

MAGNA 307

DESCRIPTION:

Magna 307 is an all position alloy steel electrode developed for construction and repair work on mild steels, particularly 'on site' and in restrictive positions.

Magna 307 has evolved after extensive laboratory research and field testing and offers optimum quality and performance on a wide range of various job conditions.

High Quality Characteristics:

The outstanding properties of Magna 307 will offer a tensile strength of up to 59 Kg. mm² (84,000 p.s.i.) thus ensuring joints of maximum strength.

Ignition and re-ignition qualities are exceptionally good and the ease at which Magna 307 can be applied is remarkable.

Such characteristics will ensure high quality welds, even under adverse conditions, or where the welder has had limited experience.

Coating Chemistry:

Special materials which are easily ionized have been incorporated in the Magna 307 flux coatings.

The ease of ionization permits the establishing and maintenance of the arc at lower welding currents and low open-circuit voltages. Such a characteristic is of great assistance when welding thin sections as the use of low welding currents will prevent burn-through.

The Magna 307 coating forms a 'crucible action' at the tip of the electrode which controls the molecular velocity and stabilizes the arc. The crucible action also generates gases by pyrolysis of the coating together with ions and metal vapours of the core wire, thus producing a fine metallic spray transfer.

The protective gases which exclude atmospheric contaminants from the molten weld metal are highly effective thus ensuring sound, high strength welds.

The slag coating is extremely easy to remove and in most cases is self lifting. This will greatly save valuable time and effort.

APPLICATION

Magna 307 is applied with either a short arc or with the touch weld technique. AC or DC equipment can be used. When DC is used, reverse or straight polarity can be incorporated.

The electrode should be held at an angle of 30-40 degrees to the direction of travel when welding in the downhand position.

For vertical welds, the electrode should be held at approximately 10 degrees from the horizontal for vertical up, and for vertical down it should be held at an approximate angle of 45 degrees from the horizontal.

Recommended Amperages:

Metric	Inches	Gauge	Setting
4.0 mm.	5/32	8	65 - 190 amps
3.2 mm.	1/8	10	50 - 160 amps
2.4 mm.	3/32	12	30 - 115 amps

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: Magna 307
Container size: 2 kg, 4 kg

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

Application: Manual metal arc welding electrode.

1.3. Details of the supplier of the safety data sheet

<u>Supplier:</u>	GB importer:	<u>Distributed by:</u>	Trust Engineering Company
<u>Manufacturer:</u>	ITW PP & F Korea Limited 13th Fl., Unit B, PAX Tower 609 Eonju-ro, Gangnam-Gu Seoul, Korea 06108 Tel:+82-2-2088-3560 Fax:+82-2-513-3567 magna@magnagroup.com www.magnagroup.com		9 Abdel Hamid El Deeb Street Alexandria, 21613 Egypt T: +(20)3 5822779 T: +(20)10 1223554 5 Ahmed Shaker Street Fourth Zone Nasr City, 11586 Egypt T: +(20)2 26909965 T: +(20)10 1223553 info@trustengineering-eg.com www.trustengineering-eg.com
<u>Further information can be obtained from:</u>	magna@magnagroup.com		

1.4. Emergency telephone number

Emergency telephone: NHS: 111

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP: The product is not classified.

2.2. Label elements

Solid metals and alloys do not require a hazard label if they do not present a danger to human health or the environment in the form in which they are placed on the market. The information which would have appeared on the label is shown here.

Safety data sheet available on request.

2.3. Other hazards

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other: Prolonged or repeated exposure to welding fumes may cause damage to the lungs and respiratory system. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Only classified substances above threshold limits or substances with an exposure limit are shown.

CLP:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
50-100	7439-89-6	231-096-4	01-2119462838-24	Iron	-	#
7-13	13463-67-7	236-675-5	01-2119489379-17	Titanium dioxide	-	#
1-5	7439-96-5	231-105-1	01-2119449803-34	Manganese	-	#
1-5	9004-34-6	232-674-9	-	Cellulose	-	#
1-5	1317-65-3	215-279-6	-	Limestone	-	#
0.1-1	14808-60-7	238-878-4	-	Quartz	-	#

Notes: #: The substance has been assigned an exposure limit.

References: The full text for all hazard statements is displayed in section 16.

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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: Inhalation of welding fumes: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact: Do not rub eye. If irritation occurs during dust-raising work, flush with plenty of water for at least 15 minutes.

Ingestion: Not likely, due to the form of the product.

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

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

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

Medical attention/treatments: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Specific hazards: During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Environmental precautions: The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Not relevant.

6.4. Reference to other sections

References: For personal protection, see section 8.
For waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice: When welding: Do not breathe fumes. Observe good chemical hygiene practices.

