Safety Data Sheet (SDS)

According to Regulation No. 1907/2006/EC (REACH) Article 31

Section 1. Identification of the product and of the company

1.1 Product identifier

Product name: DEGA SG2 / DEGA SG3

Product category: Gas Metal Arc Welding (GMAW) – MIG/MAG solid wire

Normative: AWS 5.18: ER 70S-6, EN ISO 14341-A (2011): G42 4 M21 3Si1 / G46 4 M21 4Si1

Product size: 0.80, 1.00, 1.20, 1.60 (mm)

1.2 Relevant area of usage of the product

Identified uses:
This product is intended for industrial use in welding and soldering applications, specifically for Gas Metal Arc Welding (GMAW) and similar processes.

Uses advised against:
None identified. Always review this safety data sheet before use.

1.3 Details of the company

Company: Dega Demir ve Galvaniz Sanayi A.Ş.

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Tel: +90 212 623 26 00

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Section 2. Identification of hazards

The product has not been classified as hazardous according to the applicable regulation (Regulation (EC) No. 1272/2008 - CLP). It can only pose risks in the following scenarios:

- Exposure to hazardous welding gases and fumes
- Electric shocks
- UV and infrared radiation, heat, and noise generated by the electric arc

Section 3. Composition/information on ingredients (CLP Regulation (EC) No. 1272/2008)

Chemical Name	Concentration (%w/w)	CAS No.	EINECS No.
Iron	80 - 90	7439-89-6	231-096-4
Manganese	1.30 - 1.90	7439-96-5	231-105-1
Silicon	0.70 - 1.20	7440-21-3	231-130-8
Copper	<= 0.35	7440-50-8	231-159-6
Carbon	0.06 - 0.14	7440-44-0	231-153-3
Nickel	<= 0.15	7440-02-0	231-111-4
Sulfur	<= 0.025	7704-34-9	231-722-6
Phosphorus	<= 0.025	7723-14-0	231-768-7
Chromium	<= 0.15	7440-47-3	231-157-5
Vanadium	<= 0.03	7440-62-2	231-171-1
Molibdenum	<= 0.15	7439-98-7	231-107-2
Aluminium	<= 0.02	7429-90-5	231-072-3

**All concentrations are percent by weight*

Section 4. First aid measures

4.1 Description of first aid measures

Inhalation:
Move the affected individual to an area with fresh air immediately. If any signs of discomfort or irritation persist, seek medical advice without delay.

Eye contact:
Rinse eyes thoroughly with water for at least 15 minutes. If irritation or symptoms persist, seek medical attention. For burns caused by arc flash, consult a physician.

Skin contact:
Wash affected area with soap and water. For burns from arc radiation, rinse with cold water and seek medical attention if irritation or burns persist.

Ingestion:
If ingested, seek medical attention immediately and provide the container or label.

Section 5. Fire prevention measures

5.1 Extinguishing media

Use carbon dioxide (CO_2), dry chemical, or alcohol-resistant foam. For large fires, water spray or fog can be applied. Avoid using water jets directly.

5.2 Advice for firefighters

Firefighters should wear self-contained breathing apparatus and suitable protective gear to guard against inhalation of potentially harmful fumes or vapors.

Section 6. Accidental release measures

6.1 Personal precautions

Ensure adequate ventilation to avoid dust formation. Use appropriate protective equipment if necessary.

6.2 Environmental precautions

Prevent material from entering waterways, drains, or the environment. Inform relevant authorities in case of significant spillage.

6.3 Containment and clean-Up

Sweep up or absorb with suitable materials. Dispose of in accordance with local regulations.

Section 7. Handling and storage

7.1 Precautions for safe handling

Use appropriate protective equipment, such as gloves, when handling materials. Ensure good ventilation to avoid dust formation.

7.2 Conditions for safe storage

Store in a tightly closed, dry container. Keep away from incompatible materials like acids and bases.

Section 8. Individual protection and exposure control

8.1 Exposure limits

Ensure compliance with local regulations for permissible exposure limits of welding fumes and gases. Follow proper engineering controls to maintain levels below safety thresholds.

