

ECO MPG-P -20 - 20kg



Price: **333.50 PLN** gross

333.50 PLN for op.

Manufacturer: **Vestoil**

Referention number: **MPG-P -20 - 20KG**

Condition:: **New**

Quantity: 0 pcs.

Information:

Fluid ECO MPG-P 20°C 20kg. Low-solidifying point propylene glycol solution with corrosion inhibitors for filling transport and heat exchange systems including the food industry, for refrigerating and heating devices including those used in food freezing, air conditioning, solar collectors, heat pumps. Recommended for flat collectors.

Full product description

Fluid **ECO MPG-P 20°C 20kg.** Low-solidifying point propylene glycol solution with corrosion inhibitors for filling transport and heat exchange systems including the food industry, for refrigerating and heating devices including those used in food freezing, air conditioning, solar collectors, heat pumps. Recommended for flat collectors.

Use:

ECO MPG-P fluids are used as a heat carrier or intermediate coolant in solar heating systems, industrial refrigeration, heating, and air conditioning systems. ECO MPG-P concentrate and low-solidifying point fluid is a water-based solution with a greenish color, pure, practically non-toxic propylene glycol with additives used as a heat and cold carrier. ECO MPG-P fluids are used as a heat carrier or intermediate coolant. Its resistance to freezing has been achieved using propylene glycol, which also minimizes evaporation losses due to the high boiling point of 189°C. The advantage of using ECO MPG-P fluids in closed water heating systems is that the entire system or part of it can be turned off even at minus temperatures, and restarting is possible at any time. This solution is highly energy efficient in buildings where continuous heating is not necessary (holiday houses, churches, industrial facilities).

In our climate zone, freezing resistance to -20°C should be sufficient to protect the components of the system located even in the gable walls of the building. ECO MPG-P fluids also provide the required protection against freezing and corrosion in floor heating systems made of PP pipes. When filling a system where the carrier was water or another liquid, the system should be well rinsed to remove corroded metal particles and other deposits. Make sure that there is no water in the system before using the product.

ECO MPG-P fluids can be used as transfer fluid in flat solar collector systems. It is necessary to check the fluid concentration in periods not exceeding one year. To top up the fluid, use only the ECO MPG-P fluids. Solar heating systems should be designed as closed systems and must be constantly filled with a circulating heat carrier to the highest point of the system. Remember to ensure the proper and required freezing temperature as well as the fact that in an unloaded system, the temperature of the carrier must not exceed 150°C. Vacuum solar collectors reaching significantly higher temperatures compared to flat collectors are recommended to be filled with liquid with increased boiling point ECO MPG-SOL.

ECO MPG-P fluids are especially recommended for filling industrial refrigerating systems and in heat pumps as a heat/cold transport medium in closed

secondary circuits. ECO MPG-P fluids manifold liquid in the operation of the refrigerating system, protect against corrosion the elements of which the systems are built, effectively transfer heat/cold, through significantly reduced toxicity they can work in systems used in the food industry and for freezing food. ECO MPG-P fluids have been used for many years to fill heat pump circuits.

ECO MPG -P fluid can be used as leak detection and leak detection solution for double-wall tanks and for filling fire sprinkler systems. ECO MPG-P 15 fluid is most often used.

