



MICROBEADS AG  
Wambisterstrasse 1a, CH-5412 Gebenstorf / Switzerland  
info@microbeads-ag.ch, www.microbeads-ag.ch

**Trade name : Stainless Steel Shot Chromium/Nickel**

**EG - Safety Data Sheet to Regulation (EC) no. 1272/2008 (version 27.04)**

Issue date: January 2020

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**1. Identification of the substance and the company**

**Trade name:** Stainless Steel Shot Chromium/Nickel

**Use of the mixture:** Sandblasting processes  
Resin filler, compound filler  
Counterweight  
Abrasive media (stone processing)  
Filler for brake liners compound

**Company:** MICROBEADS AG  
Wambisterstrasse 1a  
CH-5412 Gebenstorf  
Phone: 0041 56 441 16 11  
Fax: 0041 56 441 55 15  
E-mail: [info@microbeads-ag.ch](mailto:info@microbeads-ag.ch)  
**Webseite:** [www.microbeads-ag.ch](http://www.microbeads-ag.ch)

**Emergency phone no.:** Sale Department Microbeads AG  
Emergency phone no.: 0041 56 441 16 11

**2. Hazards identification**

**Classification of the mixture**

**Classification according to Regulation (EC) n. 1272/2008 (CLP/GHS):**

Hazard classes and categories (Reg. 1272/2008): **Skin Sens. 1; Carc. 2; STOT RE. 2**  
Hazard statements (Reg. 1272/2008): **H317; 351; H373**

**Label elements**

**Labelling according to Regulation (EC) no. 1272/2008 (CLS/GHS)**

*According to art. 12 of Directive 1999/45/EC, to art. 23 and ANNEX I (point 1.3.4.) of Regulation n. 1272/2008, such mixtures do not require a label (metals in massive form/metal alloys).*

**Other hazards**

The substance in the mixture do not meet the criteria for PBT or vPvB substances.

|                   |             |   |
|-------------------|-------------|---|
| SDS_27.04         | 28/04/2011  | Updated classification and labelling according to Regulation 1272/2008/CE (CLP). Modified name if the document. |
| SDS_27.03         | 24/08/2009  | Updated points: 1.1; 2.1; 3.1; 3.2; 13; 15.1; 16.1; 16.2  |
| <b>Ident Rev.</b> | <b>Date</b> | <b>Description</b>  |



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**3. Composition/Information on ingredients**

Iron-based smelted alloy.

Mixture: Nickel 9 % (max w/w); Chrome 20 % (max w/w); Manganese 2 % (max w/w)  
Iron 65 - 75 % (w/w); Silicon 2,5 % (max w/w)

Regulation no. 1272/2008

| EINECS N° | CAS N°    | INDEX N°     | Chemical name | Conc. /%w/w) | Hazard class and category code                            | Hazard statement             |
|-----------|-----------|--------------|---------------|--------------|---|------------------------------|
| 231-111-4 | 7440-02-0 | 028-002-01-4 | Nickel        | ≤ 9          | Carc. 2<br>STOT RE.1<br>Skin Sens. 1<br>Aquatic Chronic 3 | H351<br>H372<br>H317<br>H412 |
| 231-157-5 | 7440-47-3 | -            | Chrome        | < 20         | -   | -                            |
| 231-105-1 | 7439-96-5 | -            | Manganese     | < 2          | -   | -                            |
| 231-096-4 | 7439-89-6 | -            | Iron          | 65 - 75      | -   | -                            |
| 231-130-8 | 7440-21-3 | -            | Silicon       | < 2,5        | -   | -                            |

REACH Registration number (Iron): 01-2119462838-24-0194

|           | REACH Pre-Registration number |
|-----------|-------------------------------|
| Nickel    | 05-2115258123-55-0000         |
| Chrome    | 05-2115258134-52-0000         |
| Manganese | 05-2115258131-58-0000         |
| Silicon   | 05-2115258128-45-0000         |

**Note**

In this section, there is the indication of the considered substances classification. It includes the codes bound to hazard statements assigned to the substances due to their safety, health and environmental risks. The meaning of each hazard statement is reported in section no. 16.



