

## Safety Data Sheet acc. to OSHA HCS

Printing date 12/26/2022

Reviewed on 11/08/2022

### 1 Identification

**Product identifier****Trade name: AMACAST****Application of the substance / the mixture** *blasting agent***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: 8 a.m.-4 p.m., fr: 8 a.m. - 1 p.m.)***Emergency telephone number:** *Phone: (734)-769-4600/Fax: (734)-663-0136***EUPCS:** *PC-TEC-12*

### 2 Hazard(s) identification

**Classification of the substance or mixture***The product is not classified, according to the Globally Harmonized System (GHS).***Additional information:** *CLP-Verordnung, Anhang VI, 1.1.3.2, Anmerkung erfüllt. Siehe Abschnitt 11.***Label elements****GHS label elements** *Void***Hazard pictograms** *Void***Signal word** *Void***Hazard statements** *Void***Classification system:****NFPA ratings (scale 0 - 4)***Health = 0**Fire = 0**Reactivity = 0***HMIS-ratings (scale 0 - 4)***Health = 0**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:**

7440-47-3	chromium	<20%
7440-02-0	Nickel	<10%
7440-21-3	silicon	<3%

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7439-96-5	manganese	<2%
7440-44-0	carbon	<0.25%

### 4 First-aid measures

#### Description of first aid measures

**General information:** Take affected persons out into the fresh air.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:**

Generally the product does not irritate the skin.

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** Irritation from dust:

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

No further relevant information available.

### 5 Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing agents:**

Use fire fighting measures that suit the environment.

CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**Special hazards arising from the substance or mixture** No further relevant information available.

#### Advice for firefighters

**Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

#### Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Avoid formation of dust.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Product forms Slippery Coverings with Water.

**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

**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.

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### Protective Action Criteria for Chemicals

PAC-1:		
7439-89-6	iron	3.2 mg/m <sup>3</sup>
7440-47-3	chromium	1.5 mg/m <sup>3</sup>
7440-21-3	silicon	45 mg/m <sup>3</sup>
7439-96-5	manganese	3 mg/m <sup>3</sup>
7440-44-0	carbon	6 mg/m <sup>3</sup>
PAC-2:		
7439-89-6	iron	35 mg/m <sup>3</sup>
7440-47-3	chromium	17 mg/m <sup>3</sup>
7440-21-3	silicon	100 mg/m <sup>3</sup>
7439-96-5	manganese	5 mg/m <sup>3</sup>
7440-44-0	carbon	330 mg/m <sup>3</sup>
PAC-3:		
7439-89-6	iron	150 mg/m <sup>3</sup>
7440-47-3	chromium	99 mg/m <sup>3</sup>
7440-21-3	silicon	630 mg/m <sup>3</sup>
7439-96-5	manganese	1,800 mg/m <sup>3</sup>
7440-44-0	carbon	2,000 mg/m <sup>3</sup>

## 7 Handling and storage

### Handling:

#### Precautions for safe handling

Provide suction extractors if dust is formed.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.

**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:** Store away from foodstuffs.

**Further information about storage conditions:** Store in dry conditions.

**Storage class:** 13

**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 following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

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<b>7440-47-3 chromium</b>	
PEL	Long-term value: 1 mg/m <sup>3</sup>
REL	Long-term value: 0.5* mg/m <sup>3</sup> *metal+inorg.compds.as Cr;See Pocket Guide App. C
TLV	Long-term value: 0.003* 0.5** mg/m <sup>3</sup> inh. fraction, *as Cr(III): A4, **metal
<b>7440-21-3 silicon</b>	
PEL	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV	TLV withdrawn
<b>7439-96-5 manganese</b>	
PEL	Ceiling limit value: 5 mg/m <sup>3</sup> as Mn
REL	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup> fume, as Mn
TLV	Long-term value: 0.02* 0.1** mg/m <sup>3</sup> as Mn; A4, *respirable **inhalable fraction

### Regulatory information

PEL: Guide to Occupational Exposure Values (OSHA PELs)  
REL: Guide to Occupational Exposure Values (NIOSH RELs)  
TLV: Guide to Occupational Exposure Values (TLV)

### Ingredients with biological limit values:

<b>7440-47-3 chromium</b>	
BEI	0.7 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (population based)

Regulatory information BEI: Guide to Occupational Exposure Values (BEI)

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:

Breathing protection required In the event Of Dust development.

Filter P2

#### Protection of hands:

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

#### Material of gloves

Leather gloves.

