Material Safety Data

1. Identification of the Substance/Preparation and the Company/Undertaking

1.1. Product identifier

Substance or preparation trade name: GOUGING CARBON ELECTRODES

Unique reference numbers(s): AGC5/32 X12”
AGC3/16X12”
AGC1/4X 12”
AGC5/16X12”
AGC3/8X12”
AGC1/2X12”
AGCJ 5/16X17”
AGCJ 3/8X17”
AGCJ 1/2X17”
AGCJ 5/8X17”
AGCJ 3/4X17”

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Carbon Arc Gouging

1.3. Details of the supplier of the safety data sheet

Company/undertaking name & address: Parweld Ltd, Long Bank, Bewdley, Worcs, UK
ABN: 95 000 029 729
Telephone number: +00 44 1299 266800
Emergency telephone number: *+00 44 1299 266800*

1.4. Emergency telephone number

Emergency tel: *+00 44 1299 266800* (office hours only)

2: Hazards identification2.1.Classification of the substance or mixture

2.1.Classification of the substance or mixture

Classification according to Regulation (EC) 1271/2008 [CLP] applicable

2.2. Label elements

n/a

2.3. Other hazards

There are no recognized hazards associated directly with unused electrodes prior to gouging. Packaged consumables may be heavy, and should be handled and stored with care. Some low levels of dust may be produced during handling. DO NOT BREATHE THE DUST.
When using these electrodes as part of the gouging process additional potential hazards are likely:

Electric shock from the welding equipment or electrode. This can be fatal.
Noise produced from the gouging process. WEAR EAR PROTECTION
Hot metal spatter and heat, which can cause burns to the hand and body, and may cause fire if in contact with combustible materials.
UV, IR and light radiation from the arc, which can produce 'arc eye' and possible eye damage to unprotected eyes. WEAR SUITABLE PROTECTIVE EQUIPMENT.

3. Composition/information on ingredients

3.2. Mixtures

COMPONENT	Chemical Symbol	Amount	CAS Number
Graphite	C	>95%	7440-44-0
Copper	Cu	<5%	7440-50-8

4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with: Water
When in doubt or if symptoms are observed, get medical advice.

Eye contact: Rinse immediately carefully and thoroughly with eye-bath or water.
In case of eye irritation consult an ophthalmologist

Ingestion: Rinse mouth thoroughly with water.
Do NOT induce vomiting.

Inhalation: No special measures are necessary.
Provide fresh air.

4.2 - Most important symptoms and effects, both acute and delayed

Inhalation: inhalation of fume may cause irritation of the respiratory system in susceptible persons

5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO2) Foam Extinguishing powder
Unsuitable extinguishing media	Full water jet

5.2. Special hazards arising from the substance or mixture

No information available.

5.3. Advice for fire-fighters

Wear Self container breathing apperatus

6. Accidental release measures

6.1 Personal precautions

Local fume extraction must be adequate to keep fume concentrations within safe limits. Use respiratory equipment when gouging in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Skin contact should be avoided to prevent possible allergic reactions.

6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.4 - Reference to other sections

Disposal: see section 13
Personal protection equipment: see section 8

7. Handling and storage

7.1. Precautions for safe handling

Ensure adequate ventilation for the welder and others. Use respiratory equipment when gouging. Wear protective clothing and eye protection appropriate to arc welding. Remove all flammable materials and liquids before welding

Advices on general occupational hygiene Wash hands before breaks and immediately after handling the product

7.2. Conditions for safe storage, including any incompatibilities

Store welding consumables inside a room without humidity. Do not store welding consumables directly on the ground or beside walls. Store away from chemical substances like acids which could cause chemical reactions.

