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**COMMISSION REGULATION (EU) No 494/2011**

**of 20 May 2011**

**amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the  
Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex  
XVII (Cadmium)**

**(Text with EEA relevance)**

**(OJ L 134, 21.5.2011, p. 2)**

Corrected by:

► **C1** Corrigendum, OJ L 136, 24.5.2011, p. 105 (494/2011)

**COMMISSION REGULATION (EU) No 494/2011****of 20 May 2011****amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII (Cadmium)****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC <sup>(1)</sup>, and in particular Article 131 thereof,

Whereas:

- (1) By its Resolution of 25 January 1988 on a Community action programme <sup>(2)</sup> the Council invited the Commission to combat environmental pollution by cadmium.
- (2) In the table set out in Annex XVII to Regulation (EC) No 1907/2006, entry 23 contains restrictions on the use and marketing of cadmium in mixtures and articles.
- (3) Cadmium and cadmium oxide are classified as carcinogen category 1B and aquatic acute and chronic toxicity category 1.
- (4) Since 31 December 1992, cadmium has been prohