



# CARTAGO MULTIGRADO EP 80W90 AND 85W140

TRANSMISSIONS AND GEARBOXES

## Description

Extreme Pressure multigrade lubricant oil, recommended for use in the differentials of vehicles or in hypoid and helicoidal transmission systems, as well as in manual gearboxes where an API GL-5 oil is required.

## Properties

- Great load bearing capacity and capacity to withstand momentarily high temperatures. Extreme Pressure (EP).
- Very good resistance to ageing.
- Excellent antirust and anti-foam properties.
- Facilitates a lubrication at low temperatures.
- As it is multigrade, it provides excellent protection in very severe conditions in terms of temperatures and use.
- It provides a better response to the synchronisms of manual boxes than a monograde oil due to the lower friction in the teeth of the cogs, especially at low temperatures.
- Good anti-wear properties, which prolongs the useful life of the transmission.
- Water resistant.

## Quality level

- API GL-5 (80W90 and 85W140)
- MB 235.0 (80W90)
- MAN 342 M1 (80W90)
- VW 727 (80W90)
- ZF TE-ML 05A/07A/08/16B/16C /17B/19B/21A (80W90)
- RENAULT Axles (80W90)
- DAF API GL-5 (80W90 and 85W140)
- MIL-L-2105 D (80W90 and 85W140)
- VOLVO 97310 (85W140)
- ZFTE-ML 05A/07A/08/16C /16D/21A (85W140)

## Technical characteristics

	UNIT	METHOD	VALUE	VALUE
SAE grade			80W90	85W140
Density at 15°C	g/ml	ASTM D 4052	0.899	0.914
Viscosity at 100°C	cSt	ASTM D 445	15.4	28.3
Viscosity at 40°C	cSt	ASTM D 445	140	400
Viscosity at -26°C	cP	ASTM D 2983	150,000 maximum	-
Viscosity at -12°C	cP	ASTM D 2983	-	150,000 maximum
Viscosity index		ASTM D 2270	105 minimum	95 minimum
Flash point, open cup	°C	ASTM D 92	170 minimum	190 minimum
Pour point	°C	ASTM D 97	-27	-18
FZG, Step 12		DIN 51354	Pass	Pass
4 Balls, ICD		ASTM D 2783	50 minimum	50 minimum

## ■ Hazard identification

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This product is not classified as toxic or hazardous under current legislation.

## ■ Handling

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Minimum precautions should be taken to avoid prolonged contact with the skin. The use of gloves, visors or glasses is recommended to avoid splashes.

## ■ Health and Safety Hazards

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**Inhalation:** Given that it is not a particularly volatile product, the risk of inhalation is minimal.

**Ingestion:** Do not induce vomiting. Provide water. Seek medical advice.

**Contact with the skin:** Wash with plenty of water and soap.

**Eyes:** Wash thoroughly with water.

**General measures:** Seek medical advice.

## ■ Fire-fighting measures

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No special measures required.

**Fire-extinguishing measures:** Foams, dry chemicals, CO<sub>2</sub>, water spray. Do not apply the jet of water directly as this could cause the product to disperse.

## ■ Environmental precautions

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Danger of physical pollution if spilt (water, coastlines, soil, etc.) due to its floatability and oily consistency that may harm flora and fauna on contact. Avoid material getting into water outlets.

**Decontamination and cleaning:** Treat like an accidental oil spill. Prevent dispersion using mechanical barriers and remove by physical or chemical means.

A safety information file is available on request.

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Unless otherwise indicated, the figures cited in technical characteristics should be considered typical.