



<p>Elektrowerk Weisweiler GmbH</p> 	LC FeCr N-containing - molten		
	SAFETY DATA SHEET	Product	LC FeCr 3-4 % N
		SDS #	1
		First issue date	2011-01-17
		Revision #	
		Revision date	

In accordance with Annex II to Regulation (EC) 1907/2006, as amended by Regulation 453/2010

SECTION 1. IDENTIFICATION OF SUBSTANCE AND COMPANY

1.1 Product Identifier	Ferrochrome N-containing (FeCr N) molten, Ferrochromium N-containing molten, According to the REACH-regulations, FeCr is handled as a preparation out of Iron and Chromium.
	Iron: CAS-Nr.: 7439-89-6 – EINECS: 231-096-4 EW-REACH-Registration-No. for Iron: 01-2119462838-24-0066
	Chromium: CAS-Nr.: 7440-47-3 – EINECS: 231-157-5 EW-REACH-Registration-No. for Chromium: 01-2119485652-31-0016
1.2 Relevant identified uses of the substance and uses advised against	This product is used as raw material for the manufacture of various grades of stainless steel, high chromium casting, specialty steel and welding. No uses advised against.
1.3 Details of supplier of the safety data sheet	
1.3.1 Name of supplier or manufacturer	Elektrowerk Weisweiler GmbH, Dürener Str. 487, D-52249 Eschweiler, Germany, Tel.: +49 2403 / 646 - 0
1.3.2 Person responsible in EU member state	Elektrowerk Weisweiler GmbH, Dürener Str. 487, D-52249 Eschweiler, Germany, Tel.: +49 2403 / 646 - 0
1.3.3 Only representative	Elektrowerk Weisweiler GmbH, Dürener Str. 487, D-52249 Eschweiler, Germany, Tel.: +49 2403 / 646 - 0
1.4 Emergency telephone number	Elektrowerk Weisweiler GmbH, Dürener Str. 487, D-52249 Eschweiler, Germany, Tel.: +49 2403 / 646 – 0 Monday to Friday between 08.00 and 16.00 please contact the Quality Department : Tel.: +49 2403 / 646-349
SECTION2: HAZARDS IDENTIFICATION	
2.1 Classification of the substance	This product does not meet the classification requirements of the current European legislation on classification and labeling that are applicable for substances.
2.2. Label elements	This product is not hazardous. Labeling is not required.
2.3 Other Hazards	Though not considered to be hazardous, material should be handled with acceptable safe methods of industrial hygiene. See section 8 for personal protection.
During handling	If a significant amount of dust is present, precautions should be taken to limit this exposure through normal control procedures such as local exhaust ventilation(LEV) or respiratory protective equipment(RPE)
During use	Fumes may be produced during the melting operations. Chromium may be present in these fumes in oxidized forms, some of which maybe hazardous. See guidance on safe use.

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SECTION3: COMPOSITION INFORMATION ON INGREDIENTS

3.1 Substances

Component	CAS Nr	EINECS/ELINCS	Amount (%)	Symbol	R-Phrases
Chromium (metallic)	7440-47-3	231-157-5	60-70%	Cr	None
Iron (metallic)	7439-89-6	231-096-4	Balance	Fe	None
Nitrogen	7727-37-9	231-783-9	3-4%	N	None
Silicon	7440-21-3	231-130-8	0.1-1.5%	Si	None
Nickel	7440-02-0	231-111-4	0.1-0.4%	Ni	None at this concentration range

Other Components:

Remaining components of this product are proprietary, non-hazardous and/or are present at concentrations below reportable limits.

Additional Information:

Amounts indicated are typical and do not represent a specification.


SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures


Inhalation	Move the person to fresh air - if respiratory problem persists, seek medical attention
Skin contact	Wash with water and soap
Eye contact	Wash with water to remove dust. Seek medical attention if discomfort persists
Ingestion	No known effects
4.2 Most important symptoms and effects, both acute and delayed	This product is considered as non-hazardous
4.3 Indication of any immediate medical attention and special treatment needed	No relevant information has been identified

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media	Ferrochrome is not combustible
5.2 Special hazards arising from the substance or mixture	Ferrochrome is not combustible

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5.3 Advice for fire-fighters	Ferrochrome is not combustible		
SECTION 6: ACCIDENTAL RELEASE MEASURES			
6.1 Personal precautions, protective equipment and emergency procedures	Eye protection and respirators should be worn where dust is a potential hazard. Gloves should be worn when handling this material because of the risk of contact with sharp particles		
6.2 Environmental precautions	There are no special procedures for this material		
6.3 Methods and material for containment and cleaning up	Collect spillage in a closed container. Follow good housekeeping. Avoid excessive dust generation Material may be reclaimed for re-use.		
SECTION 7: HANDLING AND STORAGE			
7.1 Precautions for safe handling	The product is a heavy and dense material. Protective equipment should be worn when handling the material. Gloves should be worn as sharp particles may pierce the skin. Safety goggles and respirators should be worn where dust occurs		
7.2 Conditions for safe storage, including any incompatibilities	The product is stable in storage and should be kept dry. If not protected from weathering, a slight tarnishing may occur to the surface of the material, which is non-toxic and does not in any way detract from the properties and quality of the material.		
7.3 Specific end use(s)	See section 1.2 above		
SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION			
8.1 Control parameters			
8.1.1 National limit values			
8.1.2 National occupational exposure limit values	EU OEL 2mg Cr / m ³		
8.1.3 DNEL and PNEC	Substance	DNEL	PNEC
	Chromium	0.5 mg Cr / m ³	4.7 µg / l (Cr3)
	Iron		
8.2 Exposure controls			
8.2.1 Appropriate engineering controls	Local exhaust ventilation (LEV)		
8.2.2 Individual protection measures, such as personal protective equipment			
Eye/face protection	Goggles / face shield if dust is a hazard		
Skin	Long sleeves overalls; gloves for hands, where applicable		
Respiratory	If exposure is above the Occupational Health limits, respirators as approved by national authorities should be used.		
Thermal hazards	Not identified		
8.2.3 Environmental exposure	Do not wash spilled materials into drainage system, material may		

