



### **Technical Data Sheet**

# **EUTHERM**

# Diathermic high quality oil

Oils Diathermic high quality, formulated with mineral bases of highly refined paraffinic type, which can be used in multiple applications providing high performance due to the good heat transfer properties. The Heat Capacity to 260°C (ASTM D 2766 method) is about 2.9 kJ/kg·°C.

## **Applications & Benefits**

### - Heat Exchange Performance

These products provide excellent performance in expansion vessel systems with high forced flow circulation of the diathermic oil that can have a boiler outlet temperature up to about 300 ° C by contacting heating elements with appropriate surface temperature to achieve a suitable jump thermal.

#### - Extended maintenance intervals

Formulated with highly refined mineral bases, EUTHERM is resistant to cracking, oxidation and thickening phenomena, enabling you to prolong the life of the oil, to achieve efficient fluid heating and optimal circulation.

### - Efficiency

The grades available for EUTHERM guarantee, on the basis of the needs of closed-circuit oil circuits, optimum fluidity, minimizing the formation of volatile and decomposing products.

#### - Wear Protection

Since it is not a corrosive product and possesses a good solvent power, EUTHERM reduces deposition formation, solubilizing oxidation products and leaving the internal surfaces of the exchanger clean.

#### - Tips

Working temperatures above the optimum ones reduce the service life of the product.

Diathermic oil in the expansion vessel must have a temperature not exceeding 60°C in the case of air contact to limit possible oxidative phenomena in the absence of a nitrogen pad.

# **Specifications & Approvals**

### - Exceeds the specifications listed below:

Classified according to ISO 6743-12 group Q Meets DIN 51522 requirements

Remember to always check the usage and maintenance manual for the correct choice.

\*For further information please contact the Technical Service.





### **Applications Advice:**

In the case of starting a new or renewed maintenance system, it must be considered that there may be moisture and therefore it is advisable to heat the Diathermic Oil at about 100°C and purge the vapor formed before reaching operating temperatures.

Keep in-service Diathermic Oil charge under control with periodic analysis to identify any variations in product characteristics that may compromise its performance. The product to be analyzed must be taken from a circulation point of the circuit and not from the expansion vessel, sampling it into suitable containers (ex. steel) to avoid interaction with the product.

The start or stop phase of the plant should be done gradually: increase or decrease the temperature of the Diathermic Oil by about 70°C per hour. Regarding the stop of the system, circulate Diathermic Oil for some time after interruption of heating to avoid thermal degradation of the product in contact with too hot elements of heating.

#### Caratteristiche Chimico-Fisiche

Test	Method	Eutherm	
ISO Grade	-	32	100
Density @ 15°C, kg/dm <sup>3</sup>	ASTM D 4052	0.855	0.870
Viscosity			
cSt @ 40°C	ASTM D 445	32.0	100.0
cSt @ 100°C		5.5	11.5
Viscosity Index - Unit	ASTM D 2270	110	100
Pour point, °C	ASTM D 97	-27	-24
Flash point, °C	ASTM D 92	225	230

NOTE: The above values are "typical" for normal production tolerance and do NOT constitute a specification.

# Storage, Health & Environment

### - Storage & Health

It is recommended to store the EUTHERM lubricant under cover. If storage is carried out outdoors, it is recommended to position the drums, preferably under a roof, in a horizontal position and, if kept upright, cover them with a lid to prevent water infiltration. It is advisable not to store the packs at temperatures above 60°C or directly to the sun as it is good to keep them in places not subject to freezing.

EUTHERM has no health effects when properly used, applying the normal personal hygiene standards.

#### - Environment

Do not discharge the new and/or exhausted lubricant into the sewage system, soil or waterways. Exhausted lubricant must be delivered to an authorized collection point.





# **Additional information**

# - Safety Data Sheet

It is provided aside and must be considered for its information or can be easily downloaded from <a href="www.rilub.it">www.rilub.it</a>
Contact your technical service for more information:



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