

# SAFETY DATA SHEET

## GC001 Gouging carbon electrodes



Version number: 1

Replaces SDS: 2009-11-23

Issued: 2020-03-05

**Not for sale in the USA**

### Section 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### 1.1 Product identifier

**Trade name** Messer Gouging Carbon DCCC Jointed, Messer Gouging Carbon Pointed.

**Article-no**

Product/Article	Diameter(inch)	Packaging (ea)	Part Number
Messer Carbon DCCC Jointed	½ x17	50	11200997
Messer Carbon DCCC Jointed	½ x 17	50	11190372
Messer Carbon DCCC Jointed	¾ x17	50	11190376
Messer Carbon DCCC Jointed	3/8 x 17	50	11190378
Messer Carbon DCCC Pointed	½ x 12	50	11190371
Messer Carbon DCCC Pointed	¼ x 12	50	11190373
Messer Carbon DCCC Pointed	1/8 x 12	100	11190374
Messer Carbon DCCC Pointed	3/8 x 12	50	11190377
Messer Carbon DCCC Pointed	3/8 x 12	50	11197656
Messer Carbon DCCC Pointed	3/16 x 12	50	11190375
Messer Carbon DCCC Pointed	5/16 x 12	50	11190379
Messer Carbon DCCC Pointed	5/32 x 12	50	11190380

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

**Article type** CAG Carbon arc Gouging  
**Use** Arc Air gouging

#### 1.3 Details of the supplier of the safety data sheet

**Supplier** Messer Canada Inc.  
**Street address** 5860 Chedworth Way, Mississauga  
Ontario L5R 0A2  
Canada  
**Telephone** 1-866-385-5349  
**Email** info@messer-ca.com

#### 1.4 Emergency telephone number

**Available outside office hours** Yes  
**Emergency phone number** (24 Hour) : (905) 501-0802 or CHEMTREC (800) 424-9300

Other

**Additional product information** Web site: [www.messer-ca.com](http://www.messer-ca.com)

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### Section 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification according to applicable national Regulations.

#### 2.2 Label elements

Refer to label.

#### 2.3 Other hazards

When the product is used in the gouging process the most important hazards are:

Overexposure to fumes and gases from gouging can be dangerous to health.

Watch out for splatter, hot metal and slag. It may cause skin burn and cause fire.

Excessive noise.

Arc rays can injure eyes and burn skin. Electric shock can kill. Avoid touching live electrical parts.

### Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Substances

This product is a mixture and please refer to Section 3.2

#### 3.2 Mixtures

Component	Chemical Symbol	Amount	CAS Number
Fixed carbon (graphite)	C	>95%	7440-44-0 (7782-42-5)
Copper	Cu	<5%	7440-50-8

LD50 LC50  
N/Av N/Av  
9 g/kg (mouse,oral) N/Av

This product may also contain 0.1 to 1.0 % of Crystalline silica, quartz cas#14808-60-7.

### Section 4. FIRST AND MEASURES

#### 4.1 Description of first aid measures

**Inhalation**

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms occur.

**Skin contact**

Burns should be treated by a doctor.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Burns from radiation, see doctor.

**Ingestion**

Contact a doctor if more than an insignificant amount has been swallowed.

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

**Inhalation**

Inhalation of vapours may cause irritation of the respiratory system in very susceptible persons.

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

Not available

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### Section 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable extinguishing media** Carbon dioxide (CO<sub>2</sub>), powder or diffuse jet of water. In case of major fire: Extinguish fire with diffuse jet of water or foam.

#### 5.2 Special hazards arising from the substance or mixture

Not available

#### 5.3 Advice for fire fighters

**Special protective equipment for fire fighters** No specific measures required for these electrodes prior to gouging.  
Gouging should not be carried out in the presence of flammable materials, vapours, tanks, cisterns and pipes and other containers which have held flammable substances unless these have been checked and certified safe.  
During a fire, irritating/toxic smoke and fumes may be generated. Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and cans exposed to heat and flame.

### Section 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits. Use respiratory equipment when welding 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.