Technical measures: No special precautions.

Technical precautions: When welding: Mechanical ventilation may be required.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions.

Storage conditions: Store in closed original container in a dry place.

7.3. Specific end use(s)

Specific use(s): Welding material

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
9004-34-6	Cellulose, inhalable dust	-	10 mg/m3	TWA	-	EH40
		-	20 mg/m3	STEL	15min	
9004-34-6	Cellulose, respirable dust	-	4 mg/m3	TWA	-	EH40
-	Manganese and its inorganic compounds, inhalable fraction	Mn	0.2 mg/m3	TWA	-	EH40
-	Manganese and its inorganic compounds, respirable fraction	Mn	0.05 mg/m3	TWA	-	EH40
13463-67-7	Titanium dioxide, total inhalable dust	-	10 mg/m3	TWA	-	EH40
13463-67-7	Titanium dioxide, respirable dust	-	4 mg/m3	TWA	-	EH40
-	Iron oxide, fume	Fe	5 mg/m3	TWA	-	EH40
		-	10 mg/m3	STEL	15min	
14808-60-7	Silica crystalline, respirable	-	0.1 mg/m3	TWA	Carc	EH40

Notes: Carc: Capable of causing cancer and/or heritable genetic damage.
EH40: EH40/2005.

8.2. Exposure controls

Engineering measures: When welding: Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of dust and fumes.

Provide eyewash station and safety shower.

Personal protection: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
When welding: Use special welding equipment for protection of eyes, skin and respiratory system.

Hand protection: Heat insulated protective gloves.

Eye protection: Safety glasses with side-shields or Goggles giving complete protection to eyes.

Hygiene measures: Wash hands after handling. Change contaminated clothing.

Environmental Exposure Controls: Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state: Wire with a flux coating.

Colour: Blue.

Odour: Odourless.

Odour threshold: Not available.

pH: Not available.

Melting point / freezing point: Not available.

Boiling point: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Explosive limits Not available.

Vapour pressure: Not available.

Vapour density: Not available.

Relative density: Not available.

Solubility: Insoluble in water

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature (°C): Not available.

Decomposition temperature (°C): Not available.

Viscosity: Not available.

Explosive properties: Non-explosive

Oxidising properties: Not available.

9.2. Other information

Other data: Not available.

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Not reactive.

10.2. Chemical stability

Stability: Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Hazardous Reactions: None known.

10.4. Conditions to avoid

Conditions to avoid None specific.

10.5. Incompatible materials

Incompatible materials: Water, moisture. Avoid contact with acids.

10.6. Hazardous decomposition products

Hazardous decomposition products: None under normal conditions.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity (Oral): Based on available data, the classification criteria are not met.

Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.

Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

STOT - Single exposure: Based on available data, the classification criteria are not met.

STOT - Repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

Skin contact: Prolonged contact may cause redness and irritation.

Eye contact: Particles/fumes in the eyes may cause discomfort/irritation.

Ingestion: Not likely, due to the form of the product.

Specific effects: Prolonged or repeated exposure to welding fumes may cause damage to the lungs and respiratory system.

11.2. Information on other hazards

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity: There are no data on the ecotoxicity of this product.

12.2. Persistence and degradability

Degradability: The product solely consists of inorganic compounds which are not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

12.7. Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste.

Waste from residues: EWC-code: 12 01 13

Contaminated packaging: Dispose of contaminated packings as residue.

Empty packaging: Empty clean packaging should be collected for reuse.

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SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/AND/RID).

14.1. UN number

UN-No: -

14.2. UN proper shipping name

Proper Shipping Name: -

14.3. Transport hazard class(es)

Class: -

14.4. Packing group

PG: -

14.5. Environmental hazards

Marine pollutant: -

Environmentally Hazardous substance: -

14.6. Special precautions for user

Special precautions: Not relevant.

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

Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

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

National regulation: UK Statutory Instruments, 2021 No. 904, CONSUMER PROTECTION ENVIRONMENTAL PROTECTION HEALTH AND SAFETY. The REACH etc. (Amendment) Regulations 2021.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019 No. 720), as amended.
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
EH40/2005, Workplace exposure limits 2005, with amendments.
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

15.2. Chemical Safety Assessment

CSA status: No chemical safety assessment has been carried out.

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SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 1, 2, 3, 8, 9, 11, 12, 13, 14, 15, 16.

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Abbreviations and acronyms

used in the safety data sheet: CSA= Chemical Safety Assessment.
PBT = Persistent, Bioaccumulative and Toxic.
vPvB = very Persistent and very Bioaccumulative.

Additional information: Classification according to Regulation (EC) No. 1272/2008: Calculation method.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

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