

AKTS Software



Advanced Kinetics

Thermokinetics, Thermal Safety, Reaction Calorimetry, Migration Limits



What is AKTS software?

Designed by our long-term partner AKTS, Setaram uses their software ensuring a global solution for kinetic analysis, migration studies in packaging, and the determination of thermal safety.

AKTS software suite can be applied to the study of the thermal stability of substances, to the safety analysis of physical-chemical processes, and to the investigation of the safety and quality of packaged substances.



HIGHLIGHTS

Additional characteristics and behavior of materials

AKTS software provides a means of inferring additional characteristics and behavior of materials examined, based on conventional thermoanalytical measurements.

ACCURATE DETERMINATION

A key benefit of this software is the accurate determination of the thermal stability of products (shelf-life / transformation) for quantities, temperatures and time scales beyond those measured.

CRITICAL DATA INFORMATION

This provides critical data often difficult to obtain for reasons of time, cost and feasibility.



Thermokinetics

The main goal of AKTS-Thermokinetics Software Package is to facilitate kinetic analysis of DSC, DTA, TGA, EGA (TG-MS, TG-FTIR) data for the study of the thermal behavior of raw materials and products within the scope of research, development and quality assurance.





Reaction calorimetry

Chemical process safety knowledge is required, where processes are developed or performed. But many professionals do not have access to the appropriate expertise to interpret thermal data.

Therefore, AKTS has developed Reaction Calorimetry software dedicated to 'synthesis' or 'desired' reactions and techniques allowing them to be mastered at an industrial scale.





AKTS TS

Thermal safety

AKTS-Thermal Safety Software enables the prediction of the Time to Maximum Rate under adiabatic conditions (TMRad). Its calculation method extends applications to the thermal behavior under non-adiabatic

conditions. It enables the prediction of the heat accumulation process and the reaction progress in containers during storage or transportation. Key applications include the chemical, pharmaceutical and food industries. Users focus on self-reactive

chemicals, explosives and thermal hazards for dangerous goods.



Specific migration limits

The program SML helps users check the compliance of food packaging. It applies recognized diffusion models introduced in European legislation (EU legislation Plastics Directive 2002/72/EC.).





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