

# SAFETY DATA SHEET

Ceramic (Hard Ferrite) Magnets

## Section 1: Identification

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Ceramic-5, Ceramic-7, Ceramic-8, Ceramic-9, Ceramic-10, Ceramic-11 & all sub-grades

**1.2. Intended Use of Product:** permanent magnet

### 1.3. Name, Address, and Telephone of the Responsible Party:

Allstar Magnetics  
 15100 NE 65th Street, Suite 170  
 Vancouver, WA 98682  
 1-800-949-8950  
<https://allstarmagnetics.com>

**1.4 Emergency Telephone Number:** Within USA and Canada 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

## Section 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture Classification (GHS-US)

Not Applicable. Semi-finished and finished products constitute manufactured articles under the terms of the REACH Regulation (EC) No 1907/2006. For articles, there is no obligation to classify according to CLP-Regulation.

**HMIS Rating** [0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)]: Health: 1; Flammability: 1; Instability: 0; Special Hazards: None

### 2.2. Label Elements GHS-US Labeling

No labeling applicable

### 2.3. Other Hazards

The magnetisms of ceramic magnets are not extremely powerful. But big block magnets may cause injury. Fingers and other body parts can be pinched between two large magnets. With large magnets, injuries of this type can be severe. Also, may affect some kinds of electronics or other implanted medical devices.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## Section 3: Composition/ Information on Ingredients

### 3.1. Substance

Not applicable

**3.2. Mixture:** The classifications below reflect the classification of each pure substance respectively and are intended for information only

| Material or Component | Formula                        | Weight %   |
|-----------------------|--------------------------------|------------|
| Iron Oxide            | Fe <sub>2</sub> O <sub>3</sub> | 82 – 86%   |
| Strontium Carbonate   | SrCO <sub>3</sub>              | 13 – 17%   |
| Calcium Carbonate     | CaCO <sub>3</sub>              | 0.4 – 1.2% |
| Silica Dioxide        | SiO <sub>2</sub>               | 0.5 – 1.0% |
| Aluminum Oxide        | Al <sub>2</sub> O <sub>3</sub> | 0.2 – 0.8% |

## Section 4: First-Aid Measures

### 4.1. Description of First Aid Measures

**First-aid Measures General:** If medical advice is needed, have product SDS at hand.

**First-aid Measures After Inhalation:** Use NIOSH approved respirator when TLV is exceeded. If inhaled, move to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** Protective gloves are recommended when handling magnetized part or parts which may have sharp edges. Foreign bodies which have penetrated the skin must be removed and the wound cleaned thoroughly.

Prolonged skin contact may cause irritation or allergenic dermatitis, especially for individuals with nickel allergy. In the case of contact with chips or dust from a broken magnet, brush off powders and wash well with soap and water

**First-aid Measures After Eye Contact:** Eye Protection: Use safety glasses or goggles when handling magnets. After eye contact, immediately rinse with water for a prolonged period (at least 15 minutes) while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Ingestion:** If swallowed, If a magnet is swallowed, seek medical attention immediately. If multiple magnets are ingested, magnets can stick together through intestinal walls, causing serious infections and death. Seek immediate medical attention. Information for Doctors: Ingestion of multiple magnets can pose a serious risk. Consider consulting the algorithm presented in, "Management of Ingested Magnets in Children," (Hussain et al., 2012).

**4.2. Most important symptoms and effects, both acute and delayed**

**4.3. Most important symptoms and effect, both acute and delayed.** No further relevant information or indication of any immediate medical attention and special treatment available

**4.4. Indication of Any Immediate Medical Attention and Special Treatment Needed**

If medical advice is needed, have product SDS at hand.

### Section 5: Fire-Fighting Measures

**5.1. Extinguishing Media**

**Suitable Extinguishing Media:** Extinguishing agents must be adapted to the environment. Noncombustible, dry chemicals without oxygen compounds or sand should be used.

**5.2. Special Hazards Arising From the Substance or Mixture** No further relevant information available.

**Explosion Hazard:** Product itself is not explosive but if dust is generated, dust clouds suspended in air can be explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**5.3. Advice for Firefighters**

**Firefighting Instructions (Protective Equipment):** No special measure required.

### Section 6: Accidental Release Measures

**6.1. Personal Precautions, Protective Equipment and Emergency Procedures:** No special measures required.

**6.2. Environmental Precautions:** No special measures required.

**6.3. Methods and Material for Containment and Cleaning Up:** Sweep up dust and store in water slurry or sealed containers utilizing inert atmosphere such as argon or nitrogen to prevent spontaneous combustion..

**6.4. Reference to Other Sections**

See heading 7 for Safe Handling Section

See heading 8 Exposure Controls and Personal Protection.

See heading 13 for Disposal Information

### Section 7: Handling and Storage

**7.1. Precautions for Safe Handling:** Large magnets can attract to other magnets and other ferromagnetic materials such as iron or steel. Strong attractive forces can cause injury. Impacts of magnets can eject chips or bits of magnet material at speed – eye protection should be used.

**7.2. Additional Hazards When Processed:** Dry Mechanical Processing: This processing of rare earth permanent magnet alloys is permitted only under special safety precautions because dusts which are capable of self-heating or pyrophoric dusts with a tendency to explode may be produced. Use NIOSH approved respirator when TLV is exceeded.

