

# Heat Transfer Fluids

**Food application**



# About Caltherm

**Caltherm® is a Caldic brand. Caldic is one of the world's leading full-service value-add solution providers for the premium life science and specialty chemicals markets. Our extensive range of high-quality thermal fluids have been developed using cutting-edge technology, and are based on the latest generation of mineral oils, synthetic oils and silicone-based oils.**

Offering excellent compatibility and seamless blending properties, Caltherm products can be smoothly incorporated into virtually any processing environment as an alternative or tailor-made heat transfer fluid. While capable of handling temperatures as low as -100 °C up to a high of +400 °C, Caltherm's reliable solutions fulfill efficiency, operational and safety needs and simultaneously address regulatory and environmental requirements.

The Caltherm product range provides solutions for use across processing industries, including pharmaceutical, food, chemical, oil & gas, solar power, and more. Whatever the set-up of your processing installation, choosing one of Caltherm's solutions, whether an existing formulation or one customized to your situation, will be a valuable investment for the future.



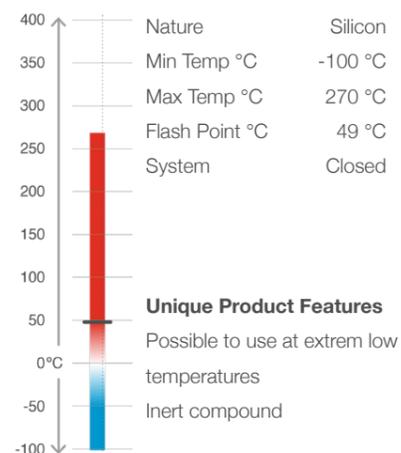
## Why choose Caltherm?

- Extensive range of high-quality thermal fluids
- Over 30 years expertise in HTF solutions
- Technical expertise on installation and reactivity issue between fluid and manufactured product
- Chemical fluid analysis with on-site testing leading to a diagnostic solution
- Thorough pre-cleaning of processing plant to ensure maximum effectiveness
- Future-proofing approach, including technical needs and regulatory support
- Solutions that are tailor-made for you and your challenge
- Alignment with all business units within your company
- Supports financial proposals and investments
- Service-oriented and personal approach
- Excellent aftercare services, today, tomorrow, and in the future

## Caltherm Solutions for freeze dryer application

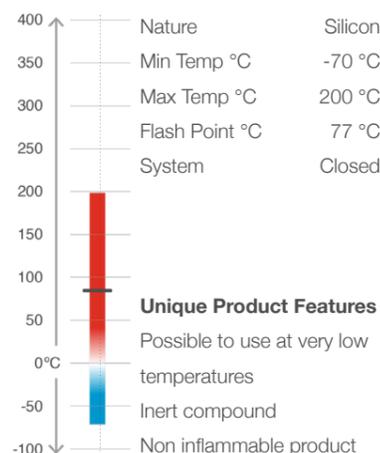
### Caltherm UBT

Fluid for extreme low temperature application



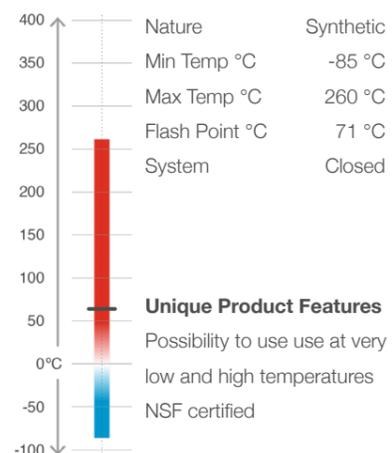
### Caltherm UBVI

Fluid extreme low viscosity at low temperature and ininflammable



### Caltherm CD12

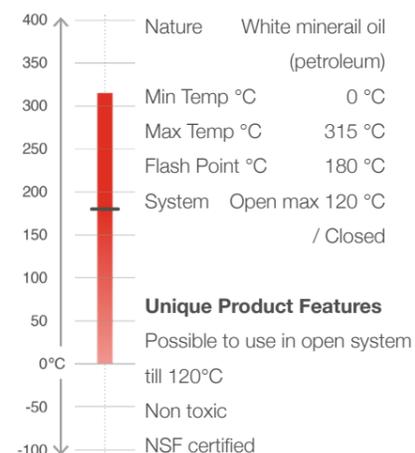
Synthetic fluid for cold and warm application



