

SAFEGUARDS

SGS CONSUMER TESTING SERVICES

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IEC 62321 STANDARDS – 2013 EDITION

A vote concerning updates to the IEC 62321 standards was concluded on May 3, 2013. The 2013 edition of IEC 62321-1, -2, -3-1, -3-2, -4 & -5 unanimously passed the Final Draft International Standard (FDIS) stage and are now in the Publications Being Printed (BPUB) phase. The results of the vote were posted on the [IEC website](#) and a publication date is expected to be June 30, 2013 with the exception of IEC 62321-1 which was already published in May 2013.

The production, use and disposal of electro-technical products can have an impact on the environment, especially when certain chemical substances and compounds are being used in the manufacturing.

The IEC 62321 standard on Determination of Certain Substances in Electrotechnical Products outlines methods for testing electro-technical products in order to determine the levels of chemical substances regulated by international legal frameworks like EU Restriction of Hazardous Substances (RoHS) or Administrative Measure on the Control of Pollution Caused by Electronic Information Products (EIPs) (so-called China RoHS). These substances currently include lead, mercury, cadmium, hexavalent chromium, and two types of brominated flame retardants, polybrominated biphenyls and polybrominated diphenyl ethers (PBB and PBDE).

The standard was developed to ensure that tests are conducted in a consistent and reliable manner by laboratories all over the world, while following the same method specification in order to ensure compliance with the standard regulations. As usual in standardisation the 2008 edition of standard IEC 62321 underwent a maintenance cycle in order to include best practices and technical progress in the procedures.

Main changes from the 2008 edition of IEC 62321 to the 2013 edition include that the single document will be split in a family of standards. New test equipment like Combustion Ion Chromatography (C-IC) and Cold Vapour Atomic Fluorescence Spectrometry (CV-AFS) have been introduced and the sample preparation standard IEC/PAS 62596 has been included. Table 1 gives an overview on the first set of 2013 edition standards which will be published soon.



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Table 1: First set of IEC 62321 2013 edition

IEC Standard	Scope
62321-1	Introduction and overview
62321-2	Disassembly, disjointment and mechanical sample preparation
62321-3-1	Screening of electrotechnical products for lead, mercury, cadmium, total chromium and total bromine using X-ray fluorescence spectrometry
62321-3-2	Screening of total bromine in polymers and electronics by combustion – Ion chromatography (C-IC)
62321-4	Determination of mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS
62321-5	Determination of cadmium, lead, and chromium in polymers and electronics and cadmium and lead in metals by AAS, AFS, ICP-OES and ICP-MS

Completing the set of standards mentioned above there are four additional standards in different draft stages under preparation to provide test methods for PBB/PBDE (IEC 62321-6), hexavalent chromium (IEC 62321-7-1 and -2) and phthalates (IEC 62321-8). It is expected that those standards will be published sequentially once they have received the positive voting of the national committees. Planned publication date for IEC 62321-6 is February 2014, IEC 62321-7-1 is expected in April 2014, IEC 62321-7-2 is expected in November 2014 and the last part IEC 62321-8 will be published most likely in March 2015.

SGS is committed to keeping you up to date on the latest regulations and policies concerning the use of hazardous substances in consumer products. Furthermore,

through its global expertise and network of chemical labs, SGS can support you in ensuring your products comply with relevant hazardous substances requirements in all relevant markets around the world. Whether you are in need of hazardous substances testing or other third party verification, certification or inspection services, SGS is ideally positioned to satisfy all your business's needs. www.sgs.com/cgmr

FOR ENQUIRIES:

Global Competence Support Centre: gcsc@sgs.com
DE—Udo Krischke, Tel: +49 (0)6128 - 744 235 or udo.krischke@sgs.com

Asia – Hong Kong. Tel: +852 2334 4481 Fax: +852 2144 7001 mktg.hk@sgs.com
Australasia – Perth. Tel: +61 (0) 3 9790 3418 Fax: +61 (0) 3 9701 0988 au.cts@sgs.com
Europe – London – UK. Tel: +44(0) 203 008 7860 Fax: +44 (0) 203 00 7870 gb.cts.sales@sgs.com
Africa & Middle East – Turkey. Tel: +90 212 368 40 00 Fax: +90 212 296 47 82 sgs.turkey@sgs.com
Americas – USA. Tel: +1 973 575 5252 Fax: +1 973 575 7175 uscts.inquiries@sgs.com

www.sgs.com/cts Global Competence Support Centre: gcsc@sgs.com
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