

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 substance / the preparation: Semi-finished product
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- **1.3 Details of the supplier of the safety data sheet**
 - Manufacturer/Supplier:
Wieland-Werke AG
Graf-Arco-Straße 36
89079 Ulm (Germany)
Tel.: +49 (0)731/944-0
Fax: +49 (0)731/944-2799
 - Information department:
Department testing laboratories
michael.ebner@wieland.de
 - **1.4 Emergency telephone number:**
Factory security offices
Phone: +49 (0) 731-944-3706

2 Hazard(s) identification

- **2.1 Classification of the substance or mixture**
 - Classification according to Regulation (EC) No 1272/2008 (CLP-Regulation):
For products there is no obligation to classify acc. to CLP -Regulation.
The product is not classified according to the CLP regulation.
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- **2.2 Label elements**
 - Labelling according to Regulation (EC) No 1272/2008: Void
 - Hazard pictograms: Void
 - Signal word: Void
 - Hazard-determining components of labeling: Void
 - Hazard statements: Void
 - **2.3 Other hazards**
Semi-finished products from copper or copper-alloys, as offered for sale as manufactured present no health hazard to man or for the aquatic environment.
 - Results of PBT and vPvB assessment
 - PBT: Not applicable to metals
 - vPvB: Not applicable to metals.

3 Composition/information on ingredients

- **3.2 Chemical characterization: Mixtures**
- Description: Metal in compact form.
- UNS-number: C68800
- Information:
The classifications mentioned below reflect the respective pure substance and are for information only.
Copper alloys are special preparations according to Regulation (EC) 1907/2006 (REACH Regulation).
The classification of a pure substance is not applicable to its use as element of a copper alloy.

(Contd. on page 2)

Trade name: **Wieland S23**

(Contd. of page 1)

· Components:		
CAS: 7440-50-8 EINECS: 231-159-6 RTECS: GL 5325000	copper	72.0-75.0%
CAS: 7429-90-5 EINECS: 231-072-3 RTECS: BD 0330000	aluminium	3.0-3.8%
CAS: 7440-66-6 EINECS: 231-175-3 RTECS: ZG 8600000	zinc	balance%
CAS: 7440-48-4 EINECS: 231-158-0 RTECS: GF 8750000	cobalt ⚠ Resp. Sens. 1, H334; Carc. 2, H351; ⚠ Skin Sens. 1, H317; Aquatic Chronic 4, H413	0.25-0.55%

4 First-aid measures

· 4.1 Description of first aid measures

- General information:
No special measures required.
First Aid information refer to any dust which is generated.
- 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.
- 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:

Dispose of the collected material according to regulations.

· 6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 3)

Trade name: **Wieland S23**

See Section 13 for disposal information.

(Contd. of page 2)

7 Handling and storage

- **7.1 Precautions for safe handling:** No special measures required.
- Information about protection against explosions and fires: 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: None.
- **7.3 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.

8.1 Control parameters

- Components with limit values that require monitoring at the workplace:

7440-50-8 copper

PEL	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists **fume
REL	Long-term value: 1* 0.1** mg/m ³ as Cu *dusts and mists **fume
TLV	Long-term value: 1* 0.2** mg/m ³ *dusts and mists; **fume; as Cu

7429-90-5 aluminium

PEL	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV	Long-term value: 1* mg/m ³ as Al; *as respirable fraction

- Additional Occupational Exposure Limit Values for possible hazards during processing:

1314-13-2 zinc oxide

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction and fume
REL	Short-term value: 10** mg/m ³ Long-term value: 5 mg/m ³ Ceiling limit value: 15* mg/m ³ *dust only **fume
TLV	Short-term value: 10* mg/m ³ Long-term value: 2* mg/m ³ *as respirable fraction

- 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:
 - Wash hands before breaks and at the end of work.
 - 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.

(Contd. on page 4)

Trade name: **Wieland S23**

(Contd. of page 3)

- 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:

Form:	Solid
Color:	metallic-yellow
- Odor: Odorless
- Odor threshold: Not determined.
- Change in condition

Melting point/Melting range:	950-965 °C (1742-1769 ° F) (Lit.)
Boiling point/Boiling range:	Undetermined.
- Flash point: Not applicable.
- Danger of explosion: Product does not present an explosion hazard.
- Density at 20 °C (68 °F): 8.11 g/cm³ (67.678 lbs/g al) (Lit.)
- Solubility in / Miscibility with

Water:	Not soluble.
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- **9.2 Other information** 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

· 11.1 Information on toxicological effects

- Acute toxicity: Based on available data, the classification criteria are not met.

- LD/LC50 values that are relevant for classification:

7440-48-4 cobalt

Oral	LD50	6170 mg/kg (rat)
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- 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: Based on available data, the classification criteria are not met.
- 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.

(Contd. on page 5)

Trade name: **Wieland S23**

(Contd. of page 4)

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

7440-48-4 | cobalt

2B

- NTP (National Toxicology Program)

7440-48-4 | cobalt

R

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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.

- Ecotoxicological effects:

- Remark: Toxic for fish

- Additional ecological information

- General notes:

For semi-finished products in copper or copper-alloys no information regarding ecology is suitable, as it is not soluble in water.

Toxic for aquatic organisms

- **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: Contact manufacturer for recycling information.

14 Transport information

- **14.1 UN-Number**

- DOT, ADR, ADN, IMDG, IATA

Void

- **14.2 UN proper shipping name**

- DOT, ADR, ADN, IMDG, IATA

Void

- **14.3 Transport hazard class(es)**

- DOT, ADR, ADN, IMDG, IATA

- Class

Void

- **14.4 Packing group**

- DOT, ADR, IMDG, IATA

Void

- **14.5 Environmental hazards:**

- Marine pollutant:

No

- **14.6 Special precautions for user:**

Not applicable.

(Contd. on page 6)

Trade name: **Wieland S23**

(Contd. of page 5)

- **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 ingredients are listed.

- Proposition 65

- Chemicals known to cause cancer:

7440-48-4 | cobalt

- 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.

- Cancerogenity categories

- EPA (Environmental Protection Agency)

7440-50-8 | copper

D

7440-66-6 | zinc

D, I, II

- TLV (Threshold Limit Value established by ACGIH)

7429-90-5 | aluminium

A4

7440-48-4 | cobalt

A3

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

None of the ingredients is listed.

- 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: Department testing laboratories

- Contact:

Dr. Michael Ebner

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- Date of preparation / last revision 08/24/2017 / 6

- * Data compared to the previous version altered.