Description

This IR spectral database contains 595 infrared reference spectra of commercially available flame retardants. Flame retardants are chemicals used to modify the combustibility of the materials to which they are added. Flame retardants are generally divided into two types. Non-reactive compounds, also referred to as additive flame retardants, are simply mixed into the material. Reactive flame retardants react chemically and become an integral part of the material with which they are mixed. Some of the most desirable characteristics resulting from the addition of flame retardants to certain materials include increased ignition temperatures and a reduction in burning rates, flame spread and smoke evolution. Flame retardants may be inorganic or organic materials; often a combination of both is used.

Additional Information

Each spectrum is presented with the trade name of the material, the chemical description and physical data supplied by the manufacturer, the source of the sample used in preparing the spectrum and the method of sample preparation used for the scan. The following additional information will also be supplied when available: chemical composition, chemical and physical properties, and technique.

Classifications

- Aliphatic Hydrocarbons - 23
- Polyethylene - 5
- Polypropylene - 3
- Petroleum Hydrocarbon Resins - 12
- Polybutadiene - 2
- Aliphatic Hydrocarbon Copolymers - 1
- Plasticizers - 47
- Paraffins (Chlorinated) - 43
- Phosphoric Acids - 2
- Miscellaneous Plasticizers - 2
- Aromatic Hydrocarbons - 6
- Polystyrene - 6
- Chlorinated Hydrocarbons - 4
- Silicone Polymers - 16
- Polymers Containing Nitrile Linkage - 28
- Acrylonitrile-butyadiene-styrene Resins - 13
- Polyurethane & Urethane Prepolymers - 15
- Polyethers - 2
- Polyurethanes - 2
- Epoxy Resins - 31
- Unmodified Epoxy Resins - 4
- Modified Epoxy Resins - 27
- Aliphatic Vinyl & Vinylidene Polymers - 20
- Vinyl Chloride Homopolymers - 5
- Vinyl chloride Copolymers - 3
- Polyvinylidene Polymers (excluding nitriles) - 7
- Miscellaneous Vinyl Polymers - 3
- Phenoplasts - 3
- Phenolic Resins - 3
- Acrylic Copolymers - 6
- Polymers - 21
- Polymers - 6
- Modified Polymers - 7
- Polycarbonates - 6
- Alkyds - 2
- Polyamides - 10
- Polymides - 1
- Polysulfones - 2
- Halogenated Hydrocarbons - 19
- Compounds Containing Silicone - 12
- Esters - 1
- Oxides and Peroxides - 80
- Compounds Containing Halogen - 100
- Compounds Containing Sulfur - 10
- Compounds Containing Phosphorus - 77
- Anhydrides - 7
- Esters - 5
- Urea, Amide Cyanurates - 3
- Organometallics - 7
- Metals - 9
- Inorganic Salts - 17
- Miscellaneous Flame Retardant Materials - 36

This collection has been subject to the Sadtler Data Review Protocol™ to provide you with the highest standard in spectral data today. These rigorous qualifying procedures start at data acquisition and continue throughout the database development process.

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