

Safety Data Sheet

according to Regulation (EC) No 1907/2006

DelFer 410L

Revision: 23.03.2026

Product code: DWS-052

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

DelFer 410L

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

Welding powder. For industrial purposes only.

Uses advised against

The product is only to be used for the intended application.

1.3. Details of the supplier of the safety data sheet

Company name:	Deloro Wear Solutions GmbH
Street:	Zur Bergpflege 51 - 53
Place:	D-56070 Koblenz
Telephone:	+49 (261) 80880
E-mail:	wearsolutions@deloro.com
E-mail (Contact person):	materials@deloro.com
Internet:	http://www.deloro.com

1.4. Emergency telephone number:

Emergency number: 112

Further Information

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements**Regulation (EC) No 1272/2008****Hazard statements**

EUH208	Contains nickel powder. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

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Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7440-47-3	Chromium			12 - < 15 %
	231-157-5			
7439-96-5	manganese			1 - < 1.3 %
	231-105-1			
7440-02-0	nickel powder			0,3 - 0,6 %
	231-111-4	028-002-01-4		
	Carc. 2, Skin Sens. 1, STOT RE 1, Aquatic Chronic 3; H351 H317 H372 H412			

Full text of H and EUH statements: see section 16.

Further Information

Chromium: Substance with a community workplace exposure limit

manganese: Substance with a community workplace exposure limit

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In case of persistent symptoms, consult a doctor/physician. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid dust generation. First aider: Pay attention to self-protection!

After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Where appropriate artificial ventilation. Seek medical help.

After contact with skin

Rinse skin with water. Change contaminated clothing. Consult a doctor if symptoms persist.
The melted product can cause severe burns. After skin contact with melted product: 1. quickly cool with water (not ice), 2. do not pull off melted product from skin, 3. burns caused by the melted product must be treated medically.

After contact with eyes

In case of contact with eyes, rinse immediately (and under protection of the uninjured eye) with plenty of flowing water for 10 minutes, holding eyelids wide apart. Remove contact lenses. Consult an ophthalmologist.
The melted product can cause severe burns. Rinse immediately carefully and thoroughly with eye-bath or water. Call a physician immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Seek medical advice. Do NOT induce vomiting. Call a physician immediately.

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

May produce an allergic reaction.

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

Treat symptomatically.

Respiratory or skin sensitisation.

SECTION 5: Firefighting measures

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5.1. Extinguishing media**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

High power water jet.

Chromium: Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

The product is non-flammable. Thermal decomposition can lead to the escape of irritating gases and vapours.

In case of fire may be liberated: Carbon oxides

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Wear personal protection equipment. Do not inhale explosion and combustion gases.

Additional information

Contaminated fire-fighting water must be collected separately. Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Avoid dust generation. Provide adequate ventilation. Avoid contact with skin and eyes. Wear personal protection equipment. Use appropriate respiratory protection.

For non-emergency personnel

Keep away from unprotected people. Keep upwind.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up**For containment**

Avoid generation of dust.

For cleaning up

Moisten with water. Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Personal protection equipment: see section 8

Handling and storage: see section 7

For waste disposal see section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

When using do not eat, drink or smoke. Use personal protection equipment. Avoid contact with eyes and skin. Take off contaminated clothing and wash it before reuse. Do not breathe dust.

Advice on protection against fire and explosion

Contaminated fire-fighting water must be collected separately.

Advice on general occupational hygiene

Wash hands before breaks and after work. Do not eat, drink, smoke or sneeze at the workplace. Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed.

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Hints on joint storage

Store separately from foodstuff.

7.3. Specific end use(s)

Welding powder. For industrial purposes only.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limit values**

CAS No	Name of agent	ppm	mg/m ³	fib/cm ³	Category	Origin
-	Chromium Metal, Inorganic Chromium (II) Compounds and Inorganic Chromium (III) Compounds (insoluble)	-	2		TWA (8 h)	
-	Manganese and inorganic manganese compounds (as manganese) (inhalable fraction)	-	0.2		TWA (8 h)	
-	Manganese and inorganic manganese compounds (as manganese) (respirable fraction)	-	0.05		TWA (8 h)	

8.2. Exposure controls**Appropriate engineering controls**

Ensure adequate ventilation. In case of application in interior spaces proper ventilation/exhaustion must be provided.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tightly fitting safety glasses with side shields.

Hand protection

Tested protective gloves are to be worn: For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The glove material has to be impermeable and resistant to the product / the substance / the mixture. When selecting the glove material, observe breakthrough times, permeation rates and degradation.

