

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 02/24/2022

Version - No. 8

Reviewed on 02/24/2022

**1 Identification**

- **1.1 Product identifier**
- **Trade name:** **Wieland-S23**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the article:** Semi-finished product
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Wieland-Werke AG  
Graf-Arco-Str. 36  
89079 Ulm
- **Information department:**  
Associations & Management Systems  
stefan.priggemeyer@wieland.com
- **1.4 Telephone number:** +49 731 944 2794 (Monday - Friday from 9 a.m. to 4 p.m.)

**2 Hazard(s) identification**

- **2.1 Classification of the substance or mixture:**
- **Classification according to Regulation (EC) No 1272/2008 (CLP-Regulation):**



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Carc. 2 H351 Suspected of causing cancer. Route of exposure: Inhalation.  
Repr. 1B H360 May damage fertility or the unborn child.

- **2.2 Label elements:**
- **Labelling according to Regulation (EC) No 1272/2008:**  
The product is classified and labeled according to the CLP regulation.

- **Hazard pictograms:** GHS08
- **Signal word:** Danger
- **Hazard statements:**  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H351 Suspected of causing cancer. Route of exposure: Inhalation.  
H360 May damage fertility or the unborn child.

- **Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P284 [In case of inadequate ventilation] wear respiratory protection.  
P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable to metals.

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· **vPvB:** Not applicable to metals.

**3 Composition/information on ingredients**

· **3.2 Chemical characterization: Mixtures**

- **Description:** Metal in massive form.
- **Material Code (CEN/TS 13388):** CuZn23Al3Co
- **Material number (CEN/TS 13388):** CW703R
- **UNS-number:** C68800

· **Information:**

The classifications listed below reflect the classification of the relevant alloying constituents and are only for information.

Mentioned percentages are references values.

· **Alloy components:**

CAS: 7440-50-8	copper	72.0-75.0%
EINECS: 231-159-6		
RTECS: GL 5325000		
CAS: 7440-66-6	zinc	Balance%
EINECS: 231-175-3		
RTECS: ZG 8600000		
CAS: 7429-90-5	Aluminium	3.0-3.8%
EINECS: 231-072-3	⚠ Pyr. Sol. 1, H250; Water-react. 2, H261	
RTECS: BD 0330000		
CAS: 7440-48-4	cobalt	0.25-0.55%
EINECS: 231-158-0	⚠ Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1B, H350; Repr. 1B, H360; ⚠ Skin Sens. 1, H317; Aquatic Chronic 4, H413	
RTECS: GF 8750000		
CAS: 7440-02-0	nickel	max. 0.3%
EINECS: 231-111-4	⚠ Carc. 2, H351; STOT RE 1, H372; ⚠ Skin Sens. 1, H317	
RTECS: OF 7525000		
CAS: 7439-92-1	lead	max. 0.05%
EINECS: 231-100-4	⚠ Carc. 2, H351; Repr. 1A, H360	
RTECS: OF 7525000		

**4 First-aid measures**

· **4.1 Description of first aid measures**

· **General information:**

First Aid information refer to any dust which is generated.

The mixture in solid form does not pose any significant health hazard. However, melting or activities which produce metal dust, smoke or fumes can cause that metal dust enter the body in harmful amounts.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

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- **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.
- **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.

**5 Fire-fighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Non-flammable. Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

\* **6 Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures:** Not required.
- **6.2 Environmental precautions:** Not required
- **6.3 Methods and material for containment and cleaning up:**  
Collect the material and if necessary dispose it as waste according to section 13.
- **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.

\* **7 Handling and storage**

- **7.1 Precautions for safe handling:** 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.
- **Further information about storage conditions:** Store in dry conditions.
- **7.3 Specific end use(s):** No further relevant information available.

\* **8 Exposure controls/personal protection**

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

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

**7440-50-8 copper**

PEL Long-term value: 1\* 0.1\*\* mg/m<sup>3</sup>  
as Cu \*dusts and mists \*\*fume

REL Long-term value: 1\* 0.1\*\* mg/m<sup>3</sup>  
as Cu \*dusts and mists \*\*fume

TLV Long-term value: 1\* 0.2\*\* mg/m<sup>3</sup>  
\*dusts and mists; \*\*fume; as Cu

**7429-90-5 Aluminium**

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>  
as Al\*Total dust\*\*Respirable/pyro powd./welding f.