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#### **4. First aid measures**

##### **Description of first aid measures**

- Skin contact :** Wash contaminated skin carefully with soap and water. Obtain medical advice if irritation occurs. Cuts or abrasion should be treated promptly with thorough cleansing of the affected area.
- Eye contact :** Use general measures if eye irritations occur. Do not rub eyes. Flush eyes thoroughly with water, taking care to rinse under eyelids. If irritation persists continue flushing for 15 minutes, rinsing from time to time under eyelids. If discomfort continues, consult a physician.
- Inhalation :** Move the exposed person to fresh air at once. Perform artificial respiration if necessary. Obtain medical attention as soon as possible.
- Ingestion :** In case of significant oral intake (several mg of product), rinse mouth and give 200 - 300 ml of water to drink. Do not induce vomiting. Get medical attention if any discomfort continues.

##### **Most important symptoms and effects, both acute and delayed**

Nose-lung irritation may be symptoms occurring after inhalation of fumes/dusts/mists containing nickel. Contact of the product with skin may produce dermatitis. Inhalation of fine powders in large quantities, may produce pneumoconiosis.

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

Treat symptomatically.

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#### **5. Fire fighting measures**

##### **Extinguish media**

- Suitable extinguish media: Dry powder extinguisher class D or dry sand.
- DO NOT USE: Do not use halogenated extinguishing media.
- Special protective equipment for fire-fighters: Wear oxygen or air respirator and suitable safety devices (suit, shoes, hard hat, gloves and glasses).
- Potential risk of exposition: Do not inhale dust and fume.
- Particular practice: **Special attention must be paid to processes and/or systems that might raise clouds of very fine powder likely to be flammable in the presence of primers. Avoid ignition sources.**
- WARNING** To avoid electrostatic discharges, assure the electric bonding of metallic tins and plants.

##### **Special hazards arising from the substance**

Material is non-flammable.

##### **Advice for fire-fighters**

Wear a self-contained breathing apparatus and suitable personal safety devices (protective clothing, shoes, helmet, gloves, glasses)

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**6. Personal precautions, protective equipment and emergency procedures**

|  |  |
|--|--|
| <b>For non-emergency personnel:</b>                          | Avoid formation of dust.<br>Ensure adequate ventilation-<br>Avoid inhalation of dust and fumes.<br>Wear suitable protective equipment.                                   |
| <b>For emergency personnel:</b>                              | Avoid formation of dust.<br>Ensure adequate ventilation-<br>Avoid inhalation of dust and fumes.<br>Wear suitable protective equipment.<br>Keep unprotected persons away. |
| <b>Environmental precautions:</b>                            | Keep product away from sewers, surface and underground waters and from the ground.   |
| <b>Methods and material for containment and cleaning up:</b> | Do not use compressed air. Place in a container for recycling with a small shovel.   |

**7. Handling and storage**

**Precautions for safe handling**

Do not reuse empty vessels before they have been cleaned or reconditioned.  
Clear up industrial lines and vessels before working with ignition sources.  
Before making operations of pouring off, assure yourself that inside the tank there aren't residuals of incompatible substances.  
In the matter of protective devices, consult section no. 8 of this SDS.

**Conditions for safe storage, including any incompatibilities**

Covered, dry and naturally-ventilated area.  
Avoid placing material on the floor.  
Keep away from food, feed and beverages.  
Keep away vessels from strong oxidizing agents.  
Do not stack more than 3 pallets high (for products packed in drums).  
Do not stack more than 1 pallet high (for product packed in big-bags).  
The storage of the product in the stockpiling area must avoid soil percolation of accidental spillages.  
It is advisable to use material within 6 months from its forwarding date.

