



# CIRCULACIÓN EP

INDUSTRY

## Description

Carefully elaborated paraffin base oils to which specific additives endowing extreme pressure and anti-wear properties are added. As a result, these oils, along with their high viscosity indexes, excellent rust resistance and advanced demulsibility are enhanced by their capacity to easily pass level 10 of the FZG test.

## Recommended uses

These oils are typically used to lubricate, by circulation, bearings subjected to severe service, including strong water contamination, and are normally used in rolling mills. Their characteristics also make them suitable for the lubrication of industrial suppressants subject to medium loads but not to impacts.

In spite of their extreme pressure additives, these oils are harmless to metals, and so can be used for the lubrication of slow plain bearings which have a wide diameter and are drop-feed lubricated. At their lowest viscosity index they can also be used to lubricate medium-speed ball bearings.

## Properties

- High viscosity rate.
- Low freezing point.
- Low carbon residue.
- Excellent water separation.
- Very good antirust properties.
- Exceptional extreme pressure properties.

## Quality level

- Exceeds ISO 6743/2 – FC levels
- DIN 51517 part 3-CLP.
- Load capacity equivalent to that required by DIN 51524 part 2-HLP.

## Technical characteristics

	UNIT	METHOD	VALUE	VALUE	VALUE	VALUE	VALUE
ISO Grade			100 EP	220 EP	320 EP	460 EP	680 EP
Viscosity at 40°C	cSt	ASTM D 445	90	235	320	460	680
Viscosity at 100°C	cSt	ASTM D 445	10.3	18	24	30	39
Viscosity rate		ASTM D 2270	95	95	95	95	95
Density	g/cm <sup>3</sup>	ASTM D 4052	0.886	0.898	0.903	0.906	0.908
Flash point	°C	ASTM D 92	230	235	240	265	265
Pour point	°C	ASTM D 97	-9	-9	-9	-9	-9
FZG, Step load		DIN 51354	>12	>12	>12	>12	>12
Cu corrosion, 3hr at 100°C		ASTM D 130	1b	1b	1b	1b	1b
Disemulsion	min	ASTM D 1401	< 20	< 20	< 30	< 45	< 60
Res. Oxidation, NN @1000h	mgKO H/g	ASTM D 943	< 2	< 2	< 2	< 2	< 2

## Available in

Bulk, 875 kg container and 185 Kilo drum: ISO 100. 875 kg container: ISO 460.

Bulk and 185 kg drum: ISO 220 and 320 grades. Bulk: ISO 680 grade.

## ■ 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.

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Technical data sheet for Lubricants. Review 6. September 2009.