



March 31, 2018

## **REACH STATEMENT**

**Optimus Steel Statement on Substances of Very High Concern to health and the environment based on the European Community REACH Regulation (EC 1907/2006) for the Registration, Evaluation, Authorization and Restriction of Chemicals)**

### **Purpose of the REACH Regulation:**

The purpose of the REACH Regulation is to ensure a high level of protection of human health and the environment.

### **REACH Main Requirements**

- Registration of substances imported into the European Union.
- Evaluation by the European Chemical Agency (ECHA) to determine the impact of substances on human health and the environment.
- Authorization – substances of very high concern- SVHC will require authorization for each use
- Restriction on the manufacture and use of substances where there is an unacceptable risk to human health or the environment.

### **Registration**

Substances imported into the EU must be reported, registered and evaluated by the ECHA. This part of the REACH process involves imported products into the EU and is not a requirement for others, if not supplying to the EU.

### **Substances of Very High Concern (SVHC)**

This statement explains Optimus Steel's responsibilities under REACH in relation to Substances of Very High Concern (SVHC). In general terms, SVHCs are substances that have hazards with serious consequences, e.g. they cause cancer, or they have other hazardous properties and/or remain in the environment for a long time.



## Articles

Optimus billets and hot rolled steel products are classified as articles based on the REACH guidelines. REACH guidelines define an article as depending more upon its shape as compared to its chemical content; e.g., cast billets, wire rod and rebar are defined as articles. For an article which contains substance(s) on the candidate list, the substance must be reported per section 33 of EC1907/2006 if one or more of the following is true:

- A substance on the candidate list must be present in the article
- The concentration must be 0.1 wt % or more
- The total amount of the substance imported is 1 metric ton or more per year
- The substance will be exposed in the normal and foreseeable use of the product

The latest European Chemical Agency (ECHA) candidate list of substances of very high concern (SVHC) can be found at <https://echa.europa.eu/candidate-list-table>

## Optimus Steelmaking Process and Steel Products

Optimus Steel's cast and hot rolled steel products are classified as articles and contain only alloying elements or residual elements that are dissolved in the liquid steel in the melting and refining process. During the high temperature refining process at temperatures in excess of 3000°F, chemical compounds that may have been present in the raw materials such as hydrocarbons and all other compounds are either decomposed, absorbed in the steelmaking slag, or are combusted in the oxidizing atmosphere of the melting furnace.

The solidified steel consists of an essentially uniform metallic bonded structure with iron and other elements present in the elemental form in the zero valence state. There are no remaining hydrocarbons or compounds, other than inter-metallic compounds between iron and elements including nitrogen, carbon, and trace amounts of inclusions that form during solidification and are entrapped in the steel matrix. Inclusions are oxides or sulfides of elements present in the liquid steel or form during solidification. Inclusion content in steel products is dependent upon melting and refining methods and although important in the properties of some steels, oxide and sulfide inclusions have no environmental or health effect.

The above description of the steelmaking process at Optimus Steel makes it clear that compound substances will not survive the high temperature steelmaking process, and that the finished steel products consists only of metallic bonded elements and incidental sulfide and oxide inclusions. No hazardous or non-hazardous compounds are present in the finished steel product.



## Final Statement

The substances of very high concern listed in the REACH regulation do not exist in steel articles produced by Optimus Steel for the reasons stated previously including:

- If present in or on raw materials, SVHC compounds will decompose, be absorbed by the slag or be combusted at steelmaking temperatures.
- There are no compounds in steel other than metallic bonded compounds between metal atoms in the zero valence state.

If you need any further information please contact the undersigned.

Sincerely,

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