

# Heat Transfer Fluids

**Application Chemical Processing** 



### **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 based on the latest generation of raw materials.

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.



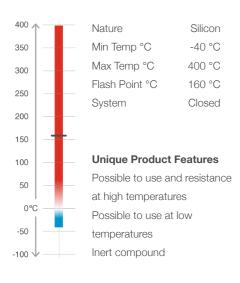
# Why choose Caltherm?

- 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 approach
- Excellent aftercare services, today, tomorrow, and in the future

### Caltherm chemical processing solutions

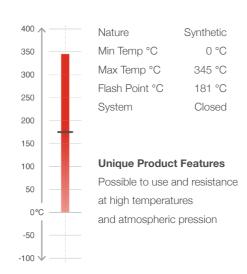
#### Caltherm 400

Fluid for high temperature and low viscosity



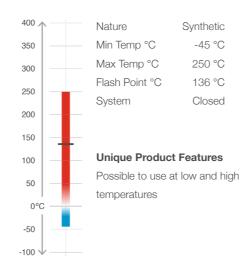
#### Caltherm C66

Synthetic fluid for very high temperature application



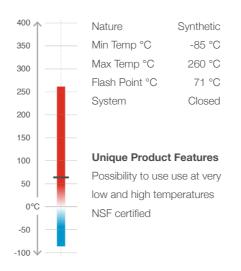
#### Caltherm CADX10

Synthetic fluid for extreme temperatures applications



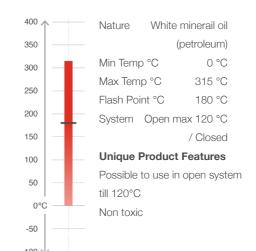
#### Caltherm CD12

Synthetic fluid for cold and warm application



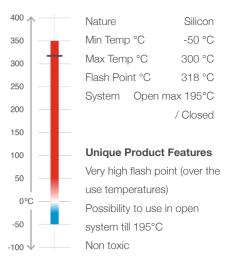
#### **Caltherm CXP**

Paraffin based fluid for warm system



#### Caltherm S 1050

Fluid for high temperature with very high flash point



# Chemical processing application

The chemical industry uses heat transfer fluids within the manufacturing process to control temperatures. The heat produced by industrial heaters is delivered by a heat transfer fluid to the synthesis reactors. Choosing the right heat transfer fluid is crucial. The selection of the correct heat transfer fluid depends on different parameters such as the volume in the installation, the position of the boiler and the diameter of the pipes.

Caltherm's high-tech thermal fluids ensure precise temperature control during synthesis reactions that generate exothermic or endothermic phenomena. By offering excellent resistance at high temperatures and adapting configuration thanks to low viscosity over a very wide temperature range of -100°C to 400°C, the Caltherm product secures a long lifetime, which makes it a sustainable and economically sound choice.

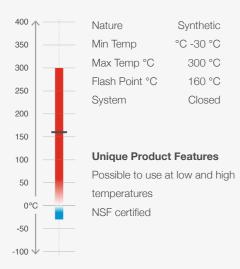


And with regulations for health, safety and the environment in mind, it's good to know that Caltherm's heat transfer fluids are chemically inert therefore ensuring low toxicity. Caltherm products can lower ignition risks, for

example, in synthesis processes where operating temperatures are around 260°C., Using a synthetic or silicone-based fluid with flashpoints higher than operating temperatures will reduce risks within and around the installations.

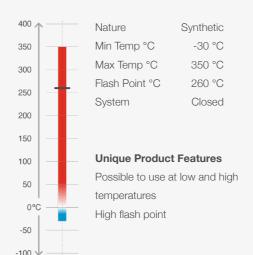
#### Caltherm SY2FC

Synthetic fluid for mixt temperatures application



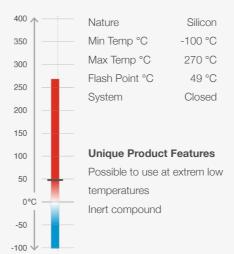
#### Caltherm SYN FC

Synthetic fluid for high temperature application at very high flash point



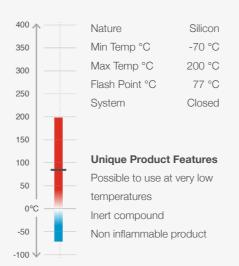
#### Caltherm UBT

Fluid for extrem low temperature application



#### Caltherm UBVI

Fluid extreme low viscosity at low temperature and inflammable



# Chemical application success story

A well-known chemical processing customer in the industry was satisfactorily using a synthetic heat transfer fluid based on benzyl toluene technology in their production processes. In 2019, due to updated regulatory requirements, to remain compliant the customer faced the challenge of replacing their heat transfer fluids within a 6 month timeframe.

An engineer of the customer reached out to the Calthern experts, and a technical diagnosis of the site followed, which enabled the Calthern experts to identify malfunctions linked to an obsolete design. Based on the results of the analysis, the Calthern experts suggested the solution was to clean the installation with the Calthern Clean 77 product and subsequently fill the installation with the new silicone technology fluid Calthern S1050, characteristic as non-toxic.

Since this product has a flashpoint of 318°C it meets the updated safety requirements as the customer temperature process is around 280°C. The Caltherm team successfully managed to clean and fill the system within the requested 6 months timeframe.

## 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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Caltherm is a Caldic Brand



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