

## MATERIAL SAFETY DATA SHEET

Approved by US Department of Labor  
"Essential Similar" to Form OSHA-174  
(COMPLIES WITH HAZARD COMMUNICATIONS STD. 29 CFR 1910.1200)

---

### SECTION 1

Fluxtrol Inc.  
1388 Atlantic Boulevard  
Auburn Hills, MI 48326-1572

Telephone Number: 248.393.2000  
Fax Number: 248.393.0277

Revision Date: 3/13/14  
Prepared by: R. Ruffini – Product Compliance Coordinator

Supersedes:

### PRODUCT IDENTIFICATION

TRADE NAME: FLUXTROL® "100"  
USE: Shapes for subsequent fabrication used for magnetic flux control in electromagnetic applications

---

### SECTION 2

**Composition:** Iron Powder with binder

#### NON-HAZARDOUS INGREDIENTS

Identification	Cas No.	Concentration	OSHA/PEL	TLV
Iron, binder	7439-89-6	75-98	N/A	N/A

---

### SECTION 3

#### HEALTH HAZARD DATA

**ACUTE OR IMMEDIATE EFFECTS:** Routes of entry and systems.

**INGESTION:** Although not a probable route of exposure; ingestion would be considered relatively harmless from a single incident of ingestion.

**SKIN:** Possible irritation or dermatitis in some individuals upon prolonged contact. Repeated skin contact may cause drying of the skin, which may lead to dermatitis.

**EYE:** Iron in the eye causes rust rings in the cornea associated with the irritation.

**INHALATION:** Shapes not respirable

Fluxtrol Inc.

MATERIAL SAFETY DATA SHEET

---

**SECTION 4****EMERGENCY FIRST AID**

**INGESTION:** Unlikely – induce vomiting and contact a physician  
**SKIN:** Flush with soap and water  
**EYES:** Flush with plenty of water – contact a physician

**NOTE TO PHYSICIAN:** Inhaling fumes of thermally decomposing products can induce temporary influenza like symptoms which are described as “polymer fume fever”; these symptoms include fever, cough and malaise.

**CHRONIC EFFECTS:** NONE KNOWN

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY THIS MATERIAL:** NONE KNOWN

---

**SECTION 5****FIRE AND EXPLOSION HAZARD DATA**

**UNUSUAL FIRE, EXPLOSION HAZARDS:** Toxic fluorine compounds evolve in fire. Strong heat sparks or flame will initiate rapid oxidation, which in the presence of sufficient air will proceed spontaneous to glow red. May ignite other combustibles. Should inhalation occur during thermal decomposition, remove from exposure – provide fresh air, if coughing, wheezing or shortness of breath occur-contact a physician.

**HAZARDOUS COMBUSTION PRODUCTS:** NONE KNOWN

**SPECIAL FIRE FIGHTING INSTRUCTIONS:** Fire fighters and others exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.

**EXTINGUISHING MEDIA:** Carbon Dioxide

---

**SECTION 6****ACCIDENTAL RELEASES**

**SPILLS OR RELEASE:** Clean up by sweeping to prevent falls.

---

**SECTION 7****STORAGE CONDITIONS**

**DRY STORAGE:** Keep shapes in dry area to prevent oxidation.

Fluxtrol Inc.

**MATERIAL SAFETY DATA SHEET**

---

**SECTION 8****PROTECTION INFORMATION**

**EYE:** Safety glasses are recommended to prevent particulate matter from entering eyes while grinding or machining

**SKIN:** Protective gloves are recommended when handling FLUXTROL® to prevent hand oils from being deposited onto shapes

**VENTILATION:** Local exhaust at processing equipment to keep particulates below 15 mg/m<sup>3</sup>, the OSHA limit for nuisance dusts. Grinding and machining of parts should be reviewed to assure that particles levels are kept at recommended levels.

**RESPIRATOR:** None under normal processing, if ventilation is adequate

NOTE: Enforce no smoking policy in areas where material is machined. Wash hands after handling to avoid transfer of dust onto cigarettes and tobacco.

---

**SECTION 9****PHYSICAL/CHEMICAL DATA**

**APPEARANCE:** Components may be in various shapes. Metallic color.

**ODOR:** Essentially odorless.

**MELTING POINT:** 1535°C / 2795 °F

**SOLUBILITY IN WATER:** Insoluble.

**VOLATILE CONTENT %:** <1%

**SPECIFIC GRAVITY:** 6.7-6.9 g/cc

---

**SECTION 10****HAZARDOUS REACTIVITY**

**STABILITY AT ROOM TEMPERATURE:** Stable.

**MATERIALS TO AVOID:** Strong acids and strong oxidizers.

---

**SECTION 11****TOXICOLOGICAL INFORMATION**

**CHRONIC TOXICITY:** FLUXTROL® does not appear to possess any toxicological properties.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** Thermal decomposition products of FLUXTROL® have been reported to be irritating to the mucus membranes and respiratory tract.

**CARCINOGENICITY:** NONE KNOWN.

Fluxtrol Inc.

**MATERIAL SAFETY DATA SHEET**

---

**SECTION 12**ECOLOGICAL INFORMATION

**AQUATIC TOXICITY:** Toxicity is expected to be low based on insolubility of FLUXTROL® in water.

---

**SECTION 13**DISPOSAL

**SPILL OR RELEASE:** Clean up by wet sweeping to minimize dust exposure.

**WASTE DISPOSAL:** Landfill or incineration in compliance with federal, state and local regulations.

---

**SECTION 14**TRANSPORT INFORMATION

**DOT HAZARD CLASS:** N/A

**SHIPPING NAME:** N/A

---

**SECTION 15**

## REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION  
(SARA TITLE III – TOXIC CHEMICALS LIST)

This product contains the hazardous chemical/s mentioned in section 2 of this MSDS for routine annual "TOXIC CHEMICAL RELEASE REPORTING" of section 313 of the Emergency Planning and Community-Rights-To-Know Act of 1986 and 40 CRF 372.

---

**SECTION 16**MISCELLANEOUS INFORMATION

This information set forth herein has been gathered from standard reference materials and/or supplier test data and it to the best knowledge and behalf of Fluxtrol Manufacturing, Inc. are accurate and reliable. Such information is offered solely for your consideration, investigation and verification, and it is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones, which exist. Fluxtrol Manufacturing, Inc. makes no warranties, expressed or implied, with respect to the use of such information or the use of the specific material identified herein combination with any other material or process, and assumes no responsibility therefore.

N/A = Not Applicable

**END OF MSDS**