



TURBO ARIES

INDUSTRY

Description

In order to satisfy the high demands made by several turbine manufacturers, a type of lubricant has been developed which conforms, with excellent results, to such diverse accelerated oxidation tests as IP-280, ASTM-D-2272 and IP-328 as well as exceeding 4000 h. in the conventional ASTM-D-943. In addition, these types of oils have also passed radioactive exposure tests which certify them for use in nuclear power stations.

Recommended uses

Specially recommended in nuclear and thermal power stations for steam turbines requiring rust and oxidation inhibiting oils and a long service life. They can also be used in Aries applications to give greater durability.

Properties

- Extraordinary resistance to ageing and sludge formation.
- Great antirust power.
- Great water separation facility.
- Excellent antifoam qualities.
- Very good air separation.
- Used by the majority of turbines installed in Spain.

Quality level

- DIN-51515 Part 1 L-TD.
- DIN-51517 Part 2 CL.
- DIN-51506 VBL and VCL.
- In addition, it complies with specifications: ABB, SIEMENS, WESTINGHOUSE, AEG, ALSTHOM, SULZER, KKK, GE, etc.
- DIN-8659 Part 2.
- ISO 3498 (1986) CKB.
- The EP type is MIL L-17331 H

Technical characteristics

	UNIT	METHOD	VALUE	VALUE	VALUE	VALUE
ISO VG Grade			32	46	68	EP
Viscosity at 40°C	cSt	ASTM D 445	32	46	68	80
Viscosity at 100°C	cSt	ASTM D 445	5.4	6.8	8.5	9.6
Viscosity rate		ASTM D 2270	100	98	98	95
Density at 15°C	g/cm ³	ASTM D 4052	0.87	0.880	0.880	0.886
Pour point	°C	ASTM D 97	-15	-12	-12	-12
Flash point	°C	ASTM D 92	215	220	230	230
Disemulsion at 54°C	min	ASTM D 1401	<15	<15	< 30	< 30
Resistance to rust, A		ASTM D 665	Pass	Pass	Pass	Pass
Aeromulsion at 50°C	min	ASTM D 3427	2.5	2.5	4	--
RBOT	min	ASTM D 2272	750	600	600	--
TAN	mg KOH/g	ASTM D 664	0.14	0.14	0.14	0.15
Oxidation (TAN = 2)	hr	ASTM D 943	>4000	>3000	>3000	>1000

Available in

Bulk, 875 kilo containers and 185 kilo drum: ISO grades 32, 46, 68 and EP.
5 litre container: ISO 32 grade.

■ 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: 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

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.

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.

Technical data sheet for Lubricants. Review 5. September 2009.