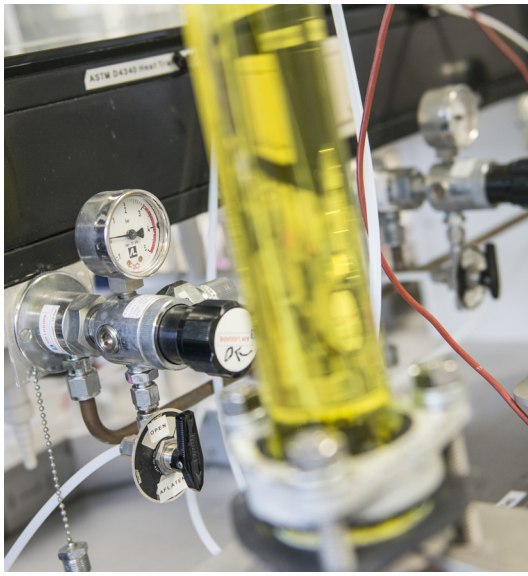
Zitrec® TF-M

OAT technology



Zitrec® TF-M is a heat transfer fluid (HTF) based on monoethylene glycol, with an extraordinary non-depleting inhibitor package, used in a wide range of industrial cooling applications.

Zitrec® TF-M is a next generation HTF that provides long-lasting corrosion protection in both old and modern installations.

Zitrec® TF-M is designed to seamlessly replace Zitrec® M in all current installations.

PRODUCT BENEFITS

Excellent heat transfer properties

- Carefully selected additives improve the heat transfer efficiency and thermal conductivity of the systems
- Has a high specific heat capacity and low viscosity
- Proven performance in dynamic heat transfer test

Selective inhibitor technology

- Contains organic non-depleting inhibitors, securing long-lasting protection and increased service life
- Effective protection of different materials against corrosion, such as steel, copper, aluminium, brass and cast iron. This leads to major benefits for pumps, vales, seals and heat exchangers

Robustness

- High resistance to temperature variation
- Outstanding oxidation and pH stability
- Minimal maintenance and adequate part protection

Environment and safety

- Carefully selected additives to reduce environmental impact
- 2EHA, nitrite and borate free technology

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Application

Arteco's **Zitrec® TF-M** can be used with confidence in systems as secondary refrigerant, such as applications ranging from solar panels or heat pump systems, over cooling or heating of industrial processes and refrigerants in indirect cooling systems to artificial ski-tracks or ice rinks.
Zitrec® TF-M ensures a good thermal conductivity, has a high specific heat transfer and low viscosity. It is also non-flammable and compatible with common engineering materials.
Zitrec® TF-M can be used as a full replacement for **Zitrec® M** applications and its respective performance level requirements, for both professional and consumer use.

Toxicity & safety

For Toxicity and Safety Data we refer to the Safety Data Sheet. The information and advice given should be observed and due attention should be given to the precautions necessary for handling chemicals. This product should not be used to protect the inside of drinking water systems against freezing.

Packaging

Arteco's **Zitrec® TF-M** is available in the following packs & colours:

Bulk

Drum

IBC 1000L

Yellow

Contact details

Should you have questions with regards to Arteco's **Zitrec® TF-M**, related to available packages or colours or on one of the other Arteco solutions, please do not hesitate to contact your local Area Sales Manager or send your inquiry to info@arteco-coolants.com.

Addendum - Technical information

Chemical and Physical Properties

Property	Zitrec® TF-M	Unit	Method
Colour	yellow, blue		
Ethylene glycol	min. 91	% w/w	
Inhibitor content	5 typ.	% w/w	
Water content	< 5	% w/w	ASTM D1123
Nitrite, borate, 2EHA, phosphate	-		
Density (20°C)	1.1202	kg/l	ASTM D5931
Relative Index (15,6°C)	1.125		ASTM D5931
Equilibrium boiling point	170 min.	°C	ASTM D1120
pH (20°C)	8.6		ASTM D1287
Refractive index (20°C)	1.4342		ASTM D1218

Shelflife & storage requirements

Zitrec® TF-M can be stored for 12 months in unopened containers without any effect on the product quality or performance. It is strongly recommended to use new, non-translucent containers and where possible packages with a UV-filter. Direct sunlight and high temperatures can degrade the quality of the product. **Zitrec® TF-M** should be stored above -20°C and below 30°C. Periods of exposure to temperatures aboves 35°C should be minimised. **Zitrec® TF-M** is not compatible with galvanised steel.

Compatibility and mixability

Zitrec® TF-M is compatible with most other heat transfer fluids based on ethylene glycol and water, especially **Zitrec® M**. Exclusive use of **Zitrec® TF-M** is however recommended for optimum performance. As for any heat transfer fluid, we recommend the use of deionised or distilled water to prepare the ready-to-use dilutions for optimal performance and controlled quality.
It is recommended to use at least 33vol% of **Zitrec® TF-M** in the solution. This provides an initial freezing point of -18°C. Mixtures with more than 70 vol% **Zitrec® TF-M** in water are not recommended.
We refer to our product information leaflet on water quality recommendations. Contact your local Area Sales Manager for more information.
Zitrec® TF-M is compatible with widely and commonly used construction materials such as metals, alloys, rubbers and engineering (thermo)plastics. We refer to our Coolant Compatibility with Elastomer and Thermoplastic & Thermosetting Polymers for a more extensive list.

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