SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Pig Iron (Basic, Foundry, Nodular)
Chemical Family: Alloy
CAS #: NA
Importer: Primetrade, Inc.
11301 Carmel Commons Blvd, Suite 115
Charlotte, NC 28226
Phone: (704) 541-4082
Fax: (704) 541-5367
e-mail: iron@primetradeusa.com

SECTION 2. HAZARD IDENTIFICATION

This material, in its original form, is not classified as hazardous under any standards, regulations or directives issued by OSHA (in USA), WHMIS (in Canada), ABNT (in Brazil), and EEC (in Europe). No classification as hazardous was found in standards, regulations or directives issued by any other organization or authority in any other countries.

Physical state: Solid.
Emergency overview: No specific hazard established.

Potential acute health effects: NO EXPOSURE WHEN USED IN ITS ORIGINAL FORM. Processing of product, e.g. melting, grinding, welding, cutting, may produce dust and fumes. Routes of entry: Dermal contact; eye contact; inhalation. Overexposure to such dust and fumes may affect:
- Eyes: May cause eye irritation
- Skin: May cause mild irritation
- Inhalation: May cause respiratory tract irritation

Potential chronic health effects: NO EXPOSURE WHEN USED IN ITS ORIGINAL FORM. Processing of product, e.g. melting, grinding, welding, cutting, may produce dust and fumes. Prolonged overexposure to iron dust or fumes may cause a chronic health condition of pneumoconiosis (i.e. siderosis).

Medical conditions aggravated by overexposure: NO EXPOSURE WHEN USED IN ITS ORIGINAL FORM.
Processing of product, e.g. melting, grinding, welding, cutting, may produce dust and fumes. Repeated inhalation of iron dust or fumes may cause various degrees of respiratory tract irritation or a chronic health condition of pneumoconiosis (i.e. siderosis).
SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Typical % by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
<td>&gt;93</td>
</tr>
<tr>
<td>Carbon</td>
<td>7440-44-0</td>
<td>3.5 – 4.5</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>7723-14-0</td>
<td>&lt;0.15</td>
</tr>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>&lt;3.5</td>
</tr>
<tr>
<td>Sulfur</td>
<td>7704-34-9</td>
<td>&lt;0.015</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

**Eye Contact:** Check for and remove any contact lenses. Flush with large amounts of clean and cold water. Get medical attention if irritation occurs.

**Skin Contact:** Wash the contaminated skin with soap or mild detergent and water. Get medical attention if irritation occurs. Remove contaminated clothing and launder before reuse.

**Inhalation:** If acute overexposure to fumes occurs, remove exposed person from the adverse environment to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated and seek medical attention promptly.

**Ingestion:** Not a probable route of entry in an industrial environment. However, in such case do not induce vomiting and seek medical advice.

SECTION 5. FIRE-FIGHTING MEASURES

**Flammability Classification:** Non-flammable, non-combustible.

**Fire-fighting media and instructions:** Molten metal may react violently with water. Use an extinguishing agent suitable for the surrounding fire.

**Unusual fire or explosion hazards:** Avoid contact of cold or wet ingots with molten metal to prevent EXPLOSION hazard.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**Spill or leakage:** Not applicable to product in its original form.

**Disposal:** Product can be recycled for future use or otherwise disposed by any methods permitted by applicable local regulations.

SECTION 7. HANDLING AND STORAGE

**Storage:** Store away from incompatible materials.

**Handling:** The use in processes with potential generation of airborne particulates or fumes shall be evaluated and controlled as necessary. Personnel shall use suitable protective equipment. Remove moisture from ingots surface before dropping into molten metal.
SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Use controls, e.g. process enclosures or local exhaust ventilation, to keep airborne levels below recommended exposure limits and to minimize exposure to metal fumes and dusts and heat during use or handling operations.

**Personal protection:**

- **Eyes:** Safety eyewear complying with an approved standard should be used and selected based on the task being performed and the risks involved. Where there is a risk of exposure to high velocity particles safety glasses or face shield complying with an approved standard should be used to protect against impact. Where there is a risk of exposure to dusts, goggles should be used and use of contact lenses is not recommended.

- **Respiratory:** Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Seek professional advice prior to respirator selection and use.

- **Hands:** Recommended: Leather gloves.

- **Skin/Body:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Recommended: Overall.

Consult local authorities for acceptable exposure limits.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid (ingots).</td>
</tr>
<tr>
<td>Appearance</td>
<td>Metallic.</td>
</tr>
<tr>
<td>Color</td>
<td>Gray.</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>1150 – 1200 ºC (2102 – 2192 ºF)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Approx. 7 (water = 1)</td>
</tr>
<tr>
<td>Dispersibility</td>
<td>Not dispersible in cold or hot water.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in cold or hot water.</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

- **Stability:** Stable under normal conditions of storage, handling and use.
- **Incompatibility:** Reactive with oxidizing agents and reducing materials. Contact with acids may liberate flammable gas.
- **Hazardous Decomposition Products:** NA.
- **Hazardous Polymerization:** Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

- **Carcinogenic effects:** Not classified or listed.
- **Mutagenic effects:** NA.
- **Teratogenic effects:** NA.
## SECTION 12. ECOLOGICAL INFORMATION

No information found for the product as a whole on ecotoxicity or environmental fate. 
Products of degradation: Some metallic oxides.

## SECTION 13. DISPOSAL CONSIDERATIONS

This product is recyclable. The generation of waste should be avoided or minimized wherever possible. Disposal: This product is considered to be a solid waste, not a hazardous waste. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

## SECTION 14. TRANSPORT INFORMATION

No classification or labeling is applicable, as product is not considered hazardous in its original form.

## SECTION 15. REGULATORY INFORMATION

This product, in its original form, is not listed on major international regulations. Consult your local or regional authorities.

## SECTION 16. OTHER INFORMATION

Date of preparation: May 26, 2015

The metal itself does not present a health hazard unless it is melted, welded, ground, or cut. During these procedures, it is possible that excessive amounts of fumes or dust may be generated. It is advised that your particular operation be evaluated by a competent health professional to determine whether a hazard exists.

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