



SAFETY DATA SHEET
According to Regulation (EC) No 1907/2006
Elgatic 162

Version number: 3
Issued: 2020-03-25
Replaces SDS: 2016-03-30

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

1.1. Product identifier

Trade name Elgatic 162

Article No. 97351- XXXX

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

Product type GTAW Un- and Low-alloyed steel

Use Arc welding

1.3. Details of the supplier of the safety data sheet

Supplier ITW Welding AB

Street address Box 227
433 25 Partille
Sweden

Telephone +46 (0)31 726 46 00

Email sales.se@ITWwelding.com

Fax +46 (0)31 726 47 00

Web site www.elgawelding.com

Email address sds@elga.se

1.4. Emergency telephone number

Emergency phone number NHS 111

Available outside office hours Yes

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Description The product is not classified as hazardous according to Regulation (EC) No 1272/2008.

2.2. Label elements

More information The product does not require labelling in accordance with CLP Regulation (EC) No 1272/2008.

2.3. Other hazards

Other hazards This product contains nickel as classified as sensitizing and limited evidence of a carcinogenic effect. The form of this product does not contribute to a hazard classification of the product.

When the product is used in the welding process the most important hazards are:
Overexposure to fumes and gases from welding can be dangerous to health.
Watch out for splatter, hot metal and slag. It may cause skinburn and cause fire.
Arc rays can injure eyes and burn skin.
Electric shock: can kill. Avoid touching live electrical parts.

This substance does not fulfil the PBT/vPvB- criteria according to the REACH-regulations, Annex XIII.



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Other

Other

Metals in massive form do not require a label according to CLP (EC) No 1272/2008, if they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market, although classified as hazardous in accordance with the criteria of this regulation.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Manganese	7439-96-5 231-105-1 01-2119449803-34-XXXX -	0 - 5%	-	- - -	-
Nickel	7440-02-0 231-111-4 01-2119438727-29-XXXX -	0 - 1%	Carc. 2, STOT RE 1, Skin Sens. 1	H317, H351, H372 - -	-
Chromium	7440-47-3 231-157-5 01-2119485652-31-XXXX -	0 - 1%	-	- - -	-
Copper	7440-50-8 231-159-6 - -	0 - 1%	-	- - -	-
Molybdenum	7439-98-7 231-107-2 01-2119472304-43-XXXX -	0 - 1%	-	- - -	-
Silicon	7440-21-3 231-130-8 01-2119480401-47-XXXX -	0 - 1%	-	- - -	-
Aluminium	7429-90-3 231-072-3 - -	0 - 0.1%	-	- - -	-

Substance additional information

For the complete meaning of H phrases mentioned in this section, see section 16.



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SECTION 4: First aid 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 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	When symptoms persist or in all cases of doubt seek medical advice.

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. High concentrations of fumes and dusts may result in metal fume fever.
Skin contact	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

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

Indication of any immediate medical attention and special treatment needed	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	dry powder , foam , carbon dioxide (CO2) or Aquatic .
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Not applicable

5.3. Advice for firefighters

Measures in case of fire	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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.
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6.2. Environmental precautions

Environmental precautions	Try to prevent the material from entering drains or water courses.
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6.3. *Methods and material for containment and cleaning up*

Not applicable

6.4. *Reference to other sections*

Reference to other sections

For personal protection see section 8 and for disposal see section 13. See Section 7 for information on safe handling.

SECTION 7: Handling and storage

7.1. *Precautions for safe handling*

Preventive handling precautions

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. Wear body protection which help to prevent injury from radiation, sparks and electric shock.

General hygiene

Wash hands before breaks and immediately after handling the product.

7.2. *Conditions for safe storage, including any incompatibilities*

Conditions for safe storage, including any incompatibilities

No specific safety precautions necessary in the form supplied.

7.3. *Specific end use(s)*

Specific end use(s)

welding process ~ 7,8



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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure limits

Ingredient	CAS No. EC No.	Exposure limit ppm / mg/m ³	Short-term exposure limit ppm / mg/m ³	Source	Remark	Year
Copper	7440-50-8 231-159-6	- 0.2	- -	EH40/2005 Workplace exposure lim- its	fume	-
Copper	7440-50-8 231-159-6	- 1	- 2	EH40/2005 Workplace exposure lim- its	dusts and mists (as Cu)	-
Silicon	7440-21-3 231-130-8	- 10	- -	EH40/2005 Workplace exposure lim- its	inhalable dust	-
Silicon	7440-21-3 231-130-8	- 4	- -	EH40/2005 Workplace exposure lim- its	respirable dust	-
Chromium	7440-47-3 231-157-5	- 0.5	- -	EH40/2005 Workplace exposure lim- its	-	-

8.2. Exposure controls

Technical precaution measures

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

Eye / face protection

Wear eye protection appropriate for welding.

Safety gloves

Skin contact should be avoided to prevent possible allergic reactions. Wear suitable protective gloves where there is a risk of skin contact. heat insulating gloves .

Respiratory protection

Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Use respiratory protective equipment with particle filter, type P3.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance, physical state

Solid

Appearance, colour

Copper

Odour

odourless

Odour threshold

Not applicable

pH value

Not applicable



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Melting point / freezing point	No information available.
Initial boiling point and boiling range	No information available.
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	No information available.
Upper / lower flammability or explosive limits	No information available.
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density	No information available.
Density	No information available.
Solubility	No information available.
Water solubility	No information available.
Partition coefficient: n-octanol / water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	No information available.
Oxidising properties	No information available.