## Caltherm Solutions for food processing application

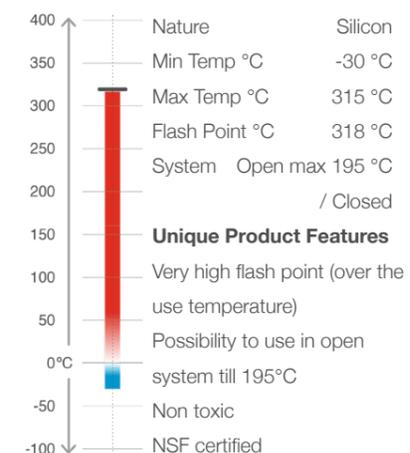
### Caltherm CXPFG

Fluid for high temperature system



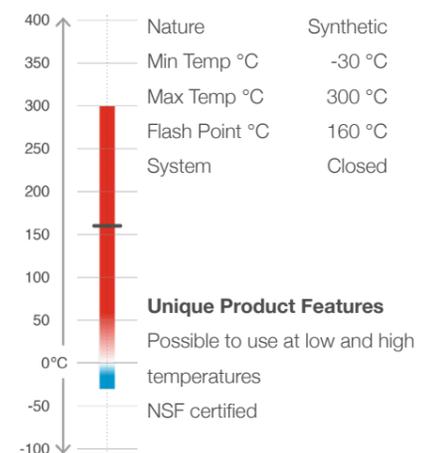
### Caltherm S10350 FG

Fluid for high temperature with very high flash point



### Caltherm SY2FC

Synthetic fluid for extreme temperatures applications



## Freeze dryer application

Freeze-drying is a dehydration technique that has the advantage of preventing microorganisms' development to ensure a long shelf life. The ideal heat transfer fluid for this application must allow the supply of energy without significant modification of its physical parameters regardless of the temperature. Caltherm's silicone technology fluids, such as Caltherm UBT, are perfect for this type of freeze drying process. This product is anhydrous and has a very low pour point with very low viscosities at low temperatures ensuring an excellent and long-life system performance.



## Food processing application

Food industry processes typically involve large temperature variations across different production stages. Caltherm offers a product range of synthetic or silicone-based anhydrous fluids that ensure excellent system performance at temperatures ranging from -100 °C to 300 °C. This innovative solution has viscosities that can be tailored to any type of process.



# Food application success story

A longtime Caltherm food ingredients customer was satisfactorily using a Caltherm mineral oil in their production processes. At the beginning of 2020, this customer decided to build a brand-new, innovative installation alongside their original food plant.

Due to updated regulatory requirements, this new installation had to operate with a heat transfer fluid flashpoint of 260 °C, which is significantly higher than the flashpoint of 220 °C which was used in the former process. The food plant technician contacted the Caltherm experts and asked that they determine the specific installation requirements that would ensure excellent system performances, while addressing both the updated regulatory requirements and environmental concerns. The Caltherm technical experts, using their long-standing experience, recommended the Caltherm S 10350, NSF registered, product with a flash-point at 320 °C.

Building further on a strong partnership with the customer and OEM (Original Equipment Manufacturer) in charge of the new installation, the Caltherm experts were able to help drive the efficiency and safety of the customer's new future-proof food plant. We were able to successfully deliver a solution that balanced safety requirements with environmental and economic considerations.

# Get in contact

The Caltherm team of technical experts, equipped with longstanding experience across several industrial sectors, can develop tailor-made solutions to meet specific installation requirements. Initially, the specialists will determine a baseline measurement via an objective analysis of the HTF currently used in your system. Following this, the outcomes of the lab analysis, combined with a site visit to assess the installation, generate a diagnosis which is the starting point to discuss and recommend a solution that meets your requirements - technical, sustainable, efficient, safety or cost-effective – today, and in the future.

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