#### 6.3 Methods and material for containment and cleaning up

Not applicable

#### 6.4 Reference to other sections

For *Personal protection* see section 8. For *Disposal* see section 13. For *Environmental precautions* see section 12. For *Precautions for safe handling* see 7.1.

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### Section 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

<b>Preventive handling precautions</b>	Ensure adequate ventilation for the welder and others. Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Remove all flammable materials and liquids before welding.
<b>General hygiene</b>	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.

#### 7.3 Specific end use(s)

Welding process.

### Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

Fume component	CAS №.	TLV-TWA	TLV-STEL
Total welding fume (particulate)	-	-	-
Copper			
Fume	7440-50-8	0.2 mg/m <sup>3</sup>	N/Av
Dust		1mg/m <sup>3</sup>	
Graphite			
Total inhalable dust	7440-44-0	2 mg/m <sup>3</sup>	N/Av
Respirable dust		(respirable fraction)	
Carbon Dioxide	124-38-9	5000ppm	30000ppm
Carbon Monoxide	630-08-0	25ppm	N/Av
Nitrogen dioxide (NO <sub>2</sub> )	10102-44-0	0.2ppm	N/Av
Ozone (O <sub>3</sub> )	10028-15-6	-	N/Av
Nitrogen monoxide (NO)	10102-43-9	25ppm	N/Av

#### 8.2 Exposure controls

*Environmental Exposure Controls – Refer to Section 6 of this SDS*

<b>Technical precaution measures</b>	General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits.
<b>Eye / face protection</b>	Wear eye protection appropriate for welding.
<b>Safety gloves</b>	Skin contact should be avoided to prevent possible allergic reactions.
<b>Other skin protection</b>	Wear body protection which helps to prevent injury from radiation, sparks and electric shock.
<b>Respiratory protection</b>	Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding.

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### Section 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

<b>Appearance, colour</b>	Grey
<b>Appearance, physical state</b>	Rod
<b>Auto-ignition temperature</b>	Not applicable
<b>Auto-flammability</b>	Not auto-flammable
<b>Decomposition temperature</b>	Not applicable
<b>Evaporation rate</b>	Not applicable
<b>Explosive properties</b>	Not explosive
<b>Flammability (solid gas)</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Form</b>	Fast
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Melting point / Freezing point</b>	Not available
<b>Odour</b>	Odourless
<b>Odour threshold</b>	Not available
<b>Oxidising properties</b>	Not available
<b>Partition coefficient: n-octanol / water</b>	Not applicable
<b>pH value</b>	Not applicable
<b>Relative density</b>	Not applicable
<b>Solubility</b>	Not available
<b>Solubility in water</b>	Insoluble
<b>Upper / lower flammability or explosive limits</b>	Not applicable
<b>Vapour density</b>	Not applicable
<b>Vapour pressure</b>	Not applicable
<b>Viscosity</b>	Not applicable

#### 9.2 Other information

Not applicable

Other

<b>Density</b>	Not Relevant
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### Section 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

Not available

#### 10.2 Chemical stability

Stable under the recommended storage and handling conditions prescribed. Hazardous polymerization will not occur. Incompatible materials and conditions to avoid are usually related to welding.

#### 10.3 Possibility of hazardous reactions

Not available

#### 10.4 Conditions to avoid

None under normal conditions

#### 10.5 Incompatible materials

Not available

#### 10.6 Hazardous decomposition products

Welding fumes and gases. Additional fume may arise from coatings and contaminants on the base material.  
Hazardous combustion products - Carbon oxides and other irritating/toxic fumes and smoke.

### Section 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Conditions to avoid: none in the form supplied

When welding, fumes and gases generated can be dangerous to health.

<b>Acute toxicology</b>	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.
<b>Irritation</b>	Not available
<b>Corrosive effects</b>	Not available
<b>Sensitisation</b>	May cause sensitisation by skin contact
<b>Mutagenicity</b>	Not available
<b>Carcinogenicity</b>	Welding fumes are possibly carcinogenic to humans
<b>Repeated dose toxicity</b>	Not available
<b>Reproductive toxicity</b>	Not available

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**Synergistic materials** Not available

### Section 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

The welding process can effect the environment if fume is released directly into the atmosphere. Residues from welding consumables could degrade and accumulate into soils and ground water.

