
"Suppliers of magnetic fluids for research and industry"

Magneto-rheological Fluids

Magneto-rheological fluids are stable suspensions of magnetically polarisable micron sized particles suspended in a low volatility carrier fluid, usually a synthetic hydrocarbon. Liquids Research Limited produce magneto-rheological fluids that are capable of giving high shear stresses at low applied magnetic fields. The unique nature of this class of magnetic fluid allows dramatic changes in rheology to occur within the bulk of the fluid on application of a relatively modest magnetic field. The material can change from being fluid to solid almost instantaneously, the rheology of the material reverting to its original state upon removal of the field.

Magnetorheological fluids have existed for over fifty years. However, it is only now that fluids are available that are stable and give shear stresses that are adequate in demanding applications such as automotive damping. Liquids Research Limited produce thixotropic magneto-rheological fluids that are suitable for applications where high shear stresses are required, these applications include seat suspensions, vehicle suspension systems and exercise equipment.

We are happy to accept speculative enquiries about the range of materials and expertise available in our company. Enquiries are invited by telephone on +44 (0)1248 352204 / 354103 (Ask the operator for Liquids Research Limited on answer) or fax +44 (0)1248 352204 / 352497.