1 Identification of the substance/mixture and of the supplier

1.1 Product identifier
   Trade Name: Magnaflux Magnetic Particle 2 Yellow
   Synonyms: Magnaflux Magnetic Particle 2 Yellow
   Product number: Magnaflux Magnetic Particle 2 Yellow

1.2 Application of the substance / the mixture: Precious metal alloy for technical purposes.

1.3 Details of the supplier of the Safety Data Sheet
   Manufacturer
   Lock-n-Stitch Inc.
   1015 S. Soderquist Road
   Turlock, CA 95380
   209-632-2345

   Emergency telephone number:
   ChemTel
   800-255-3924
   1-813-248-0585

2 Hazards identification

2.1 Classification of the substance or mixture:
   The substance is not classified as hazardous according to the Globally Harmonized System (GHS).
   Hazard-determining components of labeling: None.

2.2 Label elements:
   None.
   Hazard pictograms: None
   Signal word: None
   Hazard statements: None
   Precautionary statements: None
   Additional information: None.

2.3 Hazard description
   Hazards Not Otherwise Classified (HNOC):
   May form combustible dust concentrations in air.

   Information concerning particular hazards for humans and environment:
   The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

   Classification system:
   The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

3 Composition/information on ingredients

3.1 Chemical characterization: Mixture.
### Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

**Effective date:** 11.15.2015

**Trade Name:** Magnaflux Magnetic Particle 2 Yellow

### 3.2 Description
None

### 3.3 Hazardous components (percentages by weight)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical Name</th>
<th>Classification</th>
<th>Wt. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 7439-89-6</td>
<td>Iron</td>
<td>80-95</td>
<td></td>
</tr>
<tr>
<td>CAS number: 7439-96-5</td>
<td>Manganese</td>
<td>&lt;2.5</td>
<td></td>
</tr>
<tr>
<td>CAS number: 7439-95-4</td>
<td>Magnesium powder (pyrophoric)</td>
<td>&lt;2.5</td>
<td></td>
</tr>
</tbody>
</table>

### 3.4 Additional Information
None.

### 4 First aid measures

#### 4.1 Description of first aid measures

**General information:** None.

**After inhalation:**
- Maintain an unobstructed airway.
- Loosen clothing as necessary and position individual in a comfortable position.

**After skin contact:**
- Rinse affected area with soap and water.
- If symptoms develop or persist, seek medical attention.

**After eye contact:**
- If symptoms develop or persist, seek medical attention.
- Rinse/flush exposed eye(s) gently using water for 15-20 minutes.

**After swallowing:**
- Rinse mouth thoroughly.
- Seek medical attention if irritation, discomfort, or vomiting persists.
- Do not induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed
- Gastric or intestinal disorders.
- Coughing.

#### 4.3 Indication of any immediate medical attention and special treatment needed:
No additional information.

### 5 Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents:**
- Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

**For safety reasons unsuitable extinguishing agents:**
- Water.
- Carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture:
5.3 Advice for firefighters

Protective equipment:
- Wear protective eye wear, gloves and clothing.
- Refer to Section 8.

5.4 Additional information:
- Avoid inhaling gases, fumes, dust, mist, vapor and aerosols.
- Avoid contact with skin, eyes and clothing.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
- Ensure adequate ventilation.
- Ensure air handling systems are operational.

6.2 Environmental precautions:
- Should not be released into the environment.
- Prevent from reaching drains, sewer or waterway.

6.3 Methods and material for containment and cleaning up:
- Wear protective eye wear, gloves and clothing.
- Pick up mechanically.
- Dispose of the material collected according to regulations.

6.4 Reference to other sections: None

7 Handling and storage

7.1 Precautions for safe handling:
- Avoid breathing mist or vapor.
- Do not eat, drink, smoke or use personal products when handling chemical substances.
- Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

7.2 Conditions for safe storage, including any incompatibilities:
- Store in a cool, well-ventilated area.
- Do not store together with oxidizing and acidic materials.

7.3 Specific end use(s):
- No additional information.

8 Exposure controls/personal protection

8.1 Control parameters:
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3
Effective date: 11.15.2015

Trade Name: Magnaflux Magnetic Particle 2 Yellow

7439-96-5, Manganese, OSHA PEL TWA: 5mg/m3.
7439-96-5, Manganese, NIOSH 8 hr Time Weighted Avg (TWA): 0.2 mg/m3.

