

**Product Safety Information
in dependence to 453 / 2010 / EC**

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FLIESS ED-ER80S-Ni1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the product	MIG/GMAW wire. DIN EN ISO 14341-A G 50 6 M21 3Ni1
Company identification	Hermann Fliess & Co. GmbH Essenberger Strasse 91 47059 Duisburg - Deutschland Tel: +49 (0) 203 31908-0 Fax: +49 (0) 203 3190890
Trade name	ED-ER80S-Ni1
Type of product	Gas shielding electric arc welding solid wire in rods.
Use	for professional use only.

2. HAZARD IDENTIFICATION

By delivery	not hazardous.
Risk by welding use	
- General	electric shock.
- Inhalation	Inhalation of welding fumes may cause respiratory irritation. Different kinds of fume and dust occur during the welding and grinding process. Overexposure to welding fumes may cause: Fever, Nausea, Giddiness, Eye irritation. Irritation to the respiratory tract and to other mucous membranes. Pulmonary/bronchial disease and/or cause breathing difficulty. Overexposure to Manganese (Mn). May attack the nervous system and/or aggravate pre-existing disorders. The primary entry route for welding fumes and gases is by inhalation. Bronchitis and some lung fibrosis have been reported.
- Skin contact	UV, IR radiations. Heat. May produce skin irritation.
- Eye contact	UV, IR radiations. Heat. May cause eye irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product is not considered to be hazardous and does not contain hazardous components.

Substance name	Value(s)	CAS No./EC No./EC Index	Symbol(s)	R-Phrase(s)
Iron	ca. 96 %	7439-89-6 / 231-096-4 / ----		
Manganese	1,00 – 1,60 %	7439-96-5 / 231-105-1 / ----		
Silicon	0,50 – 0,90 %	7440-21-3 / 231-130-8 / ----		
Nickel	0,80 – 1,50 %	7440-02-0 / 231-111-4 / 028-002-00-7	Xn	40-43

4. FIRST AID MEASURES

First aid	
- Inhalation	Assure fresh air breathing.
- Skin contact	Stop exposure.
- Eye contact	Minimize exposure to light.
- Ingestion	Ingestion unlikely. Rinse mouth.
- Elektric shock	Electrical circuits must be shut off as soon as possible. Prepare to administer resuscitation in case of cardiac or respiratory failure. In case of respiratory arrest, administer artificial respiration.
General information	In all case: Obtain medical attention. If possible, show this sheet.

5. FIRE-FIGHTING MEASURES

Flammable class	The product is not flammable.
Prevention	Welding hot slag or sparks may cause fire. Keep away from combustible material.
Surrounding fires	Use water spray or fog for cooling exposed containers.
Protection against fire	Wear proper protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Equip clean-up crew with proper protection.
After spillage and/or leakage	On land, sweep or shovel into suitable containers.

7. HANDLING AND STORAGE

Storage	Store in dry protected location to prevent any moisture contact. Keep container closed when not in use.
Handling	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection	Bevor any use, it is necessary to attentively read the safety data sheet of the protection gas linked to the wire.
- Respiratory protection	Do not breathe gas/fumes/vapour. In case of insufficient ventilation, wear suitable respiratory equipment.
- Hand protection	Welding gloves.
- Skin protection	Skin protection appropriate to the conditions of use should be provided.
- Eye protection	Use a protection mask equipped with suitable filter glasses. Interdiction to wear contact lenses
- Ingestion:	When using, do not eat, drink or smoke.
Industrial hygiene:	Provide local exhaust or general room ventilation to minimize fumes concentrations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Colour	Copper.
Odour	Odourless.
Melting point [°C]	ca. 1500.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Hazardous decomposition products	Formation of dangerous fumes during use.

