
Section 1 | Identification of the substance/mixture of the company/undertaking

1.1. Product identifier

- motomig SG2 wire 550.5
- motomig SG2 wire 550.7
- motomig SG2 wire 550.8
- motomig SG3 wire 552.5
- motomig SG3 wire 552.7
- motomig SG3 wire 552.8

1.2. Relevant identified uses of substances or mixture and uses advised against

Used as a welding consumable

1.3. Details of the supplier of the safety data sheet

Motofil, S.A

Rua Tomé de Barros Queirós, 135

Zona Industrial das Ervasas

3830-252 Ílhavo

Portugal

Tel: +351 234 320 900

Fax: +351 234 320 916

E-mail: geral@motofil.pt

Site: www.motofil.pt

1.4. Emergency telephone number

CIAV (Centro Informação Anti-Venenos): +351 808 250 143

Section 2 | Hazards Identification

2.1. Classification of the substance or mixture

It presents on the market as:

- Odour: Odourless
- State: Solid welding wire. Insoluble in water
- Not inflammable
- Not reactive

Classification according to Regulation (EC) No 1271/2008, as last amended: not classified

The packaging of the product is not hazardous and it must always be handled with glove to not cause oxidation on the surface

2.2. Label elements

Hazard pictogram: Not applicable

Signal words: Not applicable

H statements and P statements: See section 16

2.3. Other hazards

Wear protective gloves to avoid cuts and skin contact when handling the product

The hazards associated to this product at the time of welding are high temperatures, non-ionising radiation, electric shock, burning spatters, inhalation of metal fumes and gas, in particular, carbon monoxide, ozone and nitrous compounds, and fire hazard;

- Inhalation: The inhalation of welding fumes may cause nausea, dizziness and respiratory irritation. The overexposure to the welding fumes may cause pulmonary dysfunction. Sufficient ventilation and extraction must be assured
- Ingestion: Not applicable

- Skin contact: May cause shocks or burns due to the spatters or non-ionising radiations (IR (infrared) and UV (ultraviolet))
- Eye contact: The electric arc may injure eyes

Section 3 | Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Wire composition	Concentration (w/w (%))	CAS no	EINECS no	Risk Classification
Iron (Fe)	>91	7439-89-6	231-096-4	No
Manganese (Mn)	1,30-1,60	7439-96-5	231-105-1	No
Silicon (Si)	0,70-1,00	7440-21-3	231-130-8	No
Copper(Cu)	<0,35	7440-50-8	231-159-6	No
Carbon (C)	0,06-0,14	7440-44-0	231-153-3	No

Section 4 | First aid measures

4.1. Description of the first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Provide artificial respiration or call a physician in case of respiratory arrest

Skin contact: Remove clothes and shoes and, if possible, cut them. For burns rinse with cold water. Call a doctor

Eye contact: In case of the eyes be affected by electric arc or fumes, wash the eyes with the eyelids opened with tap water and call a doctor

Electrical shock: Unplug the equipment and remove the victim from possible active parts, with the help of a non-conductive material. If respiratory arrest occurs, initiate artificial respiration and call a doctor, immediately

The rescuer must, when possible, use examination gloves and/or other equipment adequate to the situation.

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

See section 11

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

Not relevant

Section 5 | Firefighting measures

5.1. Extinguishing media

This material is not inflammable. However, the electrical arc may be a source of ignition of combustible material. Use extinguishing media adequate to the environment you are inserted in.

5.2. Special hazards arising from the substance or mixture

The fire may cause toxic gases and/or irritating and may contain, among others:

Chemical Agents	CAS no
Nitrogen Dioxide	10102-44-0
Carbon Dioxide	124-38-9
Manganese	7439-96-5
Carbon Monoxide	630-08-0
Ozone	10028-15-6

5.3. Advice for firefighters

Use respiratory equipment and clothes adequate to the environment they are inserted in.

Section 6 | Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use protective gloves to avoid cuts or stings when handling the solid product. At the time of welding, use the adequate protective equipment, like respiratory mask and welding mask to protect you against the radiation. Protect hands, body, head and neck with flame retardant materials

6.2. Environmental precautions

Over the time, the welding wire may degrade so it must be avoidable the accumulation on soils which may lead to the contamination of ground waters

6.3. Methods and materials for containment and cleaning up

There is no need for special precautions due to the solid nature of the material
Remove, preferably, via mechanical means

6.4. Reference to other sections

Not applicable

Section 7 | Handling and storing

7.1. Precautions of safe handling

The packages of motomig must be handled so they do not suffer shocks, collisions and falls.

Do not lie or roll over the welding wire drums, when handling them. Always lift the drums with the help of two straps on both sides to avoid abrupt oscillations.

Always handle the welding consumables with protective gloves to avoid cuts or stings as well as the oxidation of the wire's surface.

Do not eat, drink or smoke in working areas.

Wash your hands after using.

Avoid exposing pregnant women to welding acts.

7.2. Conditions for safe storage, including any incompatibilities

Do not overlap pallets neither plant more than 8 levels of boxes in each pallet.

The packages must not be stored or transported in an humid environment or together with liquids that are prone to spill. Always keep in dry place

7.3. Specific end use(s)

Ordinary uses of welding

Section 8 | Exposure controls/personal protection

8.1. Control parameters

Not applicable to solid product The limit values during its ordinary use may vary in accordance to the legislation of each country, as some agents, as indicative:

Substances whose limit values of threshold must be controlled in the working environment (Decree Law No 24/2012 and the Portuguese standard NP 1796 (2014))

Chemical Agents	TLV-TWA	TLV-STEL	Reference
Nitrogen Dioxide	0,2 ppm	-	NP 1796 2014
Carbon Dioxide	5000 ppm	30000 ppm	
Manganese	0,1 mg/m ³	-	
Carbon Monoxide	25 ppm	-	
Ozone	0,05 a 0,20 ppm	-	

Threshold limit value - Time weighted average (TLV-TWA) - Average exposure on the basis of a 8h/day, 40/week work schedule, to which it considers that almost every worker may be exposed, day after day, without adverse health effects

Threshold limit value - Short-term exposure limit (TLV-STEL) - Exposure that considers almost every worker may be repeatedly exposed for shorts periods of time, as long as the value of TLV-TAW is not exceeded and without adverse effects.

