified Lubricants Marketer to set specific ISO Cleanliness targets for your business application.

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## TYPICAL TEST DATA

ISO Grade	Test Method	68	100	150	220	320
Product Number		278039	278047	278040	278041	278042
SDS Number		23551	23551	23551	23551	23551
AGMA Grade		2 EP	3 EP	4 EP	5 EP	6 EP
API Gravity	ASTM D287	31.0	30.6	29.7	28.4	27.3
Density at 15°C, kg/L	ASTM D4052	0.8838	0.8849	0.8861	0.8872	0.8863
Viscosity, Kinematic cSt at 40°C cSt at 100°C	ASTM D445	68 8.8	100 11.4	150 15.0	220 19.3	320 24.5
Viscosity, Saybolt SUS at 100°F SUS at 210°F		334 55	495 64	744 77	1102 96	1618 116
Viscosity Index	ASTM D2270	101	100	100	99	98
Flash Point, °C(°F)	ASTM D92	236(457)	250(482)	264(507)	278(532)	278(532)
Pour Point, °C(°F)	ASTM D97	-32(-26)	-29(-20)	-26(-15)	-23(-9)	-22(-8)
Foam Test, Seq. II Tendency, mL Stability, mL	ASTM D892	50 max 0	50 max 0	50 max 0	50 max 0	50 max 0
Water Separation Minutes to 3 mL emulsion	ASTM D1401	25	20	20	20	25
Copper Corrosion 3 h @ 100°C	ASTM D130	1B	1B	1B	1B	1B
Rust Test	ASTM D665A ASTM D665B	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
Timken OK Load, lb	ASTM D2783	70	70	75	75	75
4 Ball Weld Weld Point, kg Load Wear Index	ASTM D2783	250 45.9	250 >45	250 >45	250 52.9	250 >45
FE-8 Bearing Test Roller weight loss, mg	DIN51819-3	3.7	3.7**	3.7**	2.1	2.1#
FZG Scuff Test, A/8.3/90°C, Fail Stage	ASTM D5182	>14	>14	>14	>14	>14
FZG Pass Stage	ASTM D5182	12	12	12	12	12

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

\*\*Read-across data: In this test, lower ISO grades are typically more severe than higher ISO grades; therefore, data is read-across from ISO 68

#Read-across data: In this test, lower ISO grades are typically more severe than higher ISO grades; therefore, data is read-across from ISO 220

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.

**TYPICAL TEST DATA**

ISO Grade	Test Method	460	680
Product Number		278043	278044
SDS Number		23551	23551
AGMA Grade		7 EP	8 EP
API Gravity	ASTM D287	26.3	26.0
Density at 15°C, kg/L	ASTM D4052	0.8838	0.8849
Viscosity, Kinematic cSt at 40°C cSt at 100°C	ASTM D445	460 31.2	680 41.4
Viscosity, Saybolt SUS at 100°F SUS at 210°F		2341 144	3467 194
Viscosity Index	ASTM D2270	98	101
Flash Point, °C(°F)	ASTM D92	279(534)	279(534)
Pour Point, °C(°F)	ASTM D97	-21(-6)	-21(-6)
Foam Test, Seq. II Tendency, mL Stability, mL	ASTM D892	50 max 0	50 max 0
Water Separation Minutes to 3 mL emulsion	ASTM D1401	30	40
Copper Corrosion 3 h @ 100°C	ASTM D130	1B	1B
Rust Test	ASTM D665A ASTM D665B	Pass Pass	Pass Pass
Timken OK Load, lb	ASTM D2783	80	80
4 Ball Weld Weld Point, kg Load Wear Index	ASTM D2783	250 >45	250 51.4
FE-8 Bearing Test Roller weight loss, mg	DIN51819-3	2.1#	2.1#
FZG Scuff Test, A/8.3/90°C, Fail Stage	ASTM D5182	>14	>14
FZG Pass Stage	ASTM D5182	12	>12

#Read-across data: In this test, lower ISO grades are typically more severe than higher ISO grades; therefore, data is read-across from ISO 220.

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

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.