Recommended thickness of the material: ≥ - mm

Penetration time of glove material Value for the permeation: Level ≤ -

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Eye protection:



Tightly sealed goggles

Body protection: Protective clothing according to DIN EN 374

### 9 Physical and chemical properties

#### Information on basic physical and chemical properties

##### General Information

Appearance:

Form:	Solid
Color:	Dark grey
Odor:	Odorless
Odor threshold:	Not determined.

pH-value: Not applicable.

##### Change in condition

Melting point/Melting range:	1,371-1,483 °C (34.571-34.783 °F)
Boiling point/Boiling range:	2,650-3,150 °C (36.850-37.750 °F)
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not determined.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not applicable.
Density at 20 °C (68 °F):	>7.6 g/cm <sup>3</sup> (>63.42 lbs/gal)
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.
Solvent content:	
VOC content:	0.00 %
Solids content:	100.0 %

Other information No further relevant information available.

### 10 Stability and reactivity

Reactivity No further relevant information available.

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### 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:

*Examination nickel release in accordance with DIN EN 1811: 2012-10: done*

*Sample Number 2016-00916*

*<0.1 µg per cm<sup>2</sup> and week*

*therefore no sensitization detected.*

#### 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.*

#### Carcinogenic categories

IARC (International Agency for Research on Cancer)		
7440-47-3	chromium	3
7440-02-0	Nickel	1
NTP (National Toxicology Program)		
7440-02-0	Nickel	R
OSHA-Ca (Occupational Safety & Health Administration)		
<i>None of the ingredients is listed.</i>		

#### Carcinogenicity

*Classification on H351 and H372 according to CSR REACH registration only when exposed by inhalation.*

## 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:

*Water hazard class 2 (Self-assessment): hazardous for water*

*Do not allow product to reach ground water, water course or sewage system.*

*Danger to drinking water if even small quantities leak into the ground.*

#### Results of PBT and vPvB assessment

**PBT:** *Not applicable.*

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vPvB: Not applicable.  
Other adverse effects No further relevant information available.

### 13 Disposal considerations

**Waste treatment methods**

**Recommendation:** Contact manufacturer for recycling information.

**Waste disposal key:**

Disposal must be made according to official regulations.

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.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

UN-Number DOT, ADR, ADN, IMDG, IATA	Void
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Void
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class	Void
Packing group DOT, ADR, IMDG, IATA	Void
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	Void

### 15 Regulatory information

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

<b>Section 355 (extremely hazardous substances):</b>	
None of the ingredient is listed.	
<b>Section 313 (Specific toxic chemical listings):</b>	
7440-47-3	chromium
7440-02-0	Nickel

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7439-96-5	manganese	
<b>TSCA (Toxic Substances Control Act):</b>		
7439-89-6	iron	ACTIVE
7440-47-3	chromium	ACTIVE
7440-21-3	silicon	ACTIVE
7439-96-5	manganese	ACTIVE
7440-44-0	carbon	ACTIVE
<b>Hazardous Air Pollutants</b>		
7439-96-5	manganese	
<b>Proposition 65</b>		
<i>Warning: This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a></i>		
<b>Chemicals known to cause cancer:</b>		
7440-02-0	Nickel	
<b>Chemicals known to cause reproductive toxicity for females:</b>		
<i>None of the ingredients is listed.</i>		
<b>Chemicals known to cause reproductive toxicity for males:</b>		
<i>None of the ingredients is listed.</i>		
<b>Chemicals known to cause developmental toxicity:</b>		
<i>None of the ingredients is listed.</i>		
<b>Carcinogen categories</b>		
<b>EPA (Environmental Protection Agency)</b>		
7440-47-3	chromium	D
7439-96-5	manganese	D
<b>TLV (Threshold Limit Value)</b>		
7440-47-3	chromium	A4
7440-02-0	Nickel	A5
<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
7440-02-0	Nickel	

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:** *Water hazard class 2 (Self-assessment): 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.*

**Motivo da mudança:**

05/26/2015: *Adaptation to EU/453/2010 Annex II*  
 09/09/2015: *Adaptation to EU/830/2015 and EU/18/2012*

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04/20/2016: Section 11 - Skin Sensitization (Nickel)

04/20/2018: Section 13

09/19/2020: Section 1, 3, 8, 13, 15

11/23/2021: Section 1, 15

11/08/2022: Section 15

### Contact:

**Date of preparation / last revision 12/26/2022**

### Abbreviations and acronyms:

*ADR: Accord relatif au transport international 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*

*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*

*BEI: Biological Exposure Limit*

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