8.2 Exposure controls

Appropriate engineering controls:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Respiratory protection:
When necessary, use NIOSH-approved breathing equipment.

Protection of skin:
Select glove material impermeable and resistant to the substance.

Eye protection:
Safety goggles or glasses, or appropriate eye protection.

General hygienic measures:
Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.

9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance (physical state, color):</th>
<th>Solids</th>
<th>Explosion limit lower:</th>
<th>Not determined or not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor: Chacteristic odor</td>
<td></td>
<td>Explosion limit upper:</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Odor threshold: Not determined or not available.</td>
<td></td>
<td>Vapor pressure at 20°C:</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>pH-value: Not determined or not available.</td>
<td></td>
<td>Vapor density:</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Melting/Freezing point: 2795°F/1535°C</td>
<td></td>
<td>Relative density:</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Boiling point/Boiling range: 5432°F/3000°C</td>
<td></td>
<td>Solubilities:</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Flash point (closed cup): Not determined or not available.</td>
<td></td>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Evaporation rate: Not determined or not available.</td>
<td></td>
<td>Auto/Self-ignition temperature:</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Flammability (solid, gaseous): Not determined or not available.</td>
<td></td>
<td>Decomposition temperature:</td>
<td>Not determined or not available.</td>
</tr>
<tr>
<td>Density at 20°C: 7.86 g/cm³ at 23.8°C</td>
<td></td>
<td>Viscosity:</td>
<td>a. Kinematic: Not determined or not available. b. Dynamic: Not determined or not available.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

10.1 Reactivity:
None under normal processing.
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 11.15.2015

Trade Name: Magnaflux Magnetic Particle 2 Yellow

10.2 Chemical stability:
Stable under normal conditions of use and storage.

10.3 Possibility hazardous reactions:
Risk of dust explosion.
Contact with acids releases flammable gases.
Reacts with acids, alkalies, and oxidizing agents.

10.4 Conditions to avoid:
Keep ignition sources away - Do not smoke.
Incompatible materials.

10.5 Incompatible materials:
Strong acids, bases, and oxidizing agents.

10.6 Hazardous decomposition products:
Thermal decomposition can lead to release of irritating gases and vapors.

11 Toxicological information

11.1 Information on toxicological effects:
Acute Toxicity:
Oral:
Iron: LD50: Rat - 7,500 mg/kg.

Chronic Toxicity: No additional information.

Skin corrosion/irritation: No additional information.

Serious eye damage/irritation: No additional information.

Respiratory or skin sensitization: No additional information.

Carcinogenicity: No additional information.

IARC (International Agency for Research on Cancer): None of the ingredients are listed.

NTP (National Toxicology Program): None of the ingredients are listed.

Germ cell mutagenicity:
Iron: Ames test S. Typhimurium negative.

Reproductive toxicity: No additional information.

STOT-single and repeated exposure: No additional information.

Additional toxicological information: No additional information.

12 Ecological information

12.1 Toxicity:
Iron: Fish, static test - Morone saxatilis - 13.6 mg/l - 96 h.

12.2 Persistence and degradability: No additional information.

12.3 Bioaccumulative potential: No additional information.

12.4 Mobility in soil: No additional information.
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 11.15.2015

<table>
<thead>
<tr>
<th>Trade Name: Magnaflux Magnetic Particle 2 Yellow</th>
</tr>
</thead>
</table>

**General notes:** No additional information.

12.5 **Results of PBT and vPvB assessment:**
- **PBT:** No additional information.
- **vPvB:** No additional information.

12.6 **Other adverse effects:** No additional information.

13 **Disposal considerations**

13.1 **Waste treatment methods (consult local, regional and national authorities for proper disposal)**

**Relevant Information:**

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. (US 40CFR262.11).

14 **Transport information**

14.1 **UN Number:**
ADR, ADN, DOT, IMDG, IATA
Not regulated

14.2 **UN Proper shipping name:**
ADR, ADN, DOT, IMDG, IATA
Not regulated.

