



March 31, 2018

**Subject: Living Building Challenge 3.0, Materials, Section 10 Red List**

The Living Building Challenge 3.0 published by the International Living Future Institute lists materials and chemicals that must not be contained or added to building materials to be in compliance with this environmental initiative.

**Red List Materials and Chemicals**

No chemical compounds in the Red List are present in steel, and the elements Cd, Hg and Pb are not intentionally added to the steel in the manufacturing process. The possible presence of Cd, Hg and Pb from the recycled steel used in steel manufacturing cannot be ruled out. However, weight percent values of Cd, Hg and Pb are well below the threshold amounts reported in the RoHS statement (Restriction on Hazardous Substances) that is available on the Optimus Steel website. Our specific response to each of the Red List chemicals with respect to their presence in steel products produced by Optimus Steel is shown in the following table on page 2 of this document:



| Element or Chemical Compound                                      | Present or Added to Steel Products | Optimus Statement                          |
|---|------------------------------------|--|
| Alkylphenols  | Not Present                        | No chemical compounds are present in steel |
| Asbestos  | Not Present                        | No chemical compounds are present in steel |
| Bisphenol A (BPA)   | Not Present                        | No chemical compounds are present in steel |
| Cadmium   | Not Added                          | See RoHS Statement                         |
| Chlorinated Polyethylene and Chlorosulfonated Polyethylene        | Not Present                        | No chemical compounds are present in steel |
| Chlorobenzenes  | Not Present                        | No chemical compounds are present in steel |
| CFC's and HCFCs   | Not Present                        | No chemical compounds are present in steel |
| Chloroprene (Neoprene)  | Not Present                        | No chemical compounds are present in steel |
| Chromium VI   | Not Present                        | No chemical compounds are present in steel |
| Chlorinated Polyvinyl Chloride (CPVC)                             | Not Present                        | No chemical compounds are present in steel |
| Formaldehyde (added)  | Not Present                        | No chemical compounds are present in steel |
| Halogenated Flame Retardant's.                                    | Not Present                        | No chemical compounds are present in steel |
| Lead  | Not Added                          | See RoHS Statement                         |
| Mercury   | Not Added                          | See RoHS Statement                         |
| Polychlorinated Biphenyls (PCBs)                                  | Not Present                        | No chemical compounds are present in steel |
| Perfluorinated Compounds (PFCs)                                   | Not Present                        | No chemical compounds are present in steel |
| Phthalates  | Not Present                        | No chemical compounds are present in steel |
| Polyvinyl Chloride (PVC)  | Not Present                        | No chemical compounds are present in steel |
| Polyvinylidene Chloride (PVDC)                                    | Not Present                        | No chemical compounds are present in steel |
| Short Chain Chlorinated Parffins                                  | Not Present                        | No chemical compounds are present in steel |
| Wood treatments containing Creosote, Arsenic or Pentachlorophenol | Not Present                        | No chemical compounds are present in steel |
| Volatile Organic Compounds (VOCs) in wet applied products         | Not Present                        | No chemical compounds are present in steel |

Sincerely,

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