



SINTETICO COMANDER EHC

INDUSTRY

Description

It is a high performance, fire-resistant hydraulic fluid designed for use in Electro-hydraulic Control steam turbine systems, including those systems which use low tolerance servo-valves. As it is synthetic, any changes from universal fluids to this type should not be made without prior consultation as its compatibility with joints is completely different.

Recommended uses

Control systems of steam turbines in conventional or nuclear power stations. As a lubricant in gas turbines.

Properties

- Resistance to fire (Mutual-Standard-6930)
 - Heated circuit test - without ignition.
 - Spray ignition (maximum burning persistence) 3 seconds.
- Anti-wear
 - Testing in Vickers pump 250 hours:
 - . Hoop weight loss: 5.9 mg.
 - . Pallet weight loss: 3.3mg.
 - . Total loss: 9.2 mg.
 - Four-ball test (40 kg. 1 hour)
 - . Average scar diameter: 0.6 mm.
 - FZG test – Damage step: 8.

Quality level

- FHD fluid. Approved by the principal turbine manufacturers, such as Siemens-KWU, BBC, AEG, PARSON, etc.
- Complies with ASTM-D-4293, ISO-LTCD.

Technical characteristics

	UNIT	METHOD	VALUE
ISO VG Grade			46
Density at 20°C	g/ml	ASTM D 4052	1.13
Viscosity at 100°C	cSt	ASTM D 445	5
Viscosity at 40°C	cSt	ASTM D 445	43.4
Viscosity at 20°C	cSt	ASTM D 445	175
Viscosity at 0°C	cSt	ASTM D 445	1700
Pour point	°C	ASTM D 97	-20
Flash point, open cup	°C	ASTM D 92	246
Auto-ignition point	°C	ASTM D 2155	575
Aeromulsion at 50°C	minutes	IP -313	1

Presentations

200 Kg cans.

■ Hazard identification

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

■ Handling

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

Inhalation: In case of inhalation, move person outdoors. Request medical aid.

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

No special measures required.

Fire-extinguishing measures: Foams, dry chemicals, CO₂, water spray. Do not apply the jet of water directly as this could cause the product to disperse.

■ Environmental precautions

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.

Emergency phone number. National Toxicology Institute 915 620 420

A safety information file is available on request.

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901 111 999

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