

OPEN VERSION

**EXECUTIVE SUMMARY OF THE  
Anti-Dumping Complaint**

**Concerning imports of Low Carbon Ferro-Chrome originating in China, Russia and Turkey**

Lodged on the basis of Art. 5 of REGULATION (EU) 2016/1036 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2016 on protection against dumped imports from countries not members of the European Union

**Legal Basis.**

This request is lodged on the basis of Regulation (EU) of the European Parliament and the Council N° 2016/1036 of 8 June 2016 on protection against dumped imports from countries not members of the European Union (the 'basic Regulation') and in particular Article 5 thereof.

**Applicant.**

The present Application is lodged by EUROALLIAGES on behalf of the sole EU producer of Low Carbon Ferro-Chrome (hereafter referred to as LCF) in the European Union.

The complainant producer is Elektrowerk Weisweiler GmbH. The company produces LCF at its production site in Germany.

The applicant represents 100% of EU production of LCF.

**Product concerned.**

The product concerned is Low Carbon Ferro-Chromium, containing by weight  $> 0,05\%$  but  $\leq 0,5\%$  carbon and falls under the Customs Heading 72024950. The chemical and mechanical properties of steels can be greatly improved by introducing certain alloying elements. For all practical purposes, the additions are invariably made in the form of material known as "ferroalloys". They are used in preparing special and alloy steels. Ferro-Chrome contains chromium as a major alloying element. The chromium is introduced as a constituent into a large number of steels. It makes the steel self-hardening and increases its hardenability and hardness. With low carbon content, high chromium steels (Cr  $>12\%$ ) are corrosion resistant. With high carbon content, chromium raises the abrasion and wear resistance. Chromium also increases the strength at high temperature. Due to these useful contributions, Ferro-Chrome finds wide application in steel industries.

To improve the chemical as well as mechanical properties of steels attempts were made to minimize the concentration of the detrimental and undesirable element (i.e. carbon) from steel. Chromium being a reactive metal any attempt to remove carbon by simple oxidation results in chromium oxidation. Hence the carbon removal techniques followed in steelmaking practice cannot be used for production of low carbon Ferro-Chrome. In fact, carbon removal is indeed a major problem in case of most of the ferroalloys. Use of complex equipment and problems involved during efficient removal of carbon is responsible for significant rise in cost of low carbon Ferro-Chrome. The conventional decarburization techniques are associated with many disadvantages i.e. high refractory consumption, poor metal recovery due to losses of chromium in slag etc.

For Ferro-chromium with the least carbon content, furnace carbon electrodes have been identified as a major source of carbon. In this case, the chromite ore-lime melt is made in the furnace without reduction, and it is mixed with FeSiCr in a ladle, outside the furnace (the mixing method, also known as the Perrin process). During the melting of the chromite ore and lime mixture, the oxidation potential is high (no metal formed) and thus carbon content in the slag is low. During mixing, there are no graphitized electrodes and a large amount of heat is released due to exothermic reactions of chromium and iron oxides with silicon and of interaction of CaO with SiO<sub>2</sub>. The heat release is high enough to allow the use of solid FeSiCr and/or liquid FeSiCr. The mixing process is highly turbulent, kinetically fast (at the beginning of the mixing stage), and efficient enough to remove silicon from the FeCr melt. The slag might be used in several ladles to enhance refining of the FeCr from silicon; however, the main objective of the mixing method is essentially lowcarbon FeCr processing.

