

## Description

Turbo Aries technology has been developed to comply with the stringent requirements in the lubrication of steam and medium-duty gas turbines by major turbine manufacturers. It has been designed to exceed the highest oxidation performance required by modern turbine Specifications. Turbo Aries have outstanding filterability, excellent resistance to rust and corrosion and good air release features. Turbo Aries contains anti-wear protection and can be used also in geared turbine applications. More than 14,000 running hours are attained in the toughest bench test performed, to confirm its antioxidant capability. This is TWO times more than what was stated in the harshest OEM specification for gas turbines. Outstanding RPVOT result is 4.5 times better than the values requested in GEK specifications for gas turbines, while maintaining the same amount of additives.

## Properties

- Resistance to oxidation, ageing and build-up of Varnish thanks to its outstanding antioxidant feature.
- Exceptional antifoaming and air release capacity to avoid cavitation and good pumpability.
- Excellent water separability feature; ideal for incidental water ingress into oil system / reservoir.
- Anti-wear protection, particularly important in geared turbine with EP requirements.

## Quality levels, approvals and recommendations

- DIN-51515 Part 1 L-TD and Part 2
- DIN-51506 VDL
- AGMA 9005-F16
- British Standard BS 489
- ISO 8068 TGA/TGE & TSA/TSE
- GEK 101941A, 107935A, 27070, 28143B, 32568J, and 46506
- SIEMENS FLUID SPEC 65/007
- SIEMENS AG TLV 9013 04, 9013 05
- Indian Standard IS 1012

## Technical specifications

	UNIT	METHOD	VALUE		
ISO Viscosity Grade			32	46	68
Viscosity at 100 °C	cSt	ASTM D445	5.4	6.8	8.6
Viscosity at 40 °C	cSt	ASTM D445	32	46	68
Viscosity index	-	ASTM D2270	110	110	111
Density at 15 °C	g/cm <sup>3</sup>	ASTM D4052	0.849	0.856	0.874
Flash point, open cup	°C	ASTM D92	210	226	246
Air release at 50 °C	min	ASTM D3427	1.6	2	2.4
Pour point	°C	ASTM D97	-24	-21	-15
Rust protection (A & B methods)	-	ASTM D665	Pass	Pass	Pass
TAN	mg KOH/g	ASTM D974	0.07	0.07	0.07
TOST (Oxidation Stability to 2 mg KOH/g)	h	ASTM D943	11602	>10000	>10000
RPVOT (Oxidation Stability)	min	ASTM D2272	2857	2483	2632
FZG A/8. 3/90, Failed stage	Step	ASTM D5182	9	10	10

The above mentioned characteristics are typical values and should not be considered product specifications.