##### Acute fish toxicity

LC50 Fish 96h:  
Manganese: 2,91 mg/l  
Aluminiumoxide: >100 mg/l Salmo trutta

##### Acute algae toxicity

IC50 Algae 72h:  
Manganese: 0,55 mg/l  
Aluminiumoxide: >100 mg/l Selenastrum capricornatum (green algae)

##### Acute crustacean toxicity

EC50 Daphnia 48h:  
Manganese: 5,2 mg/l  
Aluminiumoxide: >100 mg/l Daphnia magna (Water flea)

#### 12.2 Persistence and degradability

Not available

#### 12.3 Bio accumulative potential

Bioconcentration factor (BCF):

Iron: 140000

Manganese: 59052

#### 12.4 Mobility in Soil

Not available

#### 12.5 Results of PBT and vPvB assessment

Not available

#### 12.6 Other adverse effects

Not available

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### Section 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

**Disposal considerations** Dispose of any product, residue or packing material according to national and local regulations. Spent fume extraction filters shall be disposed of as dangerous waste.

Other

**Waste code** Packaging and rod scrap should be disposed of as general waste or recycled. No special precautions are required for this product. Fume collected from extraction units should be disposed of in accordance with local regulations (including Provincial and Federal Regulations). Collect all spillage.

### 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

Not applicable

Other

**Dangerous goods** No special requirements are necessary in transporting these products. Transportation of Dangerous Goods Regulations (TDGR):  
TDG Classification: NOT REGULATED  
Special case: N/Ap



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### Section 15. REGULATORY INFORMATION

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

**EU regulations** Refer to national Regulations.

**National regulations** WHMIS Label Information: **WARNING**. Do not remove or cover this Warning. Protect yourself and others. Read and understand this information. Electric shock can kill. Keep your head out of the fume. Arc rays and fume can affect others in your workplace. Comply with your employer's safety practices and procedures: protect others.  
Safety data sheet available on request from [www.messer-ca.com](http://www.messer-ca.com).  
WHMIS information: Product is regulated according to the Controlled Product Regulations (CPR) in Canada. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this SDS contains all the information required by the CPR.  
WHMIS classification: D2A - Toxic Material with other effects.

#### 15.2 Chemical safety assessment

Not available

### Section 16. OTHER INFORMATION

**References to key literature and data sources** The customer should provide this Safety Data Sheet to any person involved in the materials use or further distribution. Messer World requests the users (or distributors) of this product to read this Safety Data Sheet carefully before usage.

**Prepared by MESSER CANADA INC.**

#### References

Safety Data Sheets from manufacturer/supplier.

Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2014.

#### Phrase meaning

#### Abbreviations

ACGIH American Conference of Governmental Industrial Hygienists

CAS Chemical Abstract Service

IARC International Agency for Research on Cancer

LC Lethal concentration

LD Lethal Dosage

N/Ap Not applicable

N/Av Not available

NIOSH National Institute for Occupational Safety and Health

STEL Short-term Exposure Limit

TLV Threshold Limit Value

TWA Time Weighted Average

WHMIS Workplace Hazardous Materials Information System

Other

#### Manufacturer's notes

The information contained in this Safety Data Sheet relates only to the specific materials designated and may not be valid for such material used in combination with any other material or in any process.

Information is given in good faith and is based on the latest information available Messer World and is, to the best of Messer world's knowledge and belief, accurate and reliable at the time of preparation. However, no representation, warranty or guarantee is made as to the accuracy, reliability or completeness of the information, and Messer World assumes no responsibility and disclaims any liability incurred in using this information.

The product is supplied on the condition that the user accepts the responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. Freedom from patent rights must not be assumed.

Read this Safety Data Sheet carefully and become aware of hazards implied and the safety information.

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