**Specific end uses:** None

**8. Exposure controls / personal protection**

**Exposure limit values:** TLV – TWA (ACGIH, 2009) [mg/m<sup>3</sup>]:  
Cr=0,5 Ni=1,5 Fe=10 Mn=0,2 Si=10

**Ventilation:** Work area must be sufficiently ventilated to keep concentration below the exposure limit.

**Workplace exposure controls**

**Appropriate engineering controls:**

Use local ventilation to keep concentration below established threshold values.



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**8. Exposure controls / personal protection****Personal protection controls****Respiratory protection:**

Filter mask FFP3 (S)

Local exhaust fumes ventilation (high efficiency: 90 - 95%)

Cyclones/filters (to minimize atmospheric emission of dust)

**Hand protection:**

leather gloves according to EN 388 standard

**Eye protection:**

Use safety glasses (EN 166), do not use contact lenses

**Skin protection:**

Tyvec suit.

**Environmental exposure controls:**

Avoid release to the environment. Take precautions against spillage into public sewage or into water channels. Dispose of material and its vessels in hazardous waste collecting area.

No smoking, eating or drinking in the work area.

**9. Physical and chemical properties****Physical state**

(20°C and 1013 hPa):

Solid. Irregular granules with different granulometry.

**Colour:**

metallic

**Melting point:**

1420 - 1550 °C

**Initial boiling point and boiling range:**

No applicable to a solid that melts &gt;300 °C (column 2 of Annex VII of the Reach Regulation)

**Flammability:**

Non flammable

**Relative density:**Approx. 4,5 g/cm<sup>3</sup>**Specific weight:**Approx. 7,8 g/cm<sup>3</sup> (at 20°C)**Water solubility (mg/l):**

no

**Auto-ignition temperature:**

No auto-ignition

**Explosive properties:**

Non explosive. The substance does not contain chemical groups associated with explosive properties.

**10. Stability and reactivity****Reactivity**

N.A. See section 9.

**Chemical stability**

Under normal conditions of use, the product is stable.

**Possibility of hazardous reactions**

May generate hydrogen in contact with materials of the point 10.5

**Conditions to void**

Avoid dust information.

**Incompatible material**

Halogens, halides, strong concentrated acids, alkaline oxides.

**11. Toxicological information****Routes of exposure:**

inhalation, ingestion and skin-contact.

**Acute oral, dermal and inhalation toxicity:****Oral:**

Not classified.

**Dermal:**

Not classified.

**Inhalation:**

Not classified.



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**11. Toxicological information**

**Risk of exposure:**

**STOT single exposure:** Not classified.  
**Skin corrosion/irritation:** Not classified.  
**Respiratory or skin sensitization:** Skin sensitizer category 1.

**Repeated dose toxicity and STOT-RE:** Classified in category 2.

Guidance values to assist in category 2 classification. Inhalation (rat) dust/mist/fume:  
0,02 < C < 0,2 (mg/litre/6h/day)

**Mutagenicity:** Not classified.  
**Carcinogenic:** Category 2 (CLP). Suspected of causing cancer.  
**Reproductive toxicity:** Not classified.

**12. Ecological information**

**Acute aquatic toxicity:** Not classified.  
**Chronic water toxicity:** Not classified.  
**Chronic freshwater sediment toxicity:** Not classified.  
**Soil toxicity:** Not classified.  
**Persistence and degradability:** Not classified.  
**Bio accumulative potential:** Not classified.  
**Mobility in soil:** Data lacking  
**Results of PBT and vPvB assessment:** The mixture does not contain PBT or vPvB substances.  
**Other adverse effects:** The product is not expected to contribute to ozone depletion, ozone formation, global warming or acidification.

**13. Disposal considerations**

Disposal procedures according to Decision 2000/532/EC as amended by the decisions 2001/118/EC, 2001/119/EC, 2001/573/EC and 2008/98/EC.

Product disposal: dispose as hazardous waste, according to in force law. In virtue of the origin of the waste and of its present state, several European Waste Codes (EWC) can be applied.

Packaging disposal: dispose according to in force law. In virtue of the origin of the waste and of its present state, several European Waste Codes (EWC) can be applied.

