

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

1.1. Product identifier

Trade name : OVERCORD E
Product code : E-00497

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

1.2.1. Relevant identified uses

Main use category : Electric arc welding coated electrode.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

AIR LIQUIDE WELDING FRANCE
25, boulevard de la paix - CS30003 Cergy Saint Christophe
95895 Cergy-Pontoise cedex - France
T +33 1 34 21 33 33
ALW.SDS@airliquide.com

1.4. Emergency telephone number

Emergency number : INRS +33 (0)1.45.42.59.59

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Extra phrases : Not classified. The product contains less than 1% of respirable crystalline silica.

2.3. Other hazards

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.
Gases : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NOx).
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.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Iron	(CAS No) 7439-89-6 (EC no) 231-096-4	50 - 75	Not classified
Manganese	(CAS No) 7439-96-5 (EC no) 231-105-1	1 - 3	Not classified
Quartz (SiO ₂)	(CAS No) 14808-60-7 (EC no) 238-878-4	0,1 - 1	Xn; R48/20
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Iron	(CAS No) 7439-89-6 (EC no) 231-096-4	50 - 75	Not classified

OVERCORD E

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Manganese	(CAS No) 7439-96-5 (EC no) 231-105-1	1 - 3	Not classified
Quartz (SiO ₂)	(CAS No) 14808-60-7 (EC no) 238-878-4	0,1 - 1	STOT RE 1, H372

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing becomes difficult (due to inhalation of fume), take the patient to fresh air and get them to breathe deeply. Seek medical attention if symptoms persist.
- First-aid measures after skin contact : In case of burn with hot metal, flush with plenty of water. Take off immediately all contaminated clothing. Seek medical attention if burns develop.
- First-aid measures after eye contact : In case of burn with hot metal, flush with plenty of water. Seek medical attention immediately.
- First-aid measures after ingestion : Ingestion unlikely. Obtain emergency medical attention.

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

No additional information available

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

Not applicable.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Dry powder.
- Unsuitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.

5.3. Advice for firefighters

- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Not specifically applicable.

6.3. Methods and material for containment and cleaning up

- Other information : Contain and collect as any solid.

6.4. Reference to other sections

See Heading 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Local exhaust and general ventilation must be adequate to meet exposure standards.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry protected location to prevent any moisture contact.

7.3. Specific end use(s)

Not applicable.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Quartz (SiO ₂) (14808-60-7)		
Austria	MAK (mg/m ³)	0,1 mg/m ³
Belgium	Limit value (mg/m ³)	0,1 mg/m ³

OVERCORD E

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Quartz (SiO ₂) (14808-60-7)		
France	VME (mg/m ³)	0,1 mg/m ³
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	10
USA OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³ /(%SiO ₂ +2) Respirable dust
USA OSHA	Remark (OSHA)	(3) See Table Z-3.
Spain	VLA-ED (mg/m ³)	0,05 mg/m ³ Fracción respirable
Spain	Notes	(2015), n (En las industrias extractivas véase la Orden ITC 2585/2007, de 30 de agosto (BOE nº 315 de 7 de septiembre de 2007), por la que se aprueba la Instrucción Técnica Complementaria 2.0.02 del Reglamento General de Normas Básicas de Seguridad Minera.), d (Véase UNE EN 481: Atmosferas en los puestos de trabajo. Definición de las fracciones por el tamaño de las partículas para la medición de aerosoles.), y (Reclasificado, por la International Agency for Research on Cancer (IARC) de grupo 2A (probablemente carcinogénico en humanos) a grupo 1 (carcinogénico en humanos).), véase ITC/2582/2007
Netherlands	Grenswaarde TGG 8H (mg/m ³)	0,075 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	0,1 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	0,1 mg/m ³
Portugal	OEL TWA (mg/m ³)	0,025 mg/m ³
Manganese (7439-96-5)		
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0,5 mg/m ³
Germany	Remark (TRGS 900)	DFG, Y, 10
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	0,02 mg/m ³
Italy - Portugal - USA ACGIH	Remark (ACGIH)	CNS impair; A4
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	5 mg/m ³
Spain	VLA-ED (mg/m ³)	0,2 mg/m ³ elemental 0,2 mg/m ³ Compuestos inorgánicos de Manganese, como Mn
Czech Republic	Expoziční limity (PEL) (mg/m ³)	1 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	2 mg/m ³
Poland	NDS (mg/m ³)	0,3 mg/m ³
Romania	OEL TWA (mg/m ³)	0,5 mg/m ³
Romania	OEL STEL (mg/m ³)	3 mg/m ³
Portugal	OEL TWA (mg/m ³)	0,2 mg/m ³

8.2. Exposure controls

Hand protection	: Welding gloves.
Eye protection	: Use a protection mask equipped with suitable filter glasses.
Skin and body protection	: Skin protection appropriate to the conditions of use should be provided.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Grey.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Ca 1500 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available

OVERCORD E

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 6 - 8
Solubility	: Insoluble.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not applicable.

10.4. Conditions to avoid

None under normal conditions.

10.5. Incompatible materials

Contact with chemical substances like acids or bases could cause generation of gas.

10.6. Hazardous decomposition products

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.
Fume Data Sheet	: These hazardous products could include those from the reaction or oxidation of the components listed in section 3 or included in base material. Reasonably expected gaseous products would include carbon oxides, nitrogen oxides and ozone.
Fumes Emission Rate	: The amount of fumes generated change with the welding parameters and the diameters of the consumable. 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, preceded by a spot study. Refer to the document "Health and Safety in Welding "published by the International Institute of Welding (IIS/IIW)".

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified.
Aspiration hazard	: Not classified

OVERCORD E

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.
Additional information : 12 01 13 Welding wastes (Q8). 16 01 17 Ferrous metal (Q1). 16 01 18 Non-ferrous metal (Q1).

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

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

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Other information, restriction and prohibition regulations : Directive RoHS 2011/65 - Can be used in the fabrication of electric and electronic devices.

15.1.2. National regulations

Water hazard class (WGK) : 1 - low hazard to waters

OVERCORD E

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H372	Causes damage to organs through prolonged or repeated exposure

SDS EU (REACH Annex II) - ALW - FUMES

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product