

## Safety data sheet

according to 1907/2006/EC, Article 31 and 453/2010/EC

Printing date 06.09.2015

Version number 3

Revision: 06.09.2015

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1 Product identifier**Trade name: **AMASTEEL****1.2 Relevant identified uses of the substance or mixture and uses advised against***No further relevant information available.*Application of the substance / the mixture *Cast steel***1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:***Ervin Industries, Inc.**3893 Research Park Drive**Ann Arbor, MI 48108-2217**Phone: (734)-769-4600/Fax: (734)-663-0136**sales@ervinindustries.com**http://www.ervinindustries.com/***1.4 Emergency telephone number:** *Phone: (734)-769-4600/Fax: (734)-663-0136*

### SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

*The product is not classified according to the CLP regulation.***2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 *Void*Hazard pictograms *Void*Signal word *Void*Hazard statements *Void***2.3 Other hazards****Results of PBT and vPvB assessment**PBT: *Not applicable.*vPvB: *Not applicable.*

### SECTION 3: Composition/information on ingredients

**3.2 Mixtures**Description: *Mixture: consisting of the following components.***Dangerous components:**

CAS: 7440-44-0 EINECS: 231-153-3	carbon substance with a Community workplace exposure limit	0.80 - 1.20%
CAS: 7439-96-5 EINECS: 231-105-1	manganese	0.35 - 1.20%
CAS: 7440-21-3 EINECS: 231-130-8	silicon substance with a Community workplace exposure limit	0.40 - 1.50%
CAS: 7704-34-9 EINECS: 231-722-6	sulfur ⚠ Skin Irrit. 2, H315	<0.05%
CAS: 7723-14-0 EINECS: 231-768-7	phosphorus ⚠ Flam. Liq. 2, H225; Flam. Sol. 1, H228; Aquatic Chronic 3, H412	<0.05%

**Additional information:** *For the wording of the listed risk phrases refer to section 16.*

### SECTION 4: First aid measures

**4.1 Description of first aid measures**General information: *No special measures required.***After inhalation:***Supply fresh air; consult doctor in case of complaints.**In case of unconsciousness place patient stably in side position for transportation.*

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**After skin contact:***Rinse with warm water.**If skin irritation continues, consult a doctor.***After eye contact:** *Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.***After swallowing:***Rinse out mouth and then drink plenty of water.**If symptoms persist consult doctor.***4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.***4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.***SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:** *CO<sub>2</sub>, sand, extinguishing powder. Do not use water.***For safety reasons unsuitable extinguishing agents:** *Water***5.2 Special hazards arising from the substance or mixture***products are non-flammable.**Fine metal dust that is created as a waste stream and/or contaminants that are removed during the blasting process may pose a small risk of fire or explosion.***5.3 Advice for firefighters****Protective equipment:** *No special measures required.***SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures***Scrap and remnants can create slip-and-fall hazards. It is recommended to keep floors and work areas clean at all times.***6.2 Environmental precautions:** *No special measures required.***6.3 Methods and material for containment and cleaning up:** *Pick up mechanically.***6.4 Reference to other sections***See Section 7 for information on safe handling.**See Section 8 for information on personal protection equipment.**See Section 13 for disposal information.***SECTION 7: Handling and storage****7.1 Precautions for safe handling***Special care must be exercised to prevent product leakage. Exercise extra caution when removing the tension straps that are part of wholesale pallet deliveries.***Information about fire - and explosion protection:** *No special measures required.***7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** *No special requirements.***Information about storage in one common storage facility:** *Not required.***Further information about storage conditions:** *None.***Storage class:** *13***7.3 Specific end use(s)** *No further relevant information available.***SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** *No further data; see item 7.*

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### 8.1 Control parameters

<b>Ingredients with limit values that require monitoring at the workplace:</b>	
<b>7440-44-0 carbon</b>	
WEL	Long-term value: 10* 4** mg/m <sup>3</sup> *inhalable dust **respirable
<b>7440-21-3 silicon</b>	
WEL	Long-term value: 10* 4** mg/m <sup>3</sup> *inhalable dust **respirable dust

**Regulatory information** WEL: EH40/2011

**Additional information:** The lists valid during the making were used as basis.

### 8.2 Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P2

**Protection of hands:**

Leather gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 374 part III are not performed under practical conditions.

Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

**Eye protection:** Safety glasses

**Body protection:** Protective work clothing

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**General Information**

**Appearance:**

**Form:** Solid  
**Odour:** Odourless  
**Odour threshold:** Not determined.

**pH-value:** Not applicable.

**Change in condition**

**Melting point/Melting range:** 1500 °C (2732 °F) (~2700 °F)  
**Boiling point/Boiling range:** 3000 °C (5432 °F) (~5400 °F)  
**Flash point:** Not applicable.  
**Flammability (solid, gaseous):** Not determined.

**Ignition temperature:**

**Decomposition temperature:** Not determined.

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**

**Lower:** Not determined.  
**Upper:** Not determined.

**Vapour pressure:** Not applicable.

**Density at 20 °C (68 °F):** 7.8 g/cm<sup>3</sup> (65.091 lbs/gal)

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<b>Relative density</b>	<i>Not determined.</i>
<b>Vapour density</b>	<i>Not applicable.</i>
<b>Evaporation rate</b>	<i>Not applicable.</i>
<b>Solubility in / Miscibility with water:</b>	<i>Insoluble. Very little danger of rust forming.</i>
<b>Partition coefficient (n-octanol/water):</b> <i>Not determined.</i>	
<b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not applicable.</i>
<b>Kinematic:</b>	<i>Not applicable.</i>
<b>Solvent content:</b>	
<b>Organic solvents:</b>	<i>0.0 %</i>
<b>VOC (EC)</b>	<i>0.00 %</i>
<b>9.2 Other information</b>	<i>No further relevant information available.</i>

**SECTION 10: Stability and reactivity****10.1 Reactivity** *No further relevant information available.***10.2 Chemical stability**  **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.***10.3 Possibility of hazardous reactions** *No dangerous reactions known.***10.4 Conditions to avoid** *No further relevant information available.***10.5 Incompatible materials:** *No further relevant information available.***10.6 Hazardous decomposition products:** *No dangerous decomposition products known.***SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**  **Primary irritant effect:**    **Skin corrosion/irritation** *Based on available data, the classification criteria are not met.*    **Serious eye damage/irritation** *Based on available data, the classification criteria are not met.*  **Respiratory or skin sensitisation** *Based on available data, the classification criteria are not met.***CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  **Germ cell mutagenicity** *Based on available data, the classification criteria are not met.*  **Carcinogenicity** *Based on available data, the classification criteria are not met.*  **Reproductive toxicity** *Based on available data, the classification criteria are not met.*  **STOT-single exposure** *Based on available data, the classification criteria are not met.*  **STOT-repeated exposure** *Based on available data, the classification criteria are not met.*  **Aspiration hazard** *Based on available data, the classification criteria are not met.***SECTION 12: Ecological information****12.1 Toxicity**  **Aquatic toxicity:** *No further relevant information available.***12.2 Persistence and degradability** *No further relevant information available.***12.3 Bioaccumulative potential** *No further relevant information available.***12.4 Mobility in soil** *No further relevant information available.*  **Additional ecological information:**    **General notes:** *Generally not hazardous for water***12.5 Results of PBT and vPvB assessment**  **PBT:** *Not applicable.*  **vPvB:** *Not applicable.***12.6 Other adverse effects** *No further relevant information available.*

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods****European waste catalogue**

12 01 16\* waste blasting material containing dangerous substances

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number**

ADR, ADN, IMDG, IATA

Void

**14.2 UN proper shipping name**

ADR, ADN, IMDG, IATA

Void

**14.3 Transport hazard class(es)**

ADR, ADN, IMDG, IATA

Class

Void

**14.4 Packing group**

ADR, IMDG, IATA

Void

**14.5 Environmental hazards:****Marine pollutant:**

No

**14.6 Special precautions for user**

Not applicable.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

UN "Model Regulation":

Void

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Directive 2012/18/EU**

Named dangerous substances - ANNEX I None of the ingredients is listed.

**National regulations:****Information about limitation of use:** Employment restrictions concerning juveniles must be observed.**Waterhazard class:** Generally not hazardous for water.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Reasons for changes:**

Version 2: 28/05/2015: Section 5.1 extinguishing agents

Version 3: 06/09/2015: Section 1, 15, adaptation to Regulation 453/2015 / EC, 830/2015 / EU, 18/2012 / EU

**Relevant phrases**

H225 Highly flammable liquid and vapour.

H228 Flammable solid.

H315 Causes skin irritation.

H412 Harmful to aquatic life with long lasting effects.

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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*IMDG: International Maritime Code for Dangerous Goods*  
*IATA: International Air Transport Association*  
*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Flam. Liq. 2: Flammable liquids, Hazard Category 2*  
*Flam. Sol. 1: Flammable solids, Hazard Category 1*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*

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