9.2. Other information

Other information	No additional information available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Not reactive under normal conditions.
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10.2. Chemical stability

Chemical stability	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Exothermic reaction with strong acids.
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10.4. Conditions to avoid

Conditions to avoid None known.

10.5. Incompatible materials

Incompatible materials Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Welding fumes and gases . Additional fume may arise from coatings and contaminants on the base material.

Fume analysis: wt %
Fe 55
Mn 10
Ni 1
Cr 0,1
Cu 1
Pb 0,2
F -
Cr is partly present as Cr(VI).

Refer to applicable national exposure limits for welding fume and its compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on toxicological effects Conditions to avoid: none in the form supplied.
When welding , fumes and gases generated can be dangerous to health.

Acute toxicity Based on available data, the criteria for classification cannot be considered to be met.

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 Based on available data, the criteria for classification cannot be considered to be met.

Serious eye damage/irritation Based on available data, the criteria for classification cannot be considered to be met.

Respiratory/skin sensitization Based on available data, the criteria for classification cannot be considered to be met.

Repeated or prolonged skin contact can result in sensitisation in susceptible individuals. Nickel is the most common of all causes of allergic contact dermatitis.

Germ cell mutagenicity Based on available data, the criteria for classification cannot be considered to be met.

Carcinogenicity Based on available data, the criteria for classification cannot be considered to be met.

Nickel is suspected to cause cancer by inhalation.
Some chromium compounds as Cr(VI) is suspected to cause cancer.
Welding fumes are possibly carcinogenic to humans by inhalation.

Reproductive toxicity Based on available data, the criteria for classification cannot be considered to be met.

STOT-single exposure Based on available data, the criteria for classification cannot be considered to be met.



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STOT-repeated exposure Based on available data, the criteria for classification cannot be considered to be met.

Nickel - Prolonged or repeated exposure may cause injuries to lungs.

Aspiration hazard Based on available data, the criteria for classification cannot be considered to be met.

LD50 Oral
Nickel : 30000 mg/kg (rat)
Maganese : 9000 mg/kg (rat)
Chromium : 19,8 mg/kg (rat)
Nickel : >5000 mg/kg (rat)
Silicon : 3160 mg/kg (rat)

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Overexposure to manganese may affect the nervous system.
Long-term overexposure may effect the lungs.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity The product is not classified as dangerous for the environment.

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

Aquatic Cr(VI) is suspected of being very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic enviroment.

Acute fish toxicity
LC50 Fish 96h:
Chromium : 3,4 mg/l Rainbow trout
Nickel : >100 mg/l Brachydanio rerio (zebra fish)
Maganese : 2,92 mg/l
Copper : 0,017 mg/l Rainbow trout
Molybdenum : 2600 mg/l

Acute algae toxicity
IC50 Algae 72h :
Maganese : 0,55 mg/l Chromium : 0,001 mg/l
Nickel : 0,18 mg/l Selenastrum capricornutum (green algae)
Copper : 0,392 mg/l Selenastrum capricornutum (green algae)
iron : 0,1 mg/l

Acute crustacean toxicity
EC50 Daphnia 48h:
Maganese : 5,2 mg/l
Chromium : 0,02 mg/l Daphnia pulex (Water flea)
Nickel : >100 mg/l Daphnia magna (Water flea) Copper : 0,0065 mg/l
iron : 5,2 mg/l

12.2. Persistence and degradability

Not applicable

12.3. Bioaccumulative potential

Bioaccumulative potential
Bioconcentration factor (BCF) :
chromium : 200
Nickel : 16
copper : 29
Maganese : 59052



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12.4. Mobility in soil

Not applicable

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

PBT/vPvB assessment is not made.

12.6. Other adverse effects

Other adverse effects

No other adverse effects.

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.

Waste code	Description
12 01 13	welding wastes
17 04 09*	metal waste contaminated with hazardous substances

Please note - an asterisk (*) next to a code denotes that it is HAZARDOUS WASTE.

Other

Waste code

The waste code is a recommendation.

SECTION 14: Transport information

14.1. UN number

UN number

Not classified as dangerous in the meaning of transport regulations.

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

Environmental hazards

No.

14.6. Special precautions for user

Special precautions for user

No special measures required.



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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not intended for bulk transport.

SECTION 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. Regulation (EC) No 1907/2006 of the European Parliament and of the Council, REACH. European Parliament and Council Regulation (EC) No 1272/2008, CLP.

National regulations Local laws and regulations should be carefully observed.
EH40/2005 Workplace exposure limit (2018, 3rd edition).
Waste Ordinance (2011:927).
Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH).

15.2. Chemical safety assessment

Chemical safety assessment No chemical safety assessment has been performed.

SECTION 16: Other information

Changes to previous revision Changes are made in the following sections: 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14 & 15.

Abbreviations EC50 - Effective Concentration 50%
LC50 - Deadly concentration for 50 % of a test population.
LD50 - Lethal Dose 50%
IC50 - Inhibitory Concentration 50%
PBT - Persistent, Bioaccumulative and Toxic
vPvB - very Persistent and very Bioaccumulative.
BCF - Bioconcentration factor

References to key literature and data sources www.prevent.se
C&L Inventory database

Phrase meaning Carc. 2 - Carcinogenicity, hazard category 2
STOT RE 1 - Specific Target Organ Toxicity — Repeated exposure, hazard category 1
Skin Sens. 1 - Skin sensitisation, hazard category 1
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

Other

Manufacturer's notes Read this Safety Data Sheet carefully and become aware of hazards implied and the Safety information