



BSI Standards Publication

**Steels and cast irons - Determination of
substances listed in the directives 2011/65/EU
(RoHS) and 2000/53/EC (ELV) - Limitations**

National foreword

This Published Document is the UK implementation of CEN/TR 10364:2018. It supersedes PD CEN/TR 10364:2016, which is withdrawn.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

**Steels and cast irons - Determination of substances listed
in the directives 2011/65/EU (RoHS) and 2000/53/EC
(ELV) - Limitations**

Aciers et fontes - Déterminations des substances
listées dans les directives 2011/65/EU
(RoHS) et 2000/53/EC (ELV) - Limites

Stahl und Gusseisen - Die Bestimmung der
Substanzen in den Richtlinien aufgeführt 2011/65/
EU (RoHS) und 2000/53/EG (ELV) - Beschränkungen

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European foreword

This document (CEN/TR 10364:2018) has been prepared by Technical Committee ECISS/TC 102 “Methods of chemical analysis for iron and steel”, the secretariat of which is held by SIS.

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This document supersedes CEN/TR 10364:2016.

1 Scope

The present document gives guidance regarding the chemical composition controls of steels (except chrome plated products) and cast irons in respect of the European legislation, namely Directives 2011/65/EU (RoHS) [1], repealing 2002/95/EU, the Commission Delegated Directive EU 2015/863 amending Annex II to Directive 2011/65/EU [10] and 2000/53/EC (ELV) [2].

These Directives require the characterization of these materials for cadmium (Cd), hexavalent chromium (Cr (VI)), mercury (Hg), lead (Pb), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE) and the four phthalates DEHP, BBP, DBP and DIBP. Nevertheless, the Directives do not reflect the correspondence between these elements/compounds and the normal composition of each material concerned. In other words, for every material there is an obligation to determine all the compounds listed, independently of the relevance of such controls.

2 Normative references

There are no normative references in this document.

3 Terms and Definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Requirements and applicability

4.1 General

Directive 2011/65/EU, [article 4](#), restricts the following substances to the maximum concentration values to the following :

- Lead: 0,1 %;
- Mercury: 0,1 %;
- Cadmium: 0,01 %;
- Hexavalent chromium: 0,1 %;
- Polybrominated biphenyls (PBB): 0,1 %;
- Polybrominated diphenyl ethers (PBDE): 0,1 %.
- Bis(2-ethylhexyl) phthalate (DEHP): 0,1 %.
- Butyl benzyl phthalate (BBP): 0,1 %.
- Dibutyl phthalate (DBP): 0,1 %.
- Diisobutyl phthalate (DIBP): 0,1 %.

Steel and cast iron manufacturers are often required to state/provide compliance with the Directives above and submit analytical results for each of those elements/compounds. However, due to the manufacturing processes and the inherent properties of the steels and cast irons, the determination of most of the compounds listed is not applicable or relevant.