**Conditions for Safe Storage, Including Any Incompatibilities:** Please keep magnetized magnets away from computers, displays and magnetic storage devices, like floppy discs, magnetic tapes or credit cards as it can destroy or alter the magnetic data. *People with heart pacemakers must keep away from magnetic fields.*

**Storeroom and Receptacle Requirements:** Store in dry location free of corrosive atmosphere. Keep away from magnetic objects such as iron, cobalt or nickel and high energy magnetic fields.

### Section 8: Exposure Controls/Personal Protection

**Additional Information about Design of Technical Systems:** Provide filtered ventilation of working area for all processing steps. Suitable breathing apparatus must be used (see personal safety equipment) for repair and maintenance work on air handling systems, especially during filter changes.

**8.1. Control Parameters:** This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions. No engineering controls are necessary. Protection of hands: Avoid repeated and prolonged contact with the skin, especially if user has known nickel allergies. Protective gloves may be used.

**8.2. Exposure Controls**

**Appropriate Engineering Controls:** N/A

**Hand Protection:** Avoid repeated and prolonged contact with the skin, use protective gloves, especially when handling magnetized parts or parts which may have sharp edges. Preventive skin protection by use of skin protecting agents is recommended.

**Eye Protection:** Safety goggles should be worn when handling magnetized magnets. Keep mechanical/electrical instruments which may be damaged by high magnetic fields at some distance away from large block magnets.

**Respiratory Protection:** During metal processing, . If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

**Environmental Exposure Controls:** Ensure adequate ventilation, especially in confined areas.

## Section 9: Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

*Note: The physical and chemical properties of this section refer to the unplated permanent magnet alloy. No values are available for the coating itself.*

|  |   |
|--|---|
| Physical State                         | : Solid   |
| Appearance                             | : parts   |
| Color                                  | : Metallic, Silvery Luster                                |
| Odor                                   | : Odorless.   |
| Odor Threshold                         | : No data available                                       |
| pH                                     | : No data available                                       |
| Evaporation Rate                       | : No data available                                       |
| Melting Point                          | : 1200°C°   |
| Freezing Point                         | : No data available                                       |
| Boiling Point                          | : > 1500°C  |
| Flash Point                            | : No data available                                       |
| Auto-ignition Temperature              | : No data available                                       |
| Decomposition Temperature              | : No data available                                       |
| Flammability (solid, gas)              | : No data available                                       |
| Vapor Pressure                         | : NIL   |
| Relative Vapor Density at 20 °C        | : No data available                                       |
| Relative Density                       | : No data available                                       |
| Density                                | : No data available                                       |
| Solubility                             | : Water: Insoluble  |
| Partition Coefficient: N-octanol/water | : No data available                                       |
| Viscosity                              | : No data available                                       |
| Explosive Properties                   | : Omitted (in the provided form). See Section 2 and/or 7. |
| Oxidizing Properties                   | : No data available                                       |

**9.2. Other Information** No additional information available

## Section 10: Stability and Reactivity

10.1 Reactivity: Hazardous reactions will not occur under normal conditions.

10.2 Chemical Stability: Product is stable.

10.3 Possibility of Hazardous Reactions: Dust in air.

10.4 Conditions to Avoid: Not Relevant.

10.5 Incompatible Materials: Fine powders are incompatible with air, oxygen, halogenated hydrocarbons with strong oxidizers. Avoid acids and other oxidizing agents.

10.6 Hazardous Decomposition Products: No dangerous decomposition products known.

## Section 11: Toxicological Information

### 11. Information On Toxicological Effects

The products compounds are of low to moderate toxicity. Roughly 1/2 of a magnet is composed of iron. Inhalation overexposure of iron dust may cause siderosis, a benign pneumoconiosis.

## Section 12: Ecological Information (non-mandatory)

### 12.1 Toxicity

**12.2. Persistence and Degradability:** No further relevant information available

**12.3. Bio accumulative Potential:** No further relevant information available

**12.4. Mobility in Soil:** No additional information available: No further relevant information available

**12.5. Other Adverse Effects:** No additional information available

### Section 13: Disposal Considerations (non-mandatory)

#### 13.1. Waste treatment methods

Dispose in accordance with federal, state and local regulations.

Large, powerful magnets may be demagnetized with high temperatures before disposal to prevent possible handling injury.

### Section 14: Transport Information (non-mandatory)

#### Transport/Additional Information

- 14.1. **Land transport DOT/TDG Remarks:** Non-hazardous goods from the standpoint of the specified regulations. ATTENTION: Packing boxes with magnetized parts inside generate magnetic fields and are able to attract magnetizable materials.
- 14.2. **Transport by Sea IMDG Remarks:** Non-hazardous goods from the standpoint of the specified regulations. ATTENTION: Packing boxes with magnetized parts inside generate magnetic fields and are able to attract magnetizable materials.
- 14.3. **Air Transport ICAO-TI and IATA-DGR: Non magnetized parts:** Ceramic magnets may or may not require a hazardous material label. See the International Air Transport Association's (IATA) Dangerous Goods Regulations (DGR) and FAA Title 49, Part 173.21.

### Section 15: Regulatory Information (non-mandatory)

The following list of regulations may not be complete and should not be solely relied upon for all regulatory compliance responsibilities. This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory requirements.

This product is in compliance and conforms to the European Union's Restriction of Use of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive of 2002/95/EC and 2011/65/EU (RoHS2)

### Section 16: Other Information

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use condition.

The material is friable. Handle with caution!

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*