EUROPEAN ENVIRONMENTAL LEGISLATION
RoHS DIRECTIVE 2015/863, PFOS DIRECTIVE 2006/122/EC / RoHS 3

Article 4 - paragraph 1 reads, "Member States shall ensure that the EEE placed on the market, including cables and spare parts for its repair, its reuse, updating of its functionalities or upgrading of its capacity, does not contain the substances listed in Annex II. Annex II references maximum concentration values tolerated by weight for lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE)."

While these substances are not added to the steel in the steelmaking process, some of the substances may be present at very low levels as residuals in the raw materials making up the charge. In recognition of this, there are proposed limit values which are based on existing Community Chemical legislation and are considered the most appropriate to ensure a high level of protection. (*The proposed maximum concentration values are: 0.01% maximum for cadmium and 0.1% maximum for the other substances listed below*). The steel, as supplied by NLMK USA facilities, readily meets these proposed maximum concentration values.

Due to the low or zero concentration levels present in the steel, the banned substances are not routinely tested for. Based on test sampling of the steel, as reported from a cross-section of NLMK suppliers, we are providing typical levels of these substances.

Lead: Typical lead levels in the steel are between 0.001 to 0.002%. Would not anticipate exceeding 0.01%.

Mercury: Mercury levels of the steel checked less than 0.00001%; Would not anticipate exceeding 0.0001%.

Cadmium: Cadmium levels of the steel checked less than 0.0002%; Would not anticipate exceeding 0.002%.

Hexavalent Chromium: All chromium contained in the steel is present either as elemental chromium or as non-metallic chromium oxides. No surface treatments containing hexavalent chromium are applied to the steel during processing at NLMK Pennsylvania or Indiana. Hexavalent Chromium levels would be considered essentially as nil.

Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers: These compounds are not present in the steel. No substances containing these compounds, including Deca Brominated Diphenyl Ether (DecaBDE), come into contact with the steel surface during processing at NLMK USA facilities.

Perfluorooctane Sulfonates (PFOS): These compounds are not by design present in the steel, nor do substances containing these compounds come into contact with the steel surface during processing at NLMK USA facilities.

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Hexabromocyclododecane (HBCDD): These compounds are not by design present in the steel, nor do substances containing these compounds come into contact with the steel surface during processing at NLMK USA facilities.

Bis (2-ethylhexyl) phthalate (DEHP): These compounds are not by design present in the steel, nor do substances containing these compounds come into contact with the steel surface during processing at NLMK USA facilities.

Butyl benzyl phthalate (BBP): These compounds are not by design present in the steel, nor do substances containing these compounds come into contact with the steel surface during processing at NLMK USA facilities.

Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP): These compounds are not by design present in the steel, nor do substances containing these compounds come into contact with the steel surface during processing at NLMK USA facilities.

As part of the galvanizing process, elemental lead is intentionally added to the galvanize bath as a spangle former. It is present in the galvanize coating at a nominal value of 0.03% by weight, and is therefore under the maximum concentration detailed in the RoHS (RoHS 2) directive. Mercury and cadmium are not added to zinc galvanizing baths for any reason, and therefore would only be detectable at trace amounts. PBB and PBDE organic chemicals are not used in the manufacture of galvanized steels. Therefore Sharon Coating, LLC is in compliance with the RoHS (RoHS 2) requirements for maximum limits for lead, mercury, cadmium, PBB, and PBDE.

RoHS requirements clearly prohibit the use of hexavalent chromium chemical treatments on the surface of galvanized sheets. Therefore material supplied by Sharon Coating, LLC with standard chem treat passivation is *not* in compliance with this directive. Sharon Coating, LLC does however offer an alternative chem treat passivation that is RoHS compliant. Any material supplied with the non-chrome passivation product would meet this requirement. To this end, it is very important when ordering a chem treated product that RoHS compliant chem treat passivation must be noted that at the time of submission of a purchase order.