07.08.2024

Subject: Hazardous Substances / Substances of Concern

To Whom It May Concern:

Iskenderun Demir ve Çelik A.Ş. (ISDEMIR) do not routinely analyze for presence of following hazardous substances to control the impact of environmentally sensitive material getting into our steel products.

- Lead, Mercury, Cadmium or Chromium+6
- Ozone depleting chemicals,
- Environmentally persistent transformer fluids (Polychlorinated Byphenyls, PCBs) or flame-retardants (Polybrominated Biphenyls, PBBs, etc.)
- Dibutyl Phthalate (DBP)
- Diethyl Hexyl Phthalate (DEHP)
- Benzyl Butyl Phthalate (BBP)
- Diisobutyl Phthalate (DIBP)

Because, they are not a part of the manufacturing process, add no inherent quality to the product, and are typically, if present, below threshold concentrations.

1. Lead and Cadmium, due to the manufacturing process, are inherent in the steel as a tramp material and in most cases be present at less than 0.001 % per weight. Mercury, if present, would be less than 0.0001 % per weight. Chromium is routinely added to certain steel products, but steel manufacturing process prevents the formation of the Cr+6 phase in the final product. Cr+6 may be present at less than 0.001 % per weight. This conclusion is confirmed by our laboratory and an independent testing laboratory, Intertek Laboratory accredited by the TURKAK (Turkish Accreditation Institution). RoHS Test was performed according to RoHS 3 Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

2. Ozone depleting chemicals and environmentally persistent transformer fluids / flame-retardants are not a part of the steel manufacturing process and would not survive in the steel manufacturing process. These hazardous chemicals are not added as a part of the post manufacturing process.

OYAK MINING METALLURGY
İSKENDERUN DEMİR VE ÇELİK A.Ş.
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Trade Registry Number: İskenderun-1599
Mersis Number: 0879000967000028
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EU RoHS specifies maximum levels for the following 10 restricted substances. The first six applied to the original RoHS while the last four were added under RoHS 3, which took effect July 22, 2019.
RoHS Proposed Maximum Limits were approved by EU council in 2019;

SUBSTANCE	LIMITS	
Cadmium (Cd)	0.01% (100ppm)	
Lead (Pb)	0.1% (1000ppm)	
Mercury (Hg)	0.1% (1000ppm)	
Hexavalent Chromium (Cr+6) (For non-metal)	0.1% (1000ppm)	
Hexavalent Chromium (Cr+6) (For metal)	**Colorimetric Result** $< 0.10\ \mu g/cm^2$ $\geq 0.10\ \mu g/cm^2$ and $\leq 0.13\ \mu g/cm^2$ $> 0.13\ \mu g/cm^2$	**Qualitative Result** Negative Inconclusive Positive
Poly Brominated Biphenyls (PBB)	0.1% (1000ppm)	
Poly Brominated Diphenyl Ethers (PBDE)	0.1% (1000ppm)	
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% (1000ppm)	
Butyl benzyl phthalate (BBP)	0.1% (1000ppm)	
Dibutyl phthalate (DBP)	0.1% (1000ppm)	
Diisobutyl phthalate (DIBP)	0.1% (1000ppm)	

Testing Item	Testing Method	Reporting Limit
Cadmium (Cd)	With reference to IEC 62321- 5:2013, by microwave or acid digestion and determined by ICP-OES	4 ppm
Lead (Pb)	With reference to IEC 62321- 5:2013, by microwave or acid digestion and determined by ICP-OES	4 ppm
Mercury (Hg)	With reference to IEC 623214:2013/AMD1:2017, by microwave or acid digestion and determined by ICP-OES	10 ppm
Hexavalent Chromium (Cr+6) (For non-metal)	With reference to IEC 62321-7 -2:2017, by alkaline digestion and determined by UV-VIS Spectrophotometer	Plastic 25 ppm (PVC Based) / 8,33 ppm (Other)
Hexavalent Chromium (Cr+6) (For metal)	With reference to IEC 62321-7-1:2015, by boiling water extraction and determined by UV-VIS spectrophotometer	0,1 ppm with 50 cm^2 (In testing solution)
PBBs/PBDEs	With reference to IEC 62321- 6:2015, by solvent extraction and determined by GC/MS and HPLC	5 ppm
Phthalates	With reference to IEC 62321-8 (111/321/CD), by solvent extraction and determined by GC-MS.	50 ppm

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3. Iskenderun Demir ve Çelik A.Ş. (ISDEMIR) routinely scrutinizes to detect the radioactivity levels of scrap that getting into our steel products (radioactivity detection is accomplished in accordance with "The Instructions of Controlling Radiation Level of Scrap"). This detection is carried out by use of portable and fixed detection equipment. Monitors are installed to control the possibility of errant radioactivity from scrap to contaminate our steel products. Radioactivity detection is also done for every heat in steel making process. Radiation levels are below threshold concentrations or no inherent quantity for both scrap and samples of liquid steel. Typical measured radiation level is less than 22µ rem/hr (specification max: 40µ rem/hr).

If you have any questions, please advise.

Best Regards,

Serdar GÜNBAY

Quality Metallurgy Manager

Buğra ŞENER

Executive Vice President Operations

Disclaimer: This declaration is given according to the known production techniques. Isdemir is not responsible for any differences arising from any technical or technological changes.

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