

Safety data sheet

ISO 11014-1 / 91/155/EEC



Print: 13-10-09

Doc.No. sds-4621 rev.05

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Product name(s): Outershield 12-H
Outershield 19-H
Outershield 20-H

1. PRODUCT AND COMPANY DESIGNATION

Product Type FCAW welding wire
Supplier Lincoln Smitweld B.V.
Address P.O. Box 253
NL-6500 AG Nijmegen
The Netherlands
Telephone +31.243.522.911
Telefax +31.243.522.456

2. DETAILS OF COMPOSITION

Type: Preparation or substance

Dangerous ingredients (if applicable):

Name	Concentration	CAS-no.
Nickel (metal)	< 2	7440-02-0
Chromium and chromium alloys or compounds (as Cr)	< 3	7440-47-3
Manganese and/or manganese alloys or compounds (as Mn)	< 2	7439-96-5
Molybdenum alloys (as Mo)	< 2	7439-98-7

3. POTENTIAL RISKS

Classification

During welding fumes will be formed. The content is depending on the wire type and the base material. Primarily iron oxide; secondarily complex oxides of manganese, nickel, chromium and molybdenum may be formed. Also ozone and nitrogen dioxide can be formed by arc radiation.

4. FIRST AID MEASURES

If inhaled Not applicable (During welding fume can be inhaled: bring patient in fresh air; breath in fresh air deeply. Contact physician if necessary).

If skin contact occurs Not applicable.

If it comes into contact with eyes Not applicable.

If swallowed Not applicable (During welding: see if inhaled).

Remarks

5. FIRE PREVENTION MEASURES

Suitable extinguishing media All known extinguishing substances may be used.

Remarks

6. MEASURE IN CASE OF UNINTENTIONAL RELEASE

Personal protective measures None.

Environmental protection measures No special measures are required.

Cleaning methods Dispose material according to point 13.

7. HANDLING AND STORAGE (for safety)

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Handling	No special measures are necessary.
Storage	
Special requirements	No special measures are necessary.
Incompatible products	Not applicable.
Packaging material	No special requirements.

8. EXPLOSION PREVENTION/PERSONEL PROTECTION

Measures to limit explosions No further measures.

Remark

During welding fumes will be formed. The content is depending on the wire type and the base material. Primarily iron oxide; secondarily complex oxides of manganese, nickel, chromium and molybdenum may be formed. Also ozone and nitrogen dioxide can be formed by arc radiation.

Possible reaction products:

<u>CAS-no</u>	<u>Description</u>	<u>MAC-value (NL) [mg/m³] TGG 8</u>
7439-96-5	Welding fume	3,5
1313-99-1	Manganese oxide	1
13765-19-0	Nickel oxide	0,1
10028-15-6	Cr ^{VI} compounds	0,025
10102-44-0	Ozone	0,12 (TGG 15 min.)
	Nitrogen dioxide	4

Personal protection	
Breathing protection	None (see item 16). Ensure adequate ventilation. Possibly use breathing masks see UVV (VGB 15) paragraph 27.
Protection of hands	Use suitable hand protection.
Eye protection	Use protective glasses.
Protection of skin and body	Use well fitting working clothes and during welding a welding helmet.

Hygiene regulations	In case of dust or smoke: keep foodstuffs sealed. Avoid direct skin contact. Store and wash working clothes separately. Clean face and hands thoroughly before eating/drinking.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Further information

Physical state

Form Wire.
Colour
Odour None.

Other information

pH value Not applicable.
Melting point 1000 - 1500°C.
Ignition point Not applicable.
Explosion limits Non-explosive.
Density -
Solubility in water Insoluble.

10. STABILITY AND REACTIVITY

Avoid contact with Strong acid and base solutions.
Dangerous residual products Not known for unused product; see also item 8.

11. DATA REGARDING TOXICITY

Acute	Component	Method	Value
-	-	-	-
Sensitisation		Not known.	
Chronical		Not known.	

See also item 3.

12. ECOLOGICAL DATA

No harmful effects of this product on the environment are known.

13. DISPOSAL DATA

Product Contact government for regulations.
Packaging Contact government for regulations.

14. TRANSPORT INFORMATION

ADR/RID No dangerous substance.
ADN/ADNR No dangerous substance.
IMDG No dangerous product.
ICAO/IATA-DGR No dangerous substance.

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15. REGULATIONS

Protect yourself and others. Take precautions when welding. Follow your employers' safety practice, which should be based on manufacturers hazard data available to your employer. Fumes and gases can be dangerous to your health. Arc rays can injure eyes and burn skin. Electric shock can kill. Read and understand the manufacturers instructions and your employer's safety practices. Keep your head out of the fumes. Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone, and the general area. Wear correct eye, ear and body protection. Do not touch live electrical parts. U.K.: see WMA No.236 and 237 and HSE Guidance Note EH 40. U.S.A.: See American Standard Z 49.1 "Safety in Welding and Cutting", published by the American Welding Society, 550 Le Jeune Rd, Miami, Florida 33126-5699; OSHA Safety and Health Standards, 29 CFR 1910, available from U.S. Government printing office, Washington D.C. 20402-0001.

16. OTHER INFORMATION

All national/local prescriptions remain applicable. The data given in this sheet relate to the unused product, unless specified otherwise. During usage dangerous products can be formed (welding fume, radiation, etc.).

Above-mentioned values are no guarantee for product properties. They are based on current knowledge.

Change(s) in respect to the previous revision are indicated in **red**.

This Safety Data Sheet is prepared for data base purposes and is valid without signature.