**14. Transport information**

| Road / Rail / Inland waterways Transport (RID/ADR/ADN) | Maritime transport (IMDG code) | Air transport (IATA /ICAO T.I.) |
|--|--------------------------------|---------------------------------|
| Product not classified as dangerous                    |                                |                                 |



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**15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the mixture.**

The mixture is NOT subject to:

- Regulation (EC) n. Regulation (EC) no. 2037/2000 of the European Parliament and of the Council of 29. June 2000 on substances that deplete the ozone layer;
- Regulation (EC) no. 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants;
- Regulation (EC) n. 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals.

**Chemical safety assessment:** Yes, it has been carried out for Iron.

**16. Other information**

Type of revision: every section. This SDS cancel and substitute every past SDS editions.

Consistent with Regulation (EC) no. 1907/2006.

*The information reported in this Safety Data Sheet are based on the best scientific and toxicological knowledge up to the date indicated above. These information are based on the bibliography below. Reported data refers only to the pure substance.*

*The downstream user must follow in force laws, and make sure that the SDS information are up to date, appropriate and complete in relation to the product utilization date and to the on-site specific use.*

**Description of the most important Hazard Statement used in section 2 and 3 of the present SDS**

**H317:** May cause an allergic skin reaction.

**H351:** Suspected of causing cancer

**H372:** Causes damage to organs through prolonged or repeated exposure.

**H373:** May cause damage to organs through prolonged or repeated exposure.

**H412:** Harmful to aquatic life with long lasting effects.

**Safety Data Sheet based on:**

- Directive 1999/45/EC and following updates and amends.
- D.Lgs. 14/3/2003 n. 65 (Italian law)
- Directive 2001/58/EC and following updates and amends.
- D.M. 7/9/2002 (Italian law)
- Decision 2000/532/EC and following updates and amends.
- Directive 2004/74/EC
- Regulation EC n.1907/2006 (REACH)
- Regulation EC n. 2172/2008 (CLP)
- Regulation EC n. 790/2009
- Regulation EC n. 453/2010

**Laws and References**

- Directive 67/548/EEC and following updates and amends. (Directive on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances)
- D.Lgs. 52/97 and following updates and amends. (Italian law)





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**16. Other information**

- Directive 1999/45/EC and following updates and amends. (concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparation)
- D.Lgs. 14/3/2003 n. 65 (Italian law)
- Regulation (EC) n. 1272/2008 (CLP)
- D.Lgs. 152/2006 (Italian law)
- ADR (European Agreement concerning the international Carriage of Dangerous Goods by Road).
- IMDG Code (International Maritime Dangerous Goods Code)
- IATA (International Air Transport Association)
- SAX'S (Dangerous Properties of Industrial Materials)
- ACGIH (2009) American Conference of Governmental Industrial Hygienists

**Abbreviations and definitions**

DNEL: Derived No-effect Level

EC10: Effective concentration to 10 % of the test organisms

HC-5: The concentration without effect for 95 % of the species = statistically derived environmental threshold value.

LC10: Lethal concentration to 10 % of the test organisms

LC50: Lethal concentration to 50 % of the test organisms

LD50: Lethal dose to 50 % of the test organisms

NOEC: No Observed effect concentration = highest concentration tested without effects

PBT: Persistent Bio accumulative and Toxic

PNEC: Predicted No-effects concentration

REACH: EC regulation on Registration, Evaluation and Authorisation of Chemicals

STOT: Specific Target Organ Toxicity

Skin Irritating Substance: a substance that will lead to reversible damage to the skin following the application of a test substance for up to 4 hours.

Respiratory Sensitizer Substance: a substance that, if inhaled, will lead to hypersensitivity which is normally seen as asthma, but other hypersensitivity reactions such as rhinitis/conjunctivitis and alveolitis are also considered.

Skin Sensitizer Substance: a substance that will lead to an allergic response following skin contact.

TLV-TWA: Threshold Limit Value (TLV) - Time Weighted Average (TWA)

vPvB: Very Persistent, very Bio accumulative.

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