



SAFETY DATA SHEET

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Revision nr : 2

Date : 24 / 8 / 2011

Supersedes : 5 / 5 / 2011

OE-SD3**S-00263**

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

Identification of the product : OE-SD3
Use : Solid wire for submerged arc welding.
Company identification : AIR LIQUIDE WELDING FRANCE
13 rue d'Epluches - Saint Ouen l'Aumône
BP 70024
95315 Cergy-Pontoise cedex - France
Tel: + 33 1 34 21 33 33

Emergency phone nr : +33 (0)1.45.42.59.59

2 HAZARDS IDENTIFICATION

Risk by welding use

Heat : Spatter and melting metal can cause burn injuries.
Radiation : UV, IR radiations. Arc ray can severely damage eyes or skin.
Fumes : Formation of dangerous fumes during use. Inhalation of welding fumes may cause respiratory irritation. Cough. Excessive or prolonged inhalation of fumes may cause metal fume fever.
Electricity : Electric shocks can kill.
Magnetic fields : Persons with a pacemaker should not go near welding or cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device.

3 COMPOSITION / INFORMATION ON INGREDIENTS

This product is not considered to be hazardous but contains hazardous components.

Substance name	Value(s)	CAS No	EC No	EC Index	Classification
Iron	: 90 - 100 %	7439-89-6	231-096-4	----	-----
Manganese	: 1 - 3 %	7439-96-5	231-105-1	----	-----
Silicon	: 0.1 - 1 %	7440-21-3	231-130-8	----	-----
Copper	: 0.1 - 1 %	7440-50-8	231-159-6	----	-----
Chromium	: 0.1 - 1 %	7440-47-3	231-157-5	----	-----
Molybdenum	: 0.1 - 1 %	7439-98-7	231-107-2	----	-----
Nickel (powder excluded)	: 0.1 - 1 %	7440-02-0	231-111-4	028-002-00-7	----- Carc. Cat. 3; R40 T; R48/23 R43

4 FIRST AID MEASURES

- Inhalation : Assure fresh air breathing. Obtain medical attention if breathing difficulty persists.
- Skin contact : Take off immediately all contaminated clothing. Flush with plenty of water. Seek medical advice.
- Eye contact : Rinse immediately with plenty of water. Seek medical attention immediately.
- Ingestion : Rinse mouth. Obtain emergency medical attention.

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5 FIRE-FIGHTING MEASURES

- Flammable class : The product is not flammable.
Prevention : Welding hot slag or sparks may cause fire.
Extinguishing media : Powder.
Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.

6 ACCIDENTAL RELEASE MEASURES

- Personal precautions : Equip clean-up crew with proper protection.
After spillage and/or leakage : Not applicable.

7 HANDLING AND STORAGE

- Storage : Store in dry protected location to prevent any moisture contact. Keep container closed when not in use.
Handling : Provide local exhaust or general room ventilation to minimize fumes concentrations. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection

- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe gas/fumes/vapour.
- 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.

Occupational Exposure Limits

Substance	CAS	Limit Value (8 hrs)	Limit Value (15 mn)
Manganese fume or respirable dust (Fr)	7439-96-5	1 mg/m ³	-
Manga. and inorga. compounds (as Mn) (UK)	7439-96-5	0.5 mg/m ³	-

9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : Solid.
Colour : Copper.
Odour : Odourless.
pH value : Not applicable.
Vapour pressure [bar] : Not applicable.
Solubility in water : Insoluble.
Flash point [°C] : Not applicable.
Explosion limits - lower [%] : Not applicable.
Explosion limits - upper [%] : Not applicable.

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10 STABILITY AND REACTIVITY

Stability	: Stable under normal conditions. (< 300°C)
Materials to avoid	: Contact with chemical substances like acids ou bases could cause generation of gas.
Hazardous decomposition products	: Formation of dangerous fumes during use. Welding fumes are classified carcinogen by the IARC (International Agency for Research on Cancer) : Group 2B Cancer suspected agent. Reasonably expected gaseous products would include carbon oxides, nitrogen oxides and ozone.
Fume Data Sheet	: According to process conditions, hazardous decomposition products may be generated. These hazardous products could include those from the reaction or oxidation of the components listed in section 3 or included in base material.
Fumes Emission Rate	: The amount of fumes generated change with the welding parameters and the diameters of the consummable. Refer to applicable national exposure limits for fume compounds and national exposure limits for fumes.
Other information	: In case of work on parts covered by coatings such as : Lubricant, Solvent, Paint, Metallic compounds, Grease, etc... The thermal or photochemical decomposition products of these elements cumulate with the dusts and fumes emitted by the melting of the welding product. The solution to adopt must be, in any case, preceeded 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	: Irritation to the respiratory tract and to other mucous membranes. Overexposure to brasing fumes may cause : Nausea. Fever. Giddiness. Eye irritation.
Chronic toxicity	: Overexposure to welding fumes may cause : Pulmonary/bronchial disease and/or cause breathing difficulty.

12 ECOLOGICAL INFORMATION

Ecological effects information	: Avoid release to the environment.
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13 DISPOSAL CONSIDERATIONS

Disposal	: Dispose in a safe manner in accordance with local/national regulations.
Industrial waste number	: 12 01 13 Welding wastes (Q8) 16 01 18 Ferrous metal (Q1). 16 01 18 Non-ferrous metal (Q1).

14 TRANSPORT INFORMATION

- ADR/RID	: Not regulated.
- IMO-IMDG	: Not regulated.
- IATA	: Not regulated.

15 REGULATORY INFORMATION

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

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15 REGULATORY INFORMATION (continued)

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Hazard Class and Category Code

Not classified.

16 OTHER INFORMATION

- Warning : Fumes and gases emitted during welding may be dangerous. Good ventilation of the workplace required.
- Directive 2002/95/CE (ROHS) : Can be used in the fabrication of electric and electronic devices
- Text of R-Phrases in § 3 : R40 : Limited evidence of a carcinogenic effect.
R43 : May cause sensitization by skin contact.
R48/23 : Toxic : danger of serious damage to health by prolonged exposure through inhalation.
- 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.
- Further information : Revision - See : *
- The contents and the format of this safety data sheet comply with Regulation (EC) No 1907/2006 of the European Parliament.

DISCLAIMER OF LIABILITY : The information in this sheet is based on the knowledge available when it was published. The user must ensure that the information is applicable and exhaustive for the application. The information contained in this sheet is only applicable for this product. The product must not be used for any application that is not allowed, in this case we will not be responsible for any damage caused. The user must respect current Safety, Health and Environmental legislation. This information concerns Safety and is not a substitute to the technical data of the product. This sheet cancels and replaces the previous ones.

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