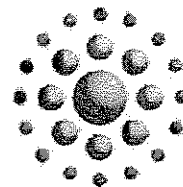


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**RockTron**

## MagTron 70 - Material Safety Data Sheet

### Identification of Substance and Company Undertaking

Product Name:	MagTron 70
Synonym(s):	Magnetite, Fly Ash Derived Magnetite
Chemical Name:	None
Molecular Formula:	Not Applicable
Product Use:	Mineral Filler, Dense Media
Company Undertaking:	RockTron Ltd
Address:	See above
Emergency Telephone Number:	+44(0)117 937 6890

### Composition/Information on Ingredients

**Chemical Composition:** MagTron 70 is predominantly composed of inert, vitrified, amorphous ferro-aluminate/silicate material. It is obtained by the beneficiation of pulverised fuel ash (PFA) originating from the combustion of coal in coal fired power stations. MagTron 70 also contains some iron oxides such as magnetite ( $Fe_3O_4$ ) and maghemite (an iron depleted form of magnetite). It is obtained by the beneficiation of pulverised fly ash (PFA) originating from the combustion of coal.

**Hazardous Components:** This product is not considered to have any hazardous components, but good hygiene and housekeeping standards should always be observed.

### Hazardous Identification

This product is not considered to be especially hazardous, although long-term exposure to iron oxide fumes or dusts has been associated with a benign lung condition known as siderosis which is observable as an X-ray change. No physical impairment of lung function has been linked to siderosis.

### First Aid Measures

**Skin:** Wash contaminated areas of the body with soap and water as soon as practically possible.

**Eyes:** If the substance has entered the eyes, then irrigate with emergency eye wash solution (if available) or clean water for at least 30 minutes. Obtain medical advice if redness or soreness persists.

**Inhalation:** If inhalation of the dust causes irritation of the nose or coughing, remove the patient to fresh air. Keep warm and at rest. Carefully remove any excess dust from nasal passages and rinse mouth out with water until clear. If symptoms persist, seek medical advice.

**Ingestion:** There are no known adverse effects. Wash mouth out with water and give water to drink. Do not induce vomiting.

In all cases, should exposure be excessive or symptoms persist, seek medical advice.

### Fire Fighting Measures

**Conditions:** This product is not combustible.

**Explosion Hazards:** No risk of explosion.

**Auto-ignition Temperature:** N/A.

**Combustion Products:** None.

**In Case of Fire:** N/A.

**Special Fire Fighting Procedures:** N/A.

### Accidental Release Measures

**Environmental Effects:** None expected, but prevent entry into drains and water courses.

**Clean Up Methods:** Clean up spills with vacuum system and prevent dispersing dust into the air (water spray can reduce potential for dust blow).

**Disposal Method:** Can be disposed of in a licensed facility.

### Handling Precautions

**Handling:** Avoid creating airborne dust wherever possible. Good handling and housekeeping practices should be followed to minimise spills, airborne dust and accumulation of dusts on exposed surfaces. Adequate engineered local exhaust ventilation (LEV) is recommended to prevent workers exposure to dust. Appropriate respirators, gloves and eye protection are recommended to prevent exposure to dust.

**Storage in Dry Form:** Store at ambient temperature and pressure. Store products dry in containers, silos or in sealed bags.

**Transporting in Dry Form:** Transport in sealed bags, tankers or similar units.

**Classification and Transport:** Not classified as dangerous under the Classification, Packaging and Labelling of Dangerous Substances Regulations. Not classified as hazardous for road, rail, sea or air transport.

### Exposure Controls/Personal Protection

**Exposure Limits:** None available.

**Control Measures:** Engineering control measures should be used wherever practicable to prevent and control dust generation and exposure.

**Protective Clothing:** To prevent skin irritation, gloves, overalls and boots should be worn. Change heavily contaminated clothing as soon as possible and launder before further use. Wash any contaminated skin with soap and water.

**Respiratory Protection:** Preferably use engineering control measures, but where airborne dust concentrations are likely to exceed the aforementioned exposure limits then respirators appropriate to the material and/or concentration should be used. The use of respiratory equipment must be strictly in accordance with the manufacturers instructions and the

statutory requirements governing its selection and use.

**Eye Protection:** Use safety glasses or goggles for any type of handling. Dust tight goggles are recommended where eye contact or dusty conditions may occur. Contact lenses should not be worn, as they may contribute to severe eye injury.

### Physical and Chemical Properties

**Appearance:** Black powder.

#### Physical Properties:

Odour	Virtually none
Boiling point	N/A
Melting point	>1200°C
Specific Gravity	3-4
Solubility in Water	Negligible
Alkalinity	N/A
Flash Point	N/A
Auto-Ignition Temp	N/A
Upper Flam Limit	N/A
Lower Flam Limit	N/A
CAS #	68131-74-8

#### Basic Chemical Composition:

Component	Average % (w/w)
SiO <sub>2</sub>	15-20
Al <sub>2</sub> O <sub>3</sub>	5-10
CaO	2-3
Fe <sub>2</sub> O <sub>3</sub>	60-70
K <sub>2</sub> O	0.5-1.5
MgO	0.5-1.5
Na <sub>2</sub> O	0.1-0.5
TiO <sub>2</sub>	0.1-0.5
Mn <sub>3</sub> O <sub>4</sub>	0.1-0.5
P <sub>2</sub> O <sub>5</sub>	0.1-0.3
SO <sub>3</sub>	0.1-0.3

Note: The figure for SiO<sub>2</sub> does not refer to free silica but silicon present as amorphous silicates of varying compositions. Crystalline silica content determined by XRD is <5%, although this is not thought to be present as discrete silica. Cristobalite content is below detection limit for XRD of 0.3%.

