

# Thermal Stability

## Thermally safe – from synthesis to the final customer

Knowledge about the thermal stability of a substance is generally indispensable. An untested substance may suffer quality loss during manufacturing, in the warehouse and during transport by temperatures which are too high and lead to unforeseeable hazards.

We offer the right tests and evaluations regarding the thermal stability of your samples for every phase of the product lifecycle:

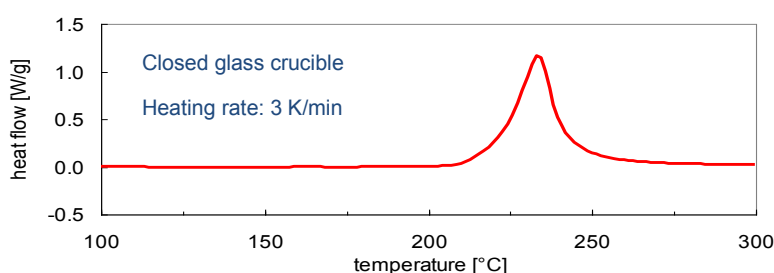
Research and Development on a "small" laboratory scale seldom takes place with evaluations of the thermal stability of unknown substances; although a DSC measurement with just 10 mg of sample can already clarify risks quickly and economically. In many cases we are already able to provide a limiting temperature  $T_{\text{exo}}$  for a safe handling.

Industrial processes require the assessment of larger amounts of substances and longer time periods. Adiabatic storage tests permit this in an ideal manner and provide a multitude of important characteristics.

The assessment of the decomposition kinetics provide the ADT<sub>24</sub> (adiabatic decomposition temperature over 24 h induction time) as well as the SADT (self-accelerating decomposition temperature).

In many cases, the limiting temperature  $T_{\text{exo}}$  can be set higher on this basis than after screening with DSC. The heat flow and the pressure profile provide valuable additional information to ensure a safe design and an economical operation.

The transport and the commercialization of substances have to comply with the UN transport guidelines and GHS/CLP. We determine the necessary characteristic data and advise during classification.



### Interested? Contact us!

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### Your benefit

- Safe temperature limits for substances and processes
- Fast and reasonably priced services, thanks to standardized
- Individual evaluations and classification of you samples and processes

### Our service offer

- DSC measurements as the basis for fast evaluations
- Adiabatic storage tests for detailed evaluations
- Testing of the deflagration ability under process conditions
- Classifications according to UN transport guidelines and GHS/CLP

