SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
  - Trade name: Gouging carbon electrode Cu
  - Identified use: intended for professional use only!

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  - Application of the substance / the mixture: Gouging

- **1.3 Details of the supplier of the safety data sheet**
  - Manufacturer/Supplier: Alexander BINZEL Schweißtechnik GmbH & Co.KG
  - Postfach 10 01 53 / D-35331 Giessen
  - Tel.: +49 (0) 6408 / 59-0
  - Fax: +49 (0) 6408 / 59-191
  - Mail: technischedokumentation@binzel-abicor.com

- **1.4 Emergency telephone number:**
  - Technical Documentation
  - Telefoninformationszentrum der Länder Rheinland-Pfalz und Hessen
  - Langenbeckstraße 1; Gebäude 601; 55131 Mainz
  - Tel. Nr.: +49 (0) 6131 / 19 24 0
  - Universitätsmedizin der Johannes Gutenberg-Universität Mainz

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
  - Classification according to Regulation (EC) No 1272/2008: The product is not classified, according to the CLP regulation.

- **2.2 Label elements**
  - Labelling according to Regulation (EC) No 1272/2008: Void
  - Hazard pictograms: Void
  - Signal word: Void
  - Hazard statements: Void

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

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
  - Description: Mixture consisting of the following components.

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Description</th>
<th>Community workplace exposure limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8</td>
<td>231-159-6</td>
<td>copper substance with a Community workplace exposure limit</td>
<td>10-50%</td>
</tr>
<tr>
<td>1333-86-4</td>
<td>215-609-9</td>
<td>Carbon black substance with a Community workplace exposure limit</td>
<td>0.5-10%</td>
</tr>
</tbody>
</table>

- **3.3 Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
  - General information:
    - Immediately remove any clothing soiled by the product.
    - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
    - Do not leave affected persons unattended.
    - Personal protection for the First Aider.
    - Take affected persons out of danger area and lay down.

  - After inhalation:
    - In case of unconsciousness place patient stably in side position for transportation.
    - Supply fresh air; consult doctor in case of complaints.

  - After skin contact:
    - Immediately wash with water and soap and rinse thoroughly.
    - Seek medical treatment in case of complaints.

  - After eye contact:
    - Rinse opened eye for several minutes under running water.
    - If symptoms persist, consult a doctor.

  - After swallowing:
    - If symptoms persist consult doctor.

- **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.
**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media:**
  - Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol-resistant foam.
  - Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture:**
  - Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters:**
  - For safety reasons unsuitable extinguishing agents: Water with full jet.
- **5.4 Additional information:**
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures:**
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation.
  - Avoid contact with skin and eyes.
- **6.2 Environmental precautions:**
  - Prevent from spreading (e.g. by damming-in or oil barriers).
  - Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Do not flush with water or aqueous cleansing agents.
- **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.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling:**
  - Store in cool, dry place in tightly closed receptacles.
  - Ensure good ventilation/exhaustion at the workplace.
- **7.2 Conditions for safe storage, including any incompatibilities:**
  - **Storage:**
    - Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
    - Information about storage in one common storage facility: Store away from foodstuffs.
    - Further information about storage conditions: Store in dry conditions. Keep container tightly sealed.
    - Recommended storage temperature: 5-30 °C.
  - Storage class: 10
  - **7.3 Specific end use(s):**
    - No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities:**
  - No further data; see item 7.
- **8.1 Control parameters:**
  - **Ingredients with limit values that require monitoring at the workplace:**
    - **7440-50-8 copper**
      - Short-term value: 2* mg/m³
      - Long-term value: 0.2* 1** mg/m³
      - *fume **dusts and mists (as Cu)
    - **1333-86-4 Carbon black**
      - Short-term value: 7 mg/m³
      - Long-term value: 3.5 mg/m³
  - **Regulatory information:**
    - WEL: EH40/2018
    - The lists valid during the making were used as basis.
  - **Technical protection measures:**
    - A ventilation system must be used when welding in indoor areas.
  - **8.2 Exposure controls:**
    - Personal protective equipment:
      - General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals.
      - Keep away from foodstuffs, beverages and feed.
      - Immediately remove all soiled and contaminated clothing.
      - Wash hands before breaks and at the end of work.
      - Avoid contact with the eyes and skin.