TLV Long-term value: 1\* mg/m<sup>3</sup>  
as Al; \*as respirable fraction, A4

**7440-48-4 cobalt**

PEL Long-term value: 0.1\* mg/m<sup>3</sup>  
as Co; \*for metal dust and fume

REL Long-term value: 0.05 mg/m<sup>3</sup>  
as Co; metal dust & fume

TLV Long-term value: 0.02\* mg/m<sup>3</sup>  
\*inh. fraction; DSEN, RSEN, BEI, A3

**7440-02-0 nickel**

PEL Long-term value: 1 mg/m<sup>3</sup>

REL Long-term value: 0.015 mg/m<sup>3</sup>  
as Ni; See Pocket Guide App. A

TLV Long-term value: 1.5\* mg/m<sup>3</sup>  
elemental, \*inhalable fraction, A5, BEI

**7439-92-1 lead**

PEL Long-term value: 0.05\* mg/m<sup>3</sup>  
\*see 29 CFR 1910.1025

REL Long-term value: 0.05\* mg/m<sup>3</sup>  
\*8-hr TWA ;See PocketGuide App.C

TLV Long-term value: 0.05\* mg/m<sup>3</sup>  
\*and inorganic compds., as Pb; BEI, A3

**· Ingredients with biological limit values:**

**7440-48-4 cobalt**

BEI 15 µg/L

Medium: urine

Time: end of shift at end of workweek

Parameter: Cobalt (nonspecific)

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**7440-02-0 nickel**

BEI 5 µg/L  
Medium: urine  
Time: post-shift at end of workweek  
Parameter: Nickel (background)

30 µg/L  
Medium: urine  
Time: post-shift at end of workweek  
Parameter: Nickel (background)

**7439-92-1 lead**

BEI 200 µg/L  
Medium: blood  
Time: not critical  
Parameter: Lead

- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Do not inhale dust / smoke / mist.
- **Breathing equipment:** Use a suitable industrial gas mask when work-place-limits are exceeded.
- **Protection of hands:**  
Protective gloves are recommended, depending upon how the semis are further processed (material of gloves: neoprene or leather).
- **Eye protection:**  
Protective goggles are recommended, depending upon how the semis are further processed.
- **Body protection:**  
Wear suitable protective clothing, depending upon how the semis are further processed.

**9 Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Solid
· <b>Color:</b>	Metallic yellow
· <b>Odor:</b>	Odorless
· <b>Odor threshold:</b>	Not determined.

· **Change in condition**

· <b>Melting point/Melting range:</b>	950-965 °C (1742-1769 °F)
· <b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.

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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Density at 20 °C (68 °F):</b>	8.11 g/cm <sup>3</sup> (67.67795 lbs/gal)
· <b>Solubility in / Miscibility with water at 20 °C (68 °F):</b>	Not soluble.
· <b>Solvent separation test</b>	
<b>VOC content:</b>	0.00 %
· <b>9.2 Other information</b>	No further relevant information available.

**10 Stability and reactivity**

- **10.1 Reactivity:** Not applicable.
- **10.2 Chemical stability:** Not applicable.
- **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.

**11 Toxicological information**

- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Additional toxicological information:**  
When used and handled according to specifications, the article does not have any harmful effects to our experience and the information provided to us.
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**
- 7440-48-4 cobalt: 2B
- 7440-02-0 nickel: 2B
- 7439-92-1 lead: 2B
- **NTP (National Toxicology Program)**
- 7440-48-4 cobalt: R
- 7440-02-0 nickel: R

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7439-92-1 lead: R

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**12 Ecological information**

- **12.1 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable to metals.
- **vPvB:** Not applicable to metals.
- **12.6 Other adverse effects:** No further relevant information available.

**13 Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage.  
Contact manufacturer for recycling information.

**14 Transport information**

· <b>14.1 UN-Number</b> · <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>14.2 UN proper shipping name</b> · <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>14.3 Transport hazard class(es)</b> · <b>DOT, ADR, ADN, IMDG, IATA</b> · <b>Class</b>	Void
· <b>14.4 Packing group</b> · <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user:</b>	Not applicable.

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· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

**15 Regulatory information**

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

· **Sara**

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

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

All ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants:**

7440-48-4 cobalt

7439-92-1 lead

· **Proposition 65**

· **Chemicals known to cause cancer:**

7440-48-4 cobalt

7440-02-0 nickel

7439-92-1 lead

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

7439-92-1 lead

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

7439-92-1 lead

· **Chemicals known to cause developmental toxicity:**

7439-92-1 lead

· **Carcinogen categories**

· **EPA (Environmental Protection Agency):**

7440-50-8 copper: D

7440-66-6 zinc: D, I, II

7439-92-1 lead: B2

· **TLV (Threshold Limit Value established by ACGIH):**

7429-90-5 Aluminium: A4

7440-48-4 cobalt: A3

7440-02-0 nickel: A5

7439-92-1 lead: A3

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- **NIOSH-Ca (National Institute for Occupational Safety and Health):**  
7440-02-0 nickel
- **Chemical safety assessment:** Void.

**16 Other information**

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

- **Department issuing SDS:** Associations & Management Systems
- **Contact:**  
Dr. Stefan Priggemeyer  
Email: stefan.priggemeyer@wieland.com
- **\* Data compared to the previous version altered.**