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controls	block drains.
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties


Appearance	Metallic silver grey lumps, chips or fine material
Odour	No odour
Odour threshold	Not applicable as there is no odour
pH	Not relevant
Melting point	1425 - 1515 C
Boiling point	2700C – 3000C
Flash point	Not relevant
Evaporation rate	Not relevant
Flammability	Not flammable
Upper/lower flammability or explosive limits	Not relevant
Vapour pressure	Not relevant
Vapour density	Not relevant
Relative density	7,2 t/m ³
Solubility	Insoluble in water
Partition coefficient: n-octanol/water	Not relevant
Auto-ignition temperature	Not relevant
Decomposition temperature	Not relevant
Viscosity;	Not relevant
Explosive properties;	No explosive properties
Oxidising properties	Not oxidizing properties
9.2 Other information	
Bulk density	2.8 –3.5 t/m ³

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	The product does not contain reactive functionalities
10.2 Chemical stability	The product is chemically stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
10.3 Possible hazardous reactions	Can react with some acids with the evolution of hydrogen Can react with molten alkalis with the formation of compounds

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	<p>containing chromium (VI)</p> <p>It is known that high temperature processes including production and welding of chromium and chromium-containing alloys can lead to generation of fumes containing chromium(VI). Although the precise identity of the chromium(VI) substances present has not been identified it is important to recognize that several substances containing chromium(VI) have been classified as carcinogenic, mutagenic, toxic for reproduction and dangerous for the environment. It is therefore essential that workplace and releases to the environment associated with these activities are monitored to ensure compliance with national and/or Community legislative limits. The European Confederation of Iron and Steel Industries (Eurofer), the European Association of Metals (Eurometaux) and the European Welding Association (EWA) jointly developed Safe Use Recommendations for welding metals and alloys, compiled in a document that is available for REACH purposes (www.eurofer.be).</p>
10.4 Conditions to avoid	Once molten, charge chrome produces fumes. Dust suspended in air could cause dust explosions
10.5 Incompatible materials	Can react with some acids with the evolution of hydrogen Can react with molten alkalis with the formation of compounds containing chromium (VI) - see 10.3 above
10.6 Hazardous decomposition products	See section 10.3 and 10.5
SECTION 11: TOXICOLOGICAL INFORMATION	
11.1 Information on toxicological effects	
(a) acute toxicity;	No acute toxicity
(b) skin corrosion/irritation;	Not corrosive or irritant
(c) serious eye damage/irritation;	Typical of a nuisance dust
(d) respiratory or skin sensitization;	Not sensitizing
(e) germ cell mutagenicity;	Not mutagenic
(f) carcinogenicity;	Not carcinogenic
(g) reproductive toxicity;	Not toxic for reproduction
(h) STOT-single exposure;	No STOT single exposure
(i) STOT-repeated exposure;	No STOT repeated exposure
(j) aspiration hazard.	No aspiration hazard
SECTION 12: ECOLOGICAL INFORMATION	
12.1 Toxicity	Not ecotoxic
12.2 Persistence and degradability	Not relevant
12.3 Bioaccumulative potential	None
12.4 Mobility in soil	Insignificant solubility in water, immobile
12.5 Results of PBT and vPvB	Not relevant

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assessment	
12.6 Other adverse effects	None identified

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	Material is non hazardous. Disposal of waste should be undertaken by a licensed waste contractor in accordance with appropriate national and local regulations
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SECTION 14: TRANSPORTATION INFORMATION

14.1. UN number	The material is not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO)
14.2. UN proper shipping name	The material is not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO)
14.3. Transport hazard class(es)	The material is not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO)
14.4. Packing group	The material is not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO)
14.5. Environmental hazards	The material is not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO)
14.6. Special precautions for user	The material is not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO)
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	The material is not classified as hazardous for transport (ADR, RID, UN, IMO, IATA/ICAO)

SECTION 15: REGULATORY INFORMATION


15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture	No labeling is required No risk or safety phrases are required. Refer to European Directives 67/548/EEC, 99/45/EC, 91/155 EEC and 93/112/EC Risk and Safety phrases: intermediate Carbon Ferrochrome contains chrome in the metallic (zero valent) state.
15.2 Chemical Safety Assessment	No chemical safety assessment has been carried out because the substance is not classified as hazardous

SECTION 16: OTHER INFORMATION

Reference to ICDA Chromium Industry Guidelines: available through following ICDA web link (<http://www.icdachromium.com/pdf/publications/ICDAGuidelines.pdf>)

Additional advice on specific questions can be obtained from Elektrowerk Weisweiler GmbH – Germany.

Precautionary notes:
During melting, pickling and welding stages (strongly oxidizing conditions), water soluble hexavalent chromium and oxides of metals may be present in the effluent fumes. Suitable precautions should be taken to minimize exposure of personnel to such fumes. See section 10.3 above.

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Any moisture in the material should be regarded as an explosion hazard if it is to be used in high temperature environment.

Disclaimer

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.

Elektrowerk Weisweiler GmbH makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

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