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- Respiratory protection:
  - Use respiratory protection.

- Protection of hands:
  - Check protective gloves prior to each use for their proper condition.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - After use of gloves apply skin-cleaning agents and skin cosmetics.

- Material of gloves:
  - Recommended materials:
    - Hands: protective gloves (fire resistant).
    - 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.
    - Material of gloves:
      - Recommended materials:
        - Hands: protective gloves (fire resistant).
        - 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.
        - Penetration time of glove material:
          - The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- Eye protection:
  - Eyes: face protection with a radiation shield.

- Body protection:
  - Ears: earplugs or ear defenders.
  - Body: fire-resistant protective suit, leather apron, welding helmet, leather boot gaiters and protective gloves.

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Solid
      - Colour: Copper coloured
    - Odour: Odourless
    - Odour threshold: Not determined.
  - pH-value: Not determined.
  - Change in condition
    - Melting point/freezing point:
      - C: 3527 °C
      - Cu: 1084°C
    - Initial boiling point and boiling range:
      - C: 4027°C
      - Cu: 2927°C
  - Flash point: Not applicable.
  - Flammability (solid, gas): Not applicable.
  - Decomposition temperature: Not determined.
  - Auto-ignition temperature: Product is not selfigniting.
  - Explosive properties: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: Not determined.
    - Upper: Not determined.
  - Density:
    - C: 1.7 g/cm³
    - Cu: 8.9 g/cm³
    - Not determined.
  - Relative density
    - Not determined.
  - Vapour density
    - Not determined.
  - Evaporation rate
    - Not determined.
  - Solubility in / Miscibility with water:
    - Not miscible or difficult to mix.
  - Partition coefficient: n-octanol/water:
    - Not determined.
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- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity A gas that is harmful to health can be created in the event of contact with an acidic chemical substance.
- 10.2 Chemical stability
  - 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.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
  - Acute toxicity Based on available data, the classification criteria are not met.
  - LD/LC50 values relevant for classification:
    - Oral LD50 >5,000 mg/kg (rat)
    - Dermal LD50 >2,000 mg/kg (rabbit)
    - 1333-86-4 Carbon black
      - Oral LD50 10,000 mg/kg (rat)
  - Primary irritant effect:
    - Skin corrosion/irritation Based on available data, the classification criteria are not met.
    - Serious eye damage/irritation Based on available data, the classification criteria are not met.
    - Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
    - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
      - Germ cell mutagenicity Based on available data, the classification criteria are not met.
      - Carcinogenicity Based on available data, the classification criteria are not met.
      - Reproductive toxicity Based on available data, the classification criteria are not met.
      - STOT-single exposure Based on available data, the classification criteria are not met.
      - STOT-repeated exposure Based on available data, the classification criteria are not met.
      - Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity:
    - LC50/96 h >100 mg/l (Pimephales promelas)
    - EC50 >10,000 mg/l (Daphnia magna)
  - 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.
  - Additional ecological information:
    - General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - Not hazardous for water.

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

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Recommendation Disposal according to official regulations

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- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number
- ADR, ADN, IMDG, IATA: Void
- 14.2 UN proper shipping name
- ADR, ADN, IMDG, IATA: Void
- 14.3 Transport hazard class(es)
- ADR, ADN, IMDG, IATA: Void
- Class: Void
- 14.4 Packing group
- ADR, IMDG, IATA: Void
- 14.5 Environmental hazards:
- Marine pollutant: No
- 14.6 Special precautions for user
- Not applicable.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- Not applicable.
- UN "Model Regulation": Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I: None of the ingredients is listed.
- 15.2 Chemical safety assessment:
- A Chemical Safety Assessment has not been carried out.

SECTION 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.

- Department issuing SDS: Technical Documentation
- Contact: Technical Documentation
- 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
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  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)
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
- Sources:
  - www.echa.europa.eu
  - www.baua.de
  - IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance:
    - www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp
    - www.dguv.de/ifa/gestis/gestis-dnel-liste
- * Data compared to the previous version altered.