



## Summary of Properties of EMG Ferrofluids

### Water Based Ferrofluids: Typical Values

Fluid Type	Saturation Magnetization		Viscosity @ 27° C		Avg. Particle Size	Initial Susceptibility	Density (gm/ml)	Volume % Particle Concentration	pH	Nature of Surfactant
	Gauss	mT	cp	mPa·s						
EMG 308	66	6.6	<5	<5	100	0.25	1.05	1.2	8 - 9	anionic
EMG 408	66	6.6	<5	<5	100	0.26	1.07	1.2	~7	anionic
EMG 507	110	11	<5	<5	100	0.38	1.15	2.0	8 - 9	anionic
EMG 508	66	6.6	<5	<5	100	0.24	1.07	1.2	8 - 9	anionic
EMG 509	33	3.3	<5	<5	100	0.12	1.02	0.6	8 - 9	anionic
EMG 605	220	22	<5	<5	100	0.55	1.18	3.9	9 - 10	cationic
EMG 607	110	11	<5	<5	100	0.36	1.10	2.0	9 - 10	cationic
EMG 705	220	22	<5	<5	100	0.56	1.19	3.9	8 - 9	anionic
EMG 707	110	11	<5	<5	100	0.36	1.10	2.0	8 - 9	anionic
EMG 708	66	6.6	<5	<5	100	0.20	1.06	1.2	8 - 9	anionic
EMG 805	220	22	<5	<5	100	0.49	1.19	3.9	6 - 7	anionic
EMG 807	110	11	<5	<5	100	0.39	1.10	2.0	6 - 7	anionic
EMG 1111	286	28.6	<5	<5	100	0.65	1.18	5.1	5 - 7	n/a

#### Notes:

1. There is a tendency for magnetic particles to form aggregates in water-based ferrofluids. For best results, use within three months of purchase.
2. EMG 1111 is a slurry of un-coated particles in water

### Light Mineral Oil Based Ferrofluids: Typical Values

Fluid Type	Saturation Magnetization		Viscosity @ 27° C		Avg. Particle Size	Initial Susceptibility	Density (gm/ml)	Volume % Particle Concentration	Flash Point	Pour Point	Volatility (1 hr. @ 50° C)
	Gauss	mT	cp	mPa·s							
EMG 900	990	99	60	60	100	5.30	1.74	17.7	89° C	-80° C	9%
EMG 901	660	66	10	10	100	3.00	1.53	11.8	89° C	-84° C	9%
EMG 905	440	44	9	9	100	1.90	1.24	7.9	89° C	-94° C	9%
EMG 909	220	22	6	6	100	0.80	1.02	3.9	89° C	-94° C	9%
EMG 911	110	11	4	4	100	0.38	0.89	2.0	89° C	-94° C	9%