

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2017

Reviewed on 10/09/2017

### 1 Identification

**Product identifier**

**Trade name:** Cut Wire Steel Shot

**Application of the substance / the mixture** *Cast steel*

**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/*

**Information department:**

*Quality Assurance Department  
(mo-thu: 8a.m.-4p.m., fr 8a.m.-1p.m.)*

**Emergency telephone number:** *Tel.: +(734)-769-4600/Fax: (734)-663-0136*

### 2 Hazard(s) identification

**Classification of the substance or mixture**

*The product is not classified according to the Globally Harmonized System (GHS).*

**Label elements**

**GHS label elements** *Void*

**Hazard pictograms** *Void*

**Signal word** *Void*

**Hazard statements** *Void*

**Classification system:**

**NFPA ratings (scale 0 - 4)**



*Health = 3*

*Fire = 0*

*Reactivity = 0*

**HMIS-ratings (scale 0 - 4)**



*Health = 3*

*Fire = 0*

*Reactivity = 0*

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** *Not applicable.*

**vPvB:** *Not applicable.*

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Description:** *Mixture: consisting of the following components.*

**Dangerous components:**

7440-44-0	carbon	<1.5%
7439-96-5	manganese	<1.5%
7440-21-3	silicon	<0.5%
7704-34-9	sulfur	<0.05%
7723-14-0	phosphorus	<0.05%

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### 4 First-aid measures

#### 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.

**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.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed** No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

**For safety reasons unsuitable extinguishing agents:** Water

#### 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.

#### Advice for firefighters

**Protective equipment:** No special measures required.

### 6 Accidental release measures

#### 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.

**Environmental precautions:** No special measures required.

**Methods and material for containment and cleaning up:** Pick up mechanically.

#### 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.

#### Protective Action Criteria for Chemicals

PAC-1:		
7440-44-0	carbon	6 mg/m <sup>3</sup>
7440-21-3	silicon	45 mg/m <sup>3</sup>
7723-14-0	phosphorus	0.27 mg/m <sup>3</sup>
PAC-2:		
7440-44-0	carbon	330 mg/m <sup>3</sup>
7440-21-3	silicon	100 mg/m <sup>3</sup>
7723-14-0	phosphorus	3 mg/m <sup>3</sup>
PAC-3:		
7440-44-0	carbon	2,000 mg/m <sup>3</sup>
7440-21-3	silicon	630 mg/m <sup>3</sup>

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7723-14-0	phosphorus	(Contd. of page 2) 18 mg/m <sup>3</sup>
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### 7 Handling and storage

**Handling:****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 protection against explosions and fires:** *No special measures required.*

**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.*

**Specific end use(s)** *No further relevant information available.*

### 8 Exposure controls/personal protection

**Additional information about design of technical systems:** *No further data; see item 7.*

**Control parameters****Components with limit values that require monitoring at the workplace:**

*The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.*

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

**Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

*The usual precautionary measures for handling chemicals should be followed.*

**Breathing equipment:**

*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 through 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*

### 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

**Form:**

*Solid*

**Odor:**

*Odorless*

**Odor threshold:**

*Not determined.*

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<b>pH-value:</b>	<i>Not applicable.</i>
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	1500 °C (2732 °F) (~2700 °F)
<b>Boiling point/Boiling range:</b>	3000 °C (5432 °F) (~5400 °F)
<b>Flash point:</b>	<i>Not applicable.</i>
<b>Flammability (solid, gaseous):</b>	<i>Not determined.</i>
<b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	<i>Not determined.</i>
<b>Auto igniting:</b>	<i>Product is not selfigniting.</i>
<b>Danger of explosion:</b>	<i>Product does not present an explosion hazard.</i>
<b>Explosion limits:</b>	
<b>Lower:</b>	<i>Not determined.</i>
<b>Upper:</b>	<i>Not determined.</i>
<b>Vapor pressure:</b>	<i>Not applicable.</i>
<b>Density at 20 °C (68 °F):</b>	7.8 g/cm <sup>3</sup> (65.091 lbs/gal)
<b>Relative density</b>	<i>Not determined.</i>
<b>Vapor density</b>	<i>Not applicable.</i>
<b>Evaporation rate</b>	<i>Not applicable.</i>
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	<i>Insoluble.</i> <i>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>	0.0 %
<b>VOC content:</b>	0.0 g/l / 0.00 lb/gl
<b>Other information</b>	<i>No further relevant information available.</i>