14.3 **Transport hazard classes:**
ADR, ADN, DOT, IMDG, IATA

- **Class:** None
- **Label:** None
- **LTD. QTY:** None

<table>
<thead>
<tr>
<th>US DOT</th>
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<tbody>
<tr>
<td>Limited Quantity Exception: None</td>
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</table>

<table>
<thead>
<tr>
<th>Bulk:</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ (if applicable): None</td>
</tr>
<tr>
<td>Proper shipping Name: Not regulated.</td>
</tr>
<tr>
<td>Hazard Class: None</td>
</tr>
<tr>
<td>Packing Group: Not regulated.</td>
</tr>
<tr>
<td>Marine Pollutant (if applicable): No</td>
</tr>
<tr>
<td>Comments: None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non Bulk:</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ (if applicable): None</td>
</tr>
<tr>
<td>Proper shipping Name: Not regulated.</td>
</tr>
<tr>
<td>Hazard Class: None</td>
</tr>
<tr>
<td>Packing Group: Not regulated.</td>
</tr>
<tr>
<td>Marine Pollutant (if applicable): No</td>
</tr>
<tr>
<td>Comments: None</td>
</tr>
</tbody>
</table>

14.4 **Packing group:**
ADR, ADN, DOT, IMDG, IATA
Not regulated.

14.5 **Environmental hazards :**
None

14.6 **Special precautions for user:**
None

- **Danger code (Kemler):** None
- **EMS number:** None
- **Segregation groups:** None
### Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

**Effective date:** 11.15.2015

### Trade Name

**Magnaflux Magnetic Particle 2 Yellow**

<table>
<thead>
<tr>
<th>14.7</th>
<th>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</th>
<th>Not applicable</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>14.8</th>
<th>Transport/Additional information:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transport category:</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Tunnel restriction code:</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>UN &quot;Model Regulation&quot;:</td>
<td>Not regulated, Not regulated</td>
</tr>
</tbody>
</table>

### Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

**North American**

<table>
<thead>
<tr>
<th>SARA</th>
<th>Section 313 (specific toxic chemical listings):</th>
<th>7439-93-2 Manganese.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Section 302 (extremely hazardous substances):</td>
<td>None of the ingredients are listed.</td>
</tr>
</tbody>
</table>

**CERCLA (Comprehensive Environmental Response, Clean up and Liability Act) Reportable Spill Quantity:** None of the ingredients are listed.

**TSCA (Toxic Substances Control Act):**

- **Inventory:** All ingredients are listed.
- **Rules and Orders:** Not applicable.

**Proposition 65 (California):**

- **Chemicals known to cause cancer:** None of the ingredients are listed.
- **Chemicals known to cause reproductive toxicity for females:** None of the ingredients are listed.
- **Chemicals known to cause reproductive toxicity for males:** None of the ingredients are listed.
- **Chemicals known to cause developmental toxicity:** None of the ingredients are listed.

**Canadian**

- **Canadian Domestic Substances List (DSL):** All ingredients are listed.

**EU**

- **REACH Article 57 (SVHC):** None of the ingredients are listed.
- **Germany MAK:** Not classified.

**Asia Pacific**

- **Australia**
  - **Australian Inventory of Chemical Substances (AICS):** All ingredients are listed.

- **China**
  - **Inventory of Existing Chemical Substances in China (IECSC):** All ingredients are listed.

- **Japan**
  - **Inventory of Existing and New Chemical Substances (ENCS):** All ingredients are listed.
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 11.15.2015

Trade Name: Magnaflux Magnetic Particle 2 Yellow

Korea
Existing Chemicals List (ECL): All ingredients are listed.

New Zealand
New Zealand Inventory of Chemicals (NZOIC): All ingredients are listed.

Philippines
Philippine Inventory of Chemicals and Chemical Substances (PICCS): All ingredients are listed.

Taiwan
Taiwan Chemical Substance Inventory (TSCI): All ingredients are listed.

16 Other information

Abbreviations and Acronyms: None

Summary of Phrases
Hazard statements: None
Precautionary statements: None

Manufacturer Statement:
The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, 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 applicable to this material. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The responsibility to provide a safe workplace remains with the user. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

NFPA: 1-1-1
HMIS: 1-1-1