page 1 of 6 Issued 2005/11/1 Revised 2005/11/1 Rev. A Product name EMG1400 MSDS No. EMG1400 E

MATERIAL SAFETY DATA SHEET

[SECTION 1]: PRODUCT AND COMPANY IDENTIFICATION

1.1.Product Details
Product Name: Magnetic particles
Trade Name: EMG1400
Chemical Name: Proprietary product
Chemical Formula: Mixture
Molar Mass: N/A
Chemical Family: Dry iron oxide particles with surfactant
Manufacturer' s Code: None

1.2.Manufacturer Manufacturer's Name: Ferrotec Corporation Importers / distributor's Name & Address: 1-4-14 Kyobashi Chuo-ku, Tokyo, Japan Telephone Number: +81-3-3281-8808

Emergency Telephone number: +1 (800) 424-9300 / CHEMTREC(US only) +1 (703) 527-3887 / CHEMTREC (International)

Other product safety information: +1 (603) 883–9800 / Ferrotec (USA) Corporation (NH) +81–479–73–6752 / Ferrotec Corp. Ferrofluid Dept. (JAPAN) +49–7022–9270–0 / Ferrotec GmbH (Germany)

page 2 of 6 Issued 2005/11/1 Revised 2005/11/1 Rev. A Product name EMG1400 MSDS No. EMG1400 E

MATERIAL SAFETY DATA SHEET

[SECTION 2]: COMPOSITION / INFORMATION ON INGREDIENTS

The precise composition of this mixture is proprietary information.

A more complete disclosure will be provided to a physician or a nurse in the event of a medical emergency. All components are registered each in Chemical Abstracts Service.

Composition		Proportion	Exposure	Toxicity
		%(by weight)	Limit	Data
Α	Iron oxide	77.0 - 83.0	Not	Not
В	Surfactant	17.0 - 23.0	applicable	applicable

[SECTION 3]: HAZARDS IDENTIFICATION

Most important hazards: None

Potential health effects

Ingestion: No significant health hazards identified.

Eye contact: No significant health hazards identified.

Skin contact: No significant health hazards identified.

Inhalation: Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

[SECTION 4]: FIRST AID MEASURES

Ingestion: Consult a physician for treatment.

Eye contact: Flush with water and consult a physician for treatment.

Skin contact: Wash with soap and water.

Inhalation: Move affected person to fresh air and consult a physician for treatment.

Notes to physician: A more complete disclosure will be provided to a physician in the event of

a medical emergency.

[SECTION 5]: FIRE FIGHTING MEASURES

Flammable properties

Flash point: Not applicable

Flammable limits: Not applicable

Extinguishing Media: Not applicable

Fire fighting instruction: Not applicable

page 3 of 6 Issued 2005/11/1 Revised 2005/11/1 Rev. A Product name EMG1400 MSDS No. EMG1400 E

MATERIAL SAFETY DATA SHEET

[SECTION 6]: ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Wash surface with soap and water.

[SECTION 7]: HANDLING AND STORAGE

Handling: Ordinary care in handing chemical substances. Wash hands after handling.

Storage: Keep in a dark and a cool place.

Other precautions: Avoid contamination of tobacco products. Users should be aware that a very small percentage of the population may display unexpected allergic skin reactions to otherwise innocuous industrial chemicals and raw material.

[SECTION 8]: EXPOSURE CONTROLS / PERSONAL PROTECTION

- a. Exposure Limit: No experience on over exposure.
- b. Engineering measurement: N/A
- c. Personal protection

Respiratory protection: Not required.

Ventilation: Not required.

Hand protection: Rubber or plastic gloves to prevent prolonged or repeated contacting with

skin.

Eye Protection: Safety glasses.

Other Protective Equipment: Not required.

page 4 of 6 Issued 2005/11/1 Revised 2005/11/1 Rev. A Product name EMG1400 MSDS No. EMG1400 E

MATERIAL SAFETY DATA SHEET

[SECTION 9]: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown and / or black particles Odor: Mild faint Solubility: Stable Boiling Point(⁰C): N/A Melting Point (⁰C): N/A Vapor Pressure (kPa at 20 ⁰C): N/A Percentage Volatiles: None Evaporation Rate : N/A Vapor Density (Air=1): N/A Density (g/cm³) : No data Flash point: N/A Auto ignition temperature: N/A Flammable limit (%): N/A Other properties if applicable: N/D

[SECTION 10]: STABILITY AND REACTIVITY

Conditions to avoid: **Pyrolysis** Stability: **Stable at normal temperatures and pressure**. Material to avoid: **Water soluble materials, i.e. acid or base**. Hazardous docomposition products: **None**. Hazardous polymerization: **will not occur**

[SECTION 11]: TOXICOLOGICAL INFORMATION

Toxicity Data: **No data** Carcinogen city: **No data** Reproductive Effect: **No data** Effects of overexposure: **No data** Chronic effects: **No data** Target organs: **No data** Medical Conditions Generally Aggravated by exposure: **No data**

page 5 of 6 Issued 2005/11/1 Revised 2005/11/1 Rev. A Product name EMG1400 MSDS No. EMG1400 E

MATERIAL SAFETY DATA SHEET

[SECTION 12]: ECOLOGICAL INFORMATION

Mobility: **No data** Bioaccumulation: **No data** Biodegradability: **No data** Aquatic Toxicity: **No data**

[SECTION 13]: DISPOSAL CONSIDERATIONS Comply with all federal, state and local regulations. Do not dump this product into sewers, on the ground or into any body of water.

[SECTION 14]: TRANSPORT INFORMATION

This product is not regulated as the United Nations Dangerous Goods. Hazard Class: N/A UN No: N/A Packing Group: N/A

[SECTION 15]: REGULATORY INFORMATION

All components are in compliance with Pollutant Release and Transfer Register of Japan.

Composition		CAS No.	TSCA	EINECS	OSHA
A	Iron oxide	Trade	Registered	Registered	
		secret			Not
в	Surfactant	Trade	Registered	Not	listed
		secret		registered	

These components do not contain any chemical subject to the reporting requirements of Section 313 of Title of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372.

page 6 of 6 Issued 2005/11/1 Revised 2005/11/1 Rev. A Product name EMG1400 MSDS No. EMG1400 E

MATERIAL SAFETY DATA SHEET

[SECTION 16]: OTHER INFORMATION

We believe the statement, technical information and recommendations contained here in are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.

This material is not sold for use in products for which prolonged contact with skin or implantation in the human body is intended. We do not recommend this material as safe and effective for such uses and assumes no liability for any such use.