



SAFETY DATA SHEET

This Safety Data Sheet complies with Regulation (EC) No 1907/2006, 1272/2008, ISO 11014-1 and ANSI Z400.1

DC GOUGING COPPERCLAD ELECTRODES

Issued: 2016-07-19

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

1.1. Product identifier

Trade name DC GOUGING COPPERCLAD ELECTRODES

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

Not applicable

1.3. Details of the supplier of the safety data sheet

SDS created by TDST

Supplier ESAB DENTON

Street address 2800 Airport Road
Denton, TX 76207

Telephone 1-800-372-2123

Email sds.esab@esab.se

Web site www.esab.com

1.4. Emergency telephone number

Emergency phone number 1-800-372-2123

Available outside office hours No

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The product is not classified

2.2. Label elements

The product do not require labeling

2.3. Other hazards

Not applicable

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No.	Concentration	Classification	R-phrase H-phrase
Graphite	7782-42-5 -	66 - 88%	- -	- -



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Copper	7440-50-8 231-159-6 01-2119480154 - 42	10 - 30%	- -	- -
Carbon Black	1333-86-4 - -	2 - 4%	- -	- -

SECTION 4: First aid measures

4.1. Description of first aid measures

No first aid measures should be required for the unused electrodes.

Skin contact Flush skin with large amounts of water. If irritation develops and persists, get medical attention.

Eye contact Flush eyes with water as a precaution.

Ingestion DO NOT induce vomiting unless directed to do so by a physician or poison control center.

Information for doctors Get medical attention/advice if you feel unwell.

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

Not applicable

4.3. Indication of any immediate medical attention and special treatment needed

Not applicable

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media use dry chemical, CO2, water spray or "alcohol" foam

5.2. Special hazards arising from the substance or mixture

Not applicable

5.3. Advice for firefighters

Not applicable

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Not applicable

6.2. Environmental precautions

Not applicable



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6.3. Methods and material for containment and cleaning up

Not applicable

6.4. Reference to other sections

Not applicable

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

No special technical protective measures required.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry place.

7.3. Specific end use(s)

Not applicable

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

OSHA PEL (mg/m3): Carbon Black = 3.5 ACGIH TLV (mg/m3): Carbon Black = 3.5, Graphite, Synthetic = 2, Graphite, Natural = 2 OSHA PEL (mg/m3): Copper (mists and dust) = 1, ACGIH TLV (mg/m3): Copper (mists and dust) = 1 OSHA PEL (mg/m3): Copper (fume) = 0.1, ACGIH TLV (mg/m3): Copper (fume) = 0.2

National occupational exposure limits

Ingredient	CAS no.	EC No.	Exposure limit mg/m3-ppm	Short-term exposure limit mg/m3-ppm	Remark	Source	Year
Copper	7440-50-8	231-159-6	0,1	-	as Cu(fume)	OSHA	2016
Copper	7440-50-8	231-159-6	1	-	as Cu(dust, mist)	OSHA	2016
Graphite	7782-42-5	-	1,5	-	-	OSHA	2016
Carbon Black	1333-86-4	-	3,5	-	-	OSHA	2016

8.2. Exposure controls

Not applicable

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties



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Appearance	Copper plating for the surface of the black carbon rod
Appearance, colour	Not applicable
Appearance, physical state	Not applicable
Auto-ignition temperature	Not applicable
Boiling point	Carbon 4027 degrees celsius, Copper 2927 degrees celsius
Decomposition temperature	Not applicable
Evaporation rate	Not applicable
Explosive properties	Not applicable
Flammability (solid, gas)	Not applicable
Flash point	Not applicable
Initial boiling point and boiling range	Not applicable
Melting point	Carbon 3527 degrees celcius, Copper 1084 degrees celsius
Melting point / freezing point	Not applicable
Odour	Not applicable
Odour treshold	Not applicable
Oxidising properties	Not applicable
Partition coefficient: n-octanol / water	Not applicable
pH value	Not applicable
Physical state	Solid
Relative density	Carbon 1.7g/cm ³ , Copper 8.9g/cm ³
Solubility	Not applicable
Upper / lower flammability or explosive limits	Not applicable
Vapour density	Not applicable
Vapour pressure	Not applicable
Viscosity	Not applicable

9.2. Other information

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity



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Reactivity No hazards to be especially mentioned.

10.2. Chemical stability

Chemical stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Not applicable

10.4. Conditions to avoid

Not applicable

10.5. Incompatible materials

Not applicable

10.6. Hazardous decomposition products

Not applicable

SECTION 11: Toxicological information

11.1. Information on toxicological effects

acute toxicity Not applicable

skin corrosion/irritation Not applicable

serious eye damage/irritation Not applicable

Respiratory/skin sensitization Not applicable

germ cell mutagenicity Not applicable

Genotoxicity Not applicable

carcinogenicity WARNING! This product contains a chemical known in the State of California to cause cancer. California Prop. 65

reproductive toxicity Not applicable

STOT-single exposure Not applicable

STOT-repeated exposure Not applicable

Aspiration hazard Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Aquatic not water endangering

12.2. Persistence and degradability



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Not applicable

12.3. Bioaccumulative potential

Not applicable

12.4. Mobility in soil

Not applicable

12.5. Results of PBT and vPvB assessment

Not applicable

12.6. Other adverse effects

Not applicable

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations Can be landfilled, when in compliance with local regulations.

SECTION 14: Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

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

SECTION 15: Regulatory information



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

National regulations EPCRA/SARA Title III 313 Toxic Chemicals

15.2. Chemical safety assessment

Not applicable

SECTION 16: Other information

Other

Additional information For further information, please also consult our Internet site Information derived from practical experience. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.