Suitable material: NBR (Nitrile rubber). NR (Natural rubber (Caoutchouc), Natural latex).

Coating thickness: 0,5 mm

penetration time (maximum wearing period): 480 min

Skin protection

Full cover clothing covering arms and legs.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use suitable breathing apparatus.

Full-/half-/quarter-face masks (EN 136/140), P1-3, FFP1-3

Environmental exposure controls

Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	solid (Powder)	
Colour:	metallic	
Odour:	odourless	
Melting point/freezing point:		no data available
Boiling point or initial boiling point and boiling range:		no data available
Flammability:		no data available
Lower explosion limits:		no data available
Upper explosion limits:		no data available
Flash point:		no data available
Auto-ignition temperature:		no data available
Decomposition temperature:		no data available
pH-Value:		no data available
Viscosity / kinematic:		no data available
Water solubility:		insoluble
Dissolution rate:		no data available
Partition coefficient n-octanol/water:		no data available
Dispersion stability:		no data available
Vapour pressure:		no data available
Density:		no data available
Relative density:		no data available
Bulk density:		4000 - 5000 kg/m ³
Relative vapour density:		no data available
Particle characteristics:		no data available

9.2. Other information**Information with regard to physical hazard classes**Explosive properties
not explosive.

Self-ignition temperature

Solid:

no data available

Gas:

no data available

Oxidizing properties

Not oxidising.

Other safety characteristics

Sublimation point:

no data available

Softening point:

no data available

Pour point:

no data available

Viscosity / dynamic:

no data available

Further Information

no data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No dangerous reactivity under regular conditions.

10.2. Chemical stability

The product is stable when stored and handled appropriately.

10.3. Possibility of hazardous reactions

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No dangerous reactions to be expected if used properly.

10.4. Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Oxidizing agents, strong. Acids.

10.6. Hazardous decomposition products

When used properly no hazardous products of decomposition are expected. Thermal decomposition can lead to the escape of irritating gases and vapours.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Contains nickel powder. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information**12.1. Toxicity**

Based on available data, the classification criteria are not met.

12.2. Persistence and degradability

No further data available.

12.3. Bioaccumulative potential

No further data available.

12.4. Mobility in soil

No further data available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Dispose of waste according to applicable legislation.

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information**Land transport (ADR/RID)**

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No special precautions known.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 27, Entry 65, Entry 75

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Information according to Directive
2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

Additional information

Regulation (EC) No. 2024/590 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No. 648/2004 [Detergents regulation]: not applicable

Regulation (EC) No 2019/1021 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D):

1 - slightly hazardous to water

Additional information

Observe in addition any national regulations!

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

Version 1,00 - 23.03.2026 - first creation

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Abbreviations and acronyms

Skin Sens. 1: Skin sensitisation, hazard category 1
 Carc. 2: Carcinogenicity, hazard category 2
 STOT RE 1: Specific target organ toxicity - repeated exposure, hazard category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 BImSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act
 CAS: Chemical Abstracts Service
 DIN: Norm of the Deutsche Institut für Normung (German Institute for Standardization)
 EC: Effective Concentration
 EG: European Community (Europäische Gemeinschaft)
 EN: European Norm
 IATA: International Air Transport Association
 IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk
 ICAO: International Civil Aviation Organization
 IMDG: International Maritime Code for Dangerous Goods
 ISO: Norm of the International Standards Organization
 CLP: Classification, Labeling, Packaging
 IUCLID: International Uniform Chemical Information Database
 LC: Lethal concentration
 LD: Lethal dose
 log Kow: Octanol/water partition coefficient
 MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships
 OECD: Organisation for Economic Co-operation and Development
 PBT: Persistent, bio-cumulative, toxic
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
 TRGS: Technische Regeln für Gefahrstoffe
 UN: United Nations
 VOC: Volatile Organic Compounds
 vPvB: very persistent and very bio-cumulative
 VwVwS: Administrative Regulation for Water Pollutants
 WGK: German Water Hazard Class
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 DNEL: Derived No Effect Level
 PNEC: Predicted No Effect Concentration
 TLV: Threshold Limiting Value
 STOT: Specific Target Organ Toxicity
 AwSV: Ordinance on Installations for Handling Substances Hazardous to Water

Relevant H and EUH statements (number and full text)

H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains nickel powder. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

asseso AG, Ottostraße 1, 63741, Aschaffenburg, Germany

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Phone: +49 (0)6021 - 1 50 86-0, Fax: +49 (0)6021 - 1 50 86-77, E-Mail: eu-sds@asseso.eu, www.asseso.eu

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)