### 10 Stability and reactivity

**Reactivity** *No further relevant information available.*

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*

**Possibility of hazardous reactions** *No dangerous reactions known.*

**Conditions to avoid** *No further relevant information available.*

**Incompatible materials:** *No further relevant information available.*

**Hazardous decomposition products:** *No dangerous decomposition products known.*

### 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**Primary irritant effect:**

**on the skin:** *No irritant effect.*

**on the eye:** *No irritating effect.*

**Sensitization:** *No sensitizing effects known.*

**Additional toxicological information:**

*The product is not subject to classification according to internally approved calculation methods for preparations:*

*When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.*

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### Carcinogenic categories

<b>IARC (International Agency for Research on Cancer)</b>
<i>None of the ingredients is listed.</i>
<b>NTP (National Toxicology Program)</b>
<i>None of the ingredients is listed.</i>
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
<i>None of the ingredients is listed.</i>

## 12 Ecological information

### Toxicity

**Aquatic toxicity:** *No further relevant information available.*

**Persistence and degradability** *No further relevant information available.*

### Behavior in environmental systems:

**Bioaccumulative potential** *No further relevant information available.*

**Mobility in soil** *No further relevant information available.*

### Additional ecological information:

**General notes:** *Generally not hazardous for water*

### Results of PBT and vPvB assessment

**PBT:** *Not applicable.*

**vPvB:** *Not applicable.*

**Other adverse effects** *No further relevant information available.*

## 13 Disposal considerations

### Waste treatment methods

#### Recommendation:

*completely emptied packaging in 25kg paper bag: paper recycling  
completely emptied packaging in big bags: commercial waste disposal  
completely emptied packaging in steel barrels: metal recycling*

### Uncleaned packagings:

**Recommendation:** *Disposal must be made according to official regulations.*

## 14 Transport information

<b>UN-Number</b> DOT, ADR, ADN, IMDG, IATA	<i>Void</i>
<b>UN proper shipping name</b> DOT, ADR, ADN, IMDG, IATA	<i>Void</i>
<b>Transport hazard class(es)</b> DOT, ADR, ADN, IMDG, IATA Class	<i>Void</i>
<b>Packing group</b> DOT, ADR, IMDG, IATA	<i>Void</i>
<b>Environmental hazards:</b> <b>Marine pollutant:</b>	<i>No</i>
<b>Special precautions for user</b>	<i>Not applicable.</i>
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	<i>Not applicable.</i>

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UN "Model Regulation": Void

### 15 Regulatory information

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

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**Section 355 (extremely hazardous substances):**

7723-14-0	phosphorus
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**Section 313 (Specific toxic chemical listings):**

7439-96-5	manganese
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7723-14-0	phosphorus
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**TSCA (Toxic Substances Control Act):**

7440-44-0	carbon
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7440-21-3	silicon
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7704-34-9	sulfur
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7723-14-0	phosphorus
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**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**Carcinogeny categories**

**EPA (Environmental Protection Agency)**

7439-96-5	manganese	D
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7723-14-0	phosphorus	D
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**TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**GHS label elements** Void

**Hazard pictograms** Void

**Signal word** Void

**Hazard statements** Void

**National regulations:**

**Information about limitation of use:** Employment restrictions concerning young persons must be observed.

**Water hazard class:** Generally not hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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.

**Contact:** Dr. W. Assmann

**Date of preparation / last revision** 10/09/2017 / -

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### 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)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*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)*

*NFPA: National Fire Protection Association (USA)*

*HMS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

**\* Data compared to the previous version altered. Cut Wire Steel Shot**