

Security / Plant & Process Safety

## Safety-relevant data

### Our services

In order to determine how raw and auxiliary materials, intermediates, byproducts and final products, reaction mixtures and residues will behave in chemical processes, we measure and evaluate all safety-relevant data. These indicate potential explosion and fire risks and allow us to predict the reaction characteristics of individual substances and substance mixtures. This information permits the design of efficient safety measures and the enhancement of process and plant safety in your business.

### Your advantages

- Our analyses ensure your compliance with the relevant plant safety requirements valid for the operators of chemical plants subject to the Seveso Directive.
- Our laboratory-based process safety analyses make it possible to identify potential hazard sources in advance, enabling you to proactively implement safety measures in your production units.
- Our laboratory chemists are also experts in plant safety and themselves perform HAZOPs. This ensures efficient and cost-effective laboratory testing.
- We are geared to the tight deadlines in your production units and perform all necessary testing flexibly and at short notice.

### Measuring safety-relevant data



Flammability is measured using EC method A.10

### Our strengths

We offer the complete portfolio of services for measuring safety-relevant data and assessing chemical processes around the clock. Our safety testing laboratory is accredited to DIN ISO 17025 and as a GLP testing facility. They are fully equipped with testing devices to analyze and assess the full range of industrial processes with respect to safety.

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### Service details

Our employees perform measurements and analyses and provide advice in the following areas, for example:

- Dust explosion testing (e.g. dust screening, hot storage, deflagration, explosion limits, minimum ignition energy)
- Calorimetric data (e.g. heat of reaction, gas volume measurement during reaction, reaction calorimetry in glass or pressure vessels, adiabatic reaction calorimetry, microcalorimetry, low temperature calorimetry, specific heat at constant pressure)
- Thermal stability data (e.g. screening DTA/DSC, long-term DTA, pressure measurements)
- Kinetic analysis (thermokinetic modeling of multistage reactions/decompositions using data from DTA/DSC measurements; simulation of thermal behavior under any ambient conditions – especially suitable for assessing the storage (storage stability) of critical substances)
- Testing of explosive substances in accordance with EU directives and UN guidelines
- Testing for transport classification and safety
- Materials characterization for material safety data sheets (e.g. flashpoint, ignition temperature, vapor pressure, boiling point)
- Assessment of processes and chemical reactions on the basis of measured data
- Advice on safe process operation and control (reaction, distillation, drying, storage and other unit operations)

### Contact

If you have any questions or would like further information about our services, please do not hesitate to get in touch.

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