According to process conditions, hazardous decomposition products may be generated. Such as:

Chemical	CAS	EC	TLV (mg/m3):	TLV (mg/m3):
Al ₂ O ₃	CAS 001344-28-1	EC 215-691-6	TLV (mg/m3):	10
CO	CAS 000630-08-0	EC 211-128-3	TLV (mg/m3):	29
CO ₂	CAS 000124-38-9	EC 204-696-9	TLV (mg/m3):	-
CaO	CAS 001305-78-8	EC 215-138-9	TLV (mg/m3):	2 (Ca)
Cr	CAS 007440-47-3	EC 231-157-5	TLV (mg/m3):	0.5
Fe	CAS 007439-89-6	EC 231-096-4	TLV (mg/m3):	1 (insoluble)
F	CAS 007789-96-5	EC 232-188-7	TLV (mg/m3):	2.5
MgO	CAS 001309-48-4	EC 215-171-9	TLV (mg/m3):	10
Mn	CAS 007439-96-5	EC 231-105-1	TLV (mg/m3):	0.2
Mo	CAS 007439-98-7	EC 231-107-2	TLV (mg/m3):	10
NO ₂	CAS 010102-44-0	EC 233-272-6	TLV (mg/m3):	-
Ni	CAS 007440-02-0	EC 231-111-4	TLV (mg/m3):	1 (insoluble)
Ni	CAS 007440-02-0	EC 231-111-4	TLV (mg/m3):	0.05 (soluble)
O ₃	CAS 010028-15-6	EC 233-069-2	TLV (mg/m3):	-
PbO	CAS 001317-36-8	EC 215-267-0	TLV (mg/m3):	0.05
Si	CAS 007440-21-3	EC 231-130-8	TLV (mg/m3):	10 (SiO ₂)
SiO ₂	CAS 014808-60-7	EC 238-878-4	TLV (mg/m3):	10
TiO ₂	CAS 013463-67-7	EC 236-675-5	TLV (mg/m3):	10
Cr (III)	CAS 012018-00-7	-----	TLV (mg/m3):	0.5
Cr (VI)	CAS 001308-39-9	-----	TLV (mg/m3):	0.05
K ₂ O	CAS 012136-45-7	-----	TLV (mg/m3):	-
Na ₂ O	CAS 001313-59-3	-----	TLV (mg/m3):	2 (NaOH)
BaO	CAS 001304-28-5	-----	TLV (mg/m3):	0.5 (Ba)

Threshold Limit Values (TLV-TWA) given according to ACGIH. The TLV limit of the above elements is function of the national reglementation.

Hazardous properties	Welding fumes are classified carcinogen by the ICRC (International Center of Research on Cancer) Group: 2 B. Cancer suspected agent.
Materials to avoid	Avoid contact with: Acids. Oxidizing agent.
Other information	In case of work on parts covered by coatings such as: Lubricant, Grease, Paint, Solvent, Metallic compounds, etc. The thermal or photochemical decomposition products of these elements cumulate with the dusts and fumes emitted by the melting of the welding products. The solution to adopt must be, in any case, proceeded by a spot study. Refer to the Document „Health and Safety in Welding“ published by the International Institute of Welding (IIS/IIW).

11. TOXICOLOGICAL INFORMATION

Toxicity information	This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate existing systemic disease.
Acute toxicity	---

12. ECOLOGICAL INFORMATION

Ecological effects information : This product contains no hazardous components for the environment. Avoid release to the environment.

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13. DISPOSAL CONSIDERATIONS

Disposal	Comply with local regulations for disposal.
Industrial waste number	120101 Ferrous metallic scraps. 120113 welding wastes.

14. TRANSPORT INFORMATION

General information : Not regulated.

15. REGULATORY INFORMATION

Symbol(s)	None.
R-Phrase(s)	None.
S-Phrase(s)	None.

16. OTHER INFORMATION

Warning	Fumes and gases emitted during welding may be dangerous. Good ventilation of the workplace required. Electric rays may burn eyes and skin. Electric shocks can kill. Wear proper protective equipment.
Directive 2002/95/CE (ROHS)	Can be used in the fabrication of electric and electronic devices.
Training advice	Ensure that user is aware of the potential hazards and knows what to do in the event of an accident or an emergency.
Recommended uses and restrictions	Contact your supplier in case of doubt.

The present Product Safety Information has been inspired by the European Directives currently in force.

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