8. Exposure Controls/Personal protection

8.1 Control parameters

Fume component	CAS No.	ES-TWA	ES-STEL
Total welding fume (particulate)	–		5
Copper	7440-50-8	0.2	
Fume			
Dust		1	
Graphite			
Total inhalable dust	7440-44-0	10	
Respirable dust		4	
Carbon Dioxide	124-38-9	5000ppm	15000ppm
Carbon Monoxide	630-08-0	30ppm	200ppm
Nitrogen dioxide (NO2)	10102-44-0	3ppm	5ppm
Ozone (O3)	10028-15-6	0.2 ppm	
Nitrogen monoxide (NO)	10102-43-9	25ppm	35ppm

8.2 Exposure controls

Appropriate engineering controls General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits.

Individual protection measures, such as personal protective equipment

Wear eye protection appropriate for welding, Skin contact should be avoided to prevent possible allergic reactions. Wear body protection which helps to prevent injury from radiation,

sparks and electric shock. Use respiratory equipment when gouging in a confined space. Wear protective clothing and eye protection appropriate to arc welding

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Odour	Odour less
No data available	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
flammability	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Density	2.26g/cm3
Solubility (Water)	Not soluable
Solubility (Ethanol)	No data available
Solubility (Acetone)	No data available
Solubility (Organic solvents)	No data available
Log KOC	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available

9.2 - Other information

10. Stability and reactivity

10.1 - Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 - Possibility of hazardous reactions
- No hazardous reaction.

10.4 - Conditions to avoid
- No information available.

10.5 - Incompatible materials
- No information available.

10.6 - Hazardous decomposition products
- Does not decompose when used for intended uses.

11. Toxicological information

11.1 - Information on toxicological effects

Acute toxicity	- Excessive exposures may affect human health, as follows: Aspiration may cause pulmonary oedema and pneumonitis Short-term overexposure can cause dizziness, nausea and irritation of the nose, throat or eyes.
Skin corrosion/irritation	- Not classified
Serious eye damage/eye irritation	- Not classified
Respiratory or skin sensitisation	- May cause sensitisation by skin contact
Germ cell mutagenicity	- Not classified
Carcinogenicity	- Gouging fumes are possibly carcinogenic to humans
Reproductive toxicity	- Not classified
STOT-single exposure	- Not classified
STOT-repeated exposure	- Not classified
Aspiration hazard	- Not classified

12. Ecological information

12.1. Toxicity

LC50 96h fish	Manganese: 2,91 mg/l Aluminium oxide: >100 mg/l Salmo trutta
IC50 algae 72h	Manganese: 0,55 mg/l Aluminium oxide: >100 mg/l Selenastrum capricornatum (green algae)
EC50 Daphnia 48h	Manganese: 5,2 mg/l Aluminium oxide: >100 mg/l Daphnia magna (Water flea)

12.2 - Persistence and degradability

N/A

12.3 - Bioaccumulative potential

Bioconcentration factor (BCF)	Iron: 140000 Manganese: 59052

12.4 - Mobility in soil

N/A

12.5 - Results of PBT and vPvB assessment

N/A

12.6 - Other adverse effects

N/A

13 Disposal Considerations

13.1 - Waste treatment methods

Waste treatment methods - Dispose of waste according to applicable legislation.

Waste code (EWC) - 12 01 13 – welding waste

14. Transport information

14.1. UN number

N/A

14.2. UN proper shipping name

N/A

14.3. Transport hazard class(es)

N/A

14.4. Packing group –

N/A

14.5. Environmental hazards

N/A

14.6 - Special precautions for user

N/A

14.7 - Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

N/A

15. Regulatory information

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

EU regulations The product does not need to be labelled in accordance with EC directives or respective national laws.

National regulations

EH40/2005 Workplace exposure limits
The Waste Regulations 2011 No. 988 Local laws and regulations should be carefully observed

15.2 - Chemical Safety Assessment

N/A

16. Other Information

SDS versions

Revision This document differs from the previous version in all sections.

Texts of the regulatory sentences

H314 – Causes severe skin burns and eye damage
H350 – May cause cancer

Further information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.