■ **Product features:**

ECO MPG-P concentrate and low-solidifying point fluid is a water-based solution with a greenish color, pure, practically non-toxic propylene glycol with additives used as a heat and cold carrier. Production and control are carried out in accordance with the Quality System of the Company based on the ISO 9001-2000 standard. The resistance of ECO MPG-P to freezing depends on the concentration of the concentrate in the solution with water. The higher the concentration, the higher the resistance to freezing. Even below the crystallization temperature, in typical Central European winter conditions (-20°C), the system will not explode, because if the temperature will drop below the crystallization point no uniformly solidified ice is formed, only ice slurry. The ECO-MPG-P concentrate and fluids have corrosion inhibitors that protect the steel and non-ferrous metals used in systems and pumps. The corrosion resistance tests commonly used in the installation technique of metal materials show that in all types of ECO MPG-P fluid the corrosion rate of individual metal materials is much lower than the corrosion rate of these materials in water or glycol solution without inhibitors. ECO MPG-P fluids provide proper corrosion protection over a period of approx. 3 years of use. After this period, fluids should be inspected (density, pH, alkaline reserve). If the results are lowered, you can improve the fluid parameters by adding ECO MPG-P fluid or concentrate. Operating experience shows that the lifespan of fluids can be significantly extended as a result of proper operation and topping up. In a larger system, corrosion protection should be checked more often by authorized services or the Vestoil Company. The anti-corrosion properties of ECO MPG-P water-based solutions decrease as the concentrate content of the solution decreases. Therefore, the ECO MPG-P volume concentration in intermediate coolants or heat carriers should not be lower than 33%. (resistance to freezing point -15°C.). The connectors must be made of silver or copper solder. Fluxes containing halogens cannot be used. The heating system cannot be made of hot-dip galvanized or galvanized elements (internally) because propylene glycol dissolves zinc with the formation of a large amount of deposits. The critical heat transfer coefficients of ECO MPG-P water-based solutions are only slightly different from those of standard tap water when the heat is transferred from heaters to the atmosphere. The amounts of heat transferred are also very similar in both cases. However, in the case of liquid-liquid heat exchangers, the amount of heat transferred decreases as the ECO MPG-P content in the solution with water increases.

ECO MPG-P solutions are characterized by higher (in comparison to water) viscosity and density. This means that their internal flow resistance in the system will also be higher. The charts developed by Vestoil show the parameters of the kinematic viscosity of solutions with different concentrations of ECO MPG-P concentrate and at different temperatures. Mixtures of ECO MPG-P with water also do not undergo phase separation.

■ **Technical data:**

List of plastics, elastomers and sealants **resistant to ECO MPG-P:**

- Low/high-density polyethylene LDPE, HDPE
- Modified polyethylene CPE (VPE)
- Polypropylene PP
- Polybutane PB
- Hard polyvinyl chloride uPVC
- Polytetrafluoroethylene PTFE
- Polyamide PA
- Non-foamed polyester resins UP
- Natural rubber NR
- Styrene-butadiene rubber SBR
- Butyl rubber IIR
- Olefin rubber EPDM
- Fluorocarbon elastomers FPM
- Polyacetals POM
- Nitrile rubber NBR
- Polychlorobutadiene elastomers CR
- Silicone rubber Si

Not resistant to ECO MPG-P are:

- phenol-formaldehyde resins, (Bakelite);
- urea formaldehyde resins,
- plasticized (foamed) PVC;
- polyurethane elastomers

■ **Safety and use:**

It was found that ECO MPG-P fluids can be used in systems for many years. However, the concentration of the basic measure should be inspected after a period of two or three years, depending on the type and load of the industrial system. The manufacturer gives a three-year warranty on its products. The Safety Data Sheet for the ECO MPG-P concentrate is an integral part of this description. It contains all necessary data regarding the safety of using the ECO MPG-P fluids and what to do in the event of a failure or leakage of the fluid. At the same time, we would like to inform you that propylene glycol, which is the base ingredient, is not included in the list of hazardous substances. The warranty period for liquids in closed packaging is 3 years from the date of manufacture. The service life in systems depends on many factors and materials from which the system is made. It is assumed that fluids in normal operating conditions work for about 3 years, ensuring proper corrosion and thermal protection. After this period, fluid density and overall appearance should be inspected. The fluid can only be topped up with a concentrate or ECO MPG-P fluid. Fluids in the operational version should not be further diluted with water. The fluid can be mixed with similar propylene glycol-based products from other manufacturers, however, due to the various chemical additives used, this is not recommended. Used ECO MPG-P fluids can be disposed of in accordance with local laws related to waste incineration plants or biological treatment plants. ECO MPG-P fluids as not classified as hazardous substances are not covered by the provisions of RID, ADR, ADN, IMDG and DGR.