

Analysis

Analyses are performed for product quality control, for statistical process control, for quality assurance of raw materials, for characterization of new products developed in our Technology Center, and for technical service for our customers.

Equipped with state of the art instruments Chemtura Organometallics are able to run analytical methods developed and continuously improved by our analytical staff. We provide modern analytical service by operating quality control laboratories in the production plants and in the Technology Department. Different analytical methods and instruments allow us to identify and specify all our products. A modern LIMS (Laboratory Information Management Systems) allows us to handle analytical orders and safely store and archive results.

Analytical methods include:

- NMR (Nuclear Magnetic Resonance)- Spectroscopy
- IR (Infrared)-Spectroscopy
- GC (Gas Chromatography)
- GC-MS (Gas Chromatography - Mass Spectroscopy)
- ICP-OES (Inductively Coupled Plasma - Optical Emission Spectroscopy)
- ICP-MS (Inductively Coupled Plasma - Mass Spectroscopy)
- AAS (Atomic Absorption Spectroscopy)
- DSC (Differential Scanning Calorimetry)
- Various titration methods
- Determination of physical constants

Alkyl group composition and hydride content of reactive metal alkyls are analyzed by a quantitative determination of the reaction products after controlled decomposition reaction of the reactive compound. Determination of the chloride content and of alkoxy groups are additional methods which are applied to analyze corresponding metal alkyls.

Organometallics: Analysis

Most metal alkyls are hazardous substances which react spontaneously with oxygen or water. The reactive nature of our metal alkyl products require sophisticated sample preparation and handling techniques to ensure determination of reliable and precise results. Samples for analytical tests can be taken from laboratory containers under an inert atmosphere simply and safely by means of a dip tube or by using a special glass attachment. Detailed information on handling procedures and analytical methods are available on request. When required, our Technology Department develops new analytical methods.

Our facilities are ISO 9001 and ISO 14001 certified.