Note: The exposures superior to the TLV-TAW and inferior to the TLV-STEL must not exceed 15 min and must not be repeated more than 4 times per day. These exposures must occur with at least 60 min between them.

8.2. Exposure controls

Ventilation: Sufficient ventilation and extraction must be assured in the arc zone to avoid the inhalation of welding fumes. Training the welder to maintain his head away from the welding fumes.

Respiratory protection: Use an adequate respiratory equipment when the welding is done in confined spaces or with insufficient ventilation. Special attention when welding coated or painted steel that may leak hazardous substances

Eye/face protection: The welder or anyone who is around must wear a welder masks with adequate filters

Skin protection: Protect hands, body, head and neck to avoid burns resulting from thermal hazards (splatters) and radiation hazards (non-ionising radiation). Wear welding gloves, masks with filters, welding aprons, safety shoes with its laces protected, protections for the arms and shoulders. Keep your clothes clean and dry.

Section 9 | Physical and chemical properties

9.1. Informações sobre propriedades físicas e químicas

- Appearance: Solid welding wire
- Odour: Odourless
- Odour threshold: Not applicable, odourless
- pH: Neutral
- Melting point/freezing point 1000 °C
- Initial boiling point and boiling range: Not applicable, wire in solid state
- Flash point: Not applicable, not inflammable
- Evaporation rate: Not applicable, wire in solid state
- Flammability (solid, gas): Not inflammable, not combustible
- Upper/lower flammability or explosive limits: Not applicable, not inflammable and not combustible
- Vapour pressure: Not applicable, wire in solid state
- Vapour density: Not applicable, not inflammable and not combustible
- Relative density: 7.85
- Solubility(ies) Insoluble in water
- Partition coefficient n-octanol/water: Not determined
- Auto-ignition temperature: Not applicable, not combustible
- Decomposition temperature: Not determined
- Viscosity: Not applicable, wire in solid state
- Explosive properties: Not explosive
- Oxidising properties: Not combustible

9.2. Other information

Not applicable

Section 10 | Stability and reactivity

10.1. Reactivity

This material is stable in ordinary conditions

10.2. Chemical stability

This material is stable in ordinary environmental conditions and in predictable temperature and pressure conditions during the storage and its handling

10.3. Possibility of hazardous reactions

Possibility of hazardous gas leaks, radiation and splatters at the time of welding.

10.4. Conditions to avoid

Not relevant

10.5. Incompatible materials

The product is incompatible with strong acids and basis and may generate hazardous gases and fumes.

10.6. Hazardous decomposition products

The gases and fumes were originated from the decomposition products that differ in percentage, quantity and shape than the substances listed in section 3. In regular operations, these products originate from reaction, oxidation or volatilisation of the constituent material of the wire, the parent metal or a possible coating of the latter. Therefore, the composition and quantity of decomposition products depends on not only the welding consumable but also the process and all the materials used in the welding. Some of the products of expected reactions may be founded in section 5.2.

Section 11 | Toxicological information

11.1. Information on toxicological effects

The inhalation of welding fumes and gases may be hazardous to health, due to the metal contained in the particles and gases from welding. It may cause rashes in the eyes, nose and throat, respiratory failure, bronchitis, muscle weakness, lethargy and damages to the nervous system.

Section 12 | Ecologic information

12.1. Toxicity

The welding produces burning spatters, gases and fumes that may cause negative effects in the environment and in health

12.2. Persistence and degradability

Low degradability

12.3. Bioaccumulative potential

Unknown potential

12.4. Mobility on soil

Unknown potential

12.5. Results of PBT and vPvB assessment

Not applicable

Section 13 | Disposal considerations

13.1. Waste treatment methods

The management of packages, leftovers of metal and residues from surface chemical treatments and coating of metals, that involves recovery and disposal operations, must be done in accordance to the current legislation.

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

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/79 and the IBC Code

Not applicable

Section 15 | Regulatory information

15.1. Safety, health and environmental regulations for the substance or mixture

Regulation (EC) No 1907/2006 REACH: non or nor relevant

15.2. Chemical safety assessment

The chemical safety assessment of this product was not carried out.

Secção 16 | Other information

The data on this sheet is based on our best knowledge until the date of publication and are given in good faith. However, they must be understood as a guide, as they do not constitute a warranty, since the operations with the product are not under our control and this company does not take any responsibility in losses or damages that may result from them. This data does not excuse, in neither case, the user of the product of complying and respecting the legislation and regulations applicable to the product, to the safety, hygiene and health protection of humans and the environment and to carry out sufficient verification and procedural efficacy tests. The workers involved are responsible for the safety and must have access to the data in this sheet to assure the safety when using this product

Classification and labelling

Not labelled as hazardous to supply

H Statements:

H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

P Statements:

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P402+P404	Store in a dry place. Store in a closed container.

Applicable law of the safety data sheet

This safety data sheet was drawn up in accordance to the ANNEX II - Guidance on the compilation of safety data sheets of the Regulation (CE) No 1907/2006 (Regulation (EU) No 453/2010, Regulation (EU) No 2015/830).