#### Stability and Reactivity

**Stability:** Stable under normal conditions of storage, shipment and use.

**Incompatibility:** None known.

**Reactions:** None known.

**Polymerisation:** Will not occur.

#### Toxicological Information

**Irritancy:** Dry product will have little effect on skin. Prolonged or repeated contact with moist product can cause abrasion and irritant dermatitis.

**Carcinogenicity:** Not considered to be carcinogenic.

**Reproductive Toxicity:** No clinical evidence.

**Teratogenicity:** No clinical evidence.

**Sensitisation:** No clinical evidence.

**Mutagenicity:** No clinical evidence.

**Synergistic Materials:** None known.

**Animal Toxicity Data:** None available.

### **Ecological Information**

**Mobility, persistence and degradability, bio-accumulation potential and aquatic toxicity:** This material is not harmful to the environment in its original state. These products have no known eco toxic effects in the existing patterns of production, handling, storage and use.

### **Disposal Considerations**

PFA is included in the European Waste Catalogue but is not hazardous material as determined by the EC Hazardous Waste List (Directive 94/904/EC).

### **Transport Information**

Not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### **Regulatory Information**

**Classification and Labelling According to 1999/45/EC**

**Risk Phrases:** R37/38 Irritating to respiratory system and skin, R41 risk of serious damage to eyes, R43 May cause sensitisation by skin contact.

**Safety Phrases:** S2 Keep out of reach of children, S22 Do not breath dust, S24/25 Avoid contact with eyes and skin, S26 In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice, S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

**Hazard Label Data:** These products are not classified as dangerous for supply in the UK.

**EC Directives:** 94/3/EC, the European Waste Catalogue.

**Statutory Instruments:** Health and Safety at Work Act 1974, Consumer Protection Act 1987, Environmental Protection Act 1990, Control of Substances Hazardous to Health 1994, Waste Management – The Duty of Care, Personal Protective Equipment at Work Regulations 1992.

**Guidance Notes:** Occupational Exposure Limits EN/40/2005, HSE Guidance Notes EH26, EH40.

### **Other Information**

Risk and safety phrase codes were obtained from the International Programme on Chemical Safety website on <http://www.cdc.gov/niosh/ipcs/icstart.html>

Prepared in accordance with Directive 91/155/EEC.

Section headings conform to regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18-12-06 concerning Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

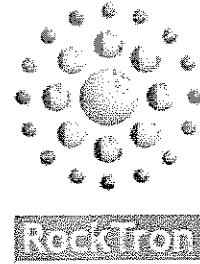
**Date Prepared/Revised:** 23 January 2010.

This product is supplied by RockTron Ltd on the understanding that it will be used in the manner and for the purpose specified in the data sheet, the user having taken all precautions stipulated. If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using this product is provided with the information on this sheet.

If you are an employer, it is your duty to inform your employees and others who may be affected of any of the hazards described in this sheet and any precautions that should be taken. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in a individual operation to instruct employees and develop procedures for a safe work environment.

This information is, to the best of our knowledge and belief, accurate. Since the conditions of handling and use are beyond our control, however, we make no guarantee of results and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

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 Yorkshire  
 WF11 0BB  
 United Kingdom  
 Tel: +44 (0)1977 662237



## PRODUCT DATA SHEET

RockTron Product Name		MagTron 70	
Sample Description		Ferro-aluminate/silicate, magnetite, maghemite	
Moisture Content		<0.5%	
Particle Specific Gravity		3.4-3.6g/cm <sup>3</sup>	
Particle Size Distribution d <sub>97</sub>		200µm	
Particle Size Distribution d <sub>10</sub>		18µm	
Median particle size d <sub>50</sub>		65µm	
Particle Shape		Spherical	
<b>Typical Chemical Analysis</b>			
SiO <sub>2</sub>	18-23%	BaO	<0.1%
Al <sub>2</sub> O <sub>3</sub>	10-13%	Cr <sub>2</sub> O <sub>3</sub>	<0.1%
Fe <sub>2</sub> O <sub>3</sub>	57-68%	V <sub>2</sub> O <sub>5</sub>	<0.1%
K <sub>2</sub> O	0.6-0.9%	ZrO <sub>2</sub>	<0.05%
CaO	2-4%	ZnO	<0.1%
MgO	1-3%	S <sub>total</sub>	<0.2%
TiO <sub>2</sub>	0.4-0.5%	SrO	<0.05%
Na <sub>2</sub> O	0.1-0.5%	Mn <sub>3</sub> O <sub>4</sub>	0.2-0.3%
P <sub>2</sub> O <sub>5</sub>	<1.0%		