8.2 Exposure controls

Engineering controls: Ensure sufficient ventilation and use fume extractors in the welding area to minimize inhalation risks.

- **Personal protective equipment (PPE):**
    - **Respiratory protection:** In areas with insufficient ventilation, use an appropriate respirator.
    - **Eye/face protection:** Wear safety goggles or face shields to protect against arc radiation and metal splashes.
    - **Hand protection:** Use gloves resistant to heat and wear to avoid skin burns or irritation.
    - **Skin protection:** Cover exposed skin with appropriate protective clothing to shield from welding sparks and heat**.**

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Physical State: Solid
- Appearance: Welding wire or rod
- Odor: Odorless
- Melting Point: ~1600°C
- Boiling Point: Not applicable
- Flash Point: Not applicable
- Explosive Properties: None
- Solubility: Insoluble in water, soluble in strong acids
- Stability: Stable under normal conditions
- Reactivity: Reacts with strong acids and bases

Section 10. Stability and reactivity

10.1 Reactivity
The product is stable and non-reactive under normal conditions of use and storage.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions expected under normal handling.

10.4 Conditions to avoid
Avoid exposure to extreme heat and contact with incompatible materials.

10.5 Incompatible materials
Strong acids, strong bases, and oxidizing agents.

10.6 Hazardous decomposition products
Decomposition during welding may produce harmful fumes, including oxides of carbon, nitrogen, and iron, depending on the base metal and welding conditions.

Section 11. Toxicological information

11.1 Information on toxicological effects

- **Respiratory sensitization:** Inhalation of welding fumes may cause respiratory irritation, nausea, or dizziness. Prolonged exposure can lead to sensitization and chronic respiratory conditions.

- **Chronic exposure:** Overexposure to welding fumes may cause lung damage and affect the nervous system, potentially leading to symptoms such as headaches, fatigue, or muscle weakness.

Section 12. Ecological information

This product should not be disposed of in the environment. Recycle metal scrap where possible. Ensure proper disposal of any waste materials, including powders, in accordance with local regulations.

Section 13. Disposal considerations

13.1 Waste treatment methods

- **General information:**
  Ensure the safe disposal of this material and its container. Whenever possible, recycle the material in accordance with local environmental standards.
- **Disposal methods:**
  Dispose of this product and its packaging in compliance with all applicable local, regional, and national regulations. For ferrous scrap, it can be treated as raw material suitable for recycling or melting.
- **Contaminated packaging:**
  Recycle cardboard and plastic packaging materials according to legal provisions. If packaging is contaminated, it should be disposed of at a licensed waste facility.

Section 14. Transport information

The product is not classified as hazardous for transport under the following regulations:

- ADR/RID: Not classified as dangerous for road or rail transport.
- IMDG: Not classified as dangerous for sea transport.
- IATA: Not classified as dangerous for air transport.

This high-density product complies with all relevant transport provisions and is safe for carriage under standard conditions.

Section 15. Regulatory information

15.1 EU regulations:

- No substances classified as hazardous under the following directives:
  - Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer.
  - Regulation (EC) No. 850/2004 on persistent organic pollutants.

- Regulation (EC) No. 689/2008 on the import/export of dangerous chemicals.
- Regulation (EC) No. 1907/2006 (REACH) Annex XIV – substances subject to authorization.
- Regulation (EC) No. 1907/2006 Annex XVII – restrictions on the manufacture, marketing, and use.
- Directive 2004/37/EC on the protection of workers from risks related to exposure to carcinogens or mutagens.

15.2 National regulations

Classified as non-hazardous to water. Follow all applicable local and national regulations.

15.3 Safety measures

Always read and follow the manufacturer's instructions, local safety practices, and health regulations. Welding fumes and gases may be hazardous; use proper ventilation and protective equipment.

Section 16. Other information

The information provided in this safety data sheet is intended to offer guidance for the safe handling, use, and storage of the product. It is based on the best current knowledge at the time of publication. However, no warranty, expressed or implied, is made as to the accuracy or completeness of this information.

It is the responsibility of the user to ensure compliance with local regulations and practices. Users should refer to appropriate technical guidance and ensure adequate training is provided to personnel handling this product. For any questions or further clarification, please contact the manufacturer.