The charge materials used to produce Low Carbon FeCr are chromite ore, lime, and FeSiCr. The starting charge materials have to be classified depending on phosphorus concentration, as phosphorus content affects the quality of Ferro-Chrome. Besides these main charge materials, the returns from the gas cleaning units (cyclones) with 25% to 40% Cr<sub>2</sub>O<sub>3</sub> are also used as charge components. FeSiCr can be used in a liquid (melt) or solid (granules) form and its typical composition is 48% to 51% Si and 28% to 30% Cr, with the balance composed of Fe and impurities. The main requirement to FeSiCr is that phosphorus content should not exceed 0.02% wt. Approx. 75.0% of the carbon reporting to Low Carbon Ferro-Chrome comes from the reductant Ferrosilico-Chrome (FeSiCr). Therefore the process and handling practice of FeSiCr must be such that the carbon content in FeSiCr remains as low as possible. The process involves the smelting in the furnace, slag and metal are tapped out together from the furnace taphole. Carbon quality control cannot be directly influenced in the furnace during smelting or feed preparation stage. Metal/slag is tapped in the ladle and some slag overflowing in the slag pots. The ladle is allowed to stand for two hours with lime at the top as insulation to allow the metal/slag separation (decarburization process). The first mould has low carbon content and the last cast records a higher level of carbon because it is at the point of metal/slag interface. Ferrosilico-Chrome ingots are selected according to the carbon from each mould. The use into the LCF is according to carbon grades in order to produce LCF product of desired carbon quality.

#### **Use.**

The product is used in:

Aerospace: Engine Turbines and landing gears

Turbines: Land and water based turbines

Heating: high temperature heat, stow and wires

Automobile: engine chains, catalytic converters, exhaust system, gear box, and clutch

Ship engine, and screws

Nuclear power pipes

Stainless steel tubing

Oil and gas Industry

Jewellery: Stainless steel watches

#### **Summary of the complaint.**

The complaint demonstrates *prima facie* the existence of injurious dumping by the countries concerned. The calculation of the dumping margin for each country (China, Russia and Turkey) was made on the basis on a comparison between their respective average import prices based on Eurostat, and actual average prices charged to independent customers on their respective domestic markets – except for China for which prices in Russia were used. On this basis the dumping margins vary from ranges for Turkey to 49% for China.

As a result of the dumping, the Union industry has been faced with a sharp decrease of its major economic indicators, i.e. production volume, capacity utilisation, sales volumes and prices on the Union market, and profitability during the period considered despite the growing market.

This has led the EU producer to introduce an AD complaint and to ask the Commission to investigate the matter.

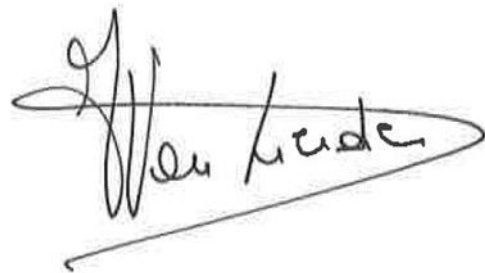
**Parties possibly concerned.**

Eti Elektrometalurji A.S., Serov /Cheliabinsk, Kluchevskiy Ferroalloys Plant, Chelyabinsk Electrometallurgical Integrated Plant, NOVOTROISK, JSC "Chelyabinsk Electrometallurgical Integrated Plant (ChEMK)" INCL. SEROV FERRO ALLOY PLANT, JSC «Management company «Russian Super Alloys», Anyang Lishi Industrial Co.,Ltd , Fengzhen Xinfeng Metallurgy, Shanxi Xinhanyu, Zhuhai Tuohua Minerals Co., Ltd., Dalian Pro-Top International Trade Co Ltd, Sichuan Yingjing Yiming Special Alloy Co., Ltd. , DAESAN (hk) CO LTD, CHANGHSIEN JAPAN CO LTD SHANGHAI OFFICE, Cometal , Metalchimica ,GFE,De-Metal ,FACI , Ampere , MFG , L&M, TKM , MP Diffusion , InvestMetal , Carbomax , ZTO Promet, Commexim , AMG Superalloys , Meca Trade Finland , Meca Trade Sweden , Siderit , London Metals Limited , Scandinavian Steel , Metalleghe spa, VDM Metals , Zollern , Schmidt&Clemens , AlfanaMetal, Precimetal , Blank , Breitenfeld , Reinhard Tweer , Groditz , Sande , Benteler , Gontermann , Magotteaux , Walzen Irle, RPS Siegen (LC) , Lucchini RS , Schmidt&Clemens Spain , Aperam.

Inès Van Lierde

Secretary General

EUROALLIAGES

A handwritten signature in black ink, appearing to read 'Inès Van Lierde', enclosed within a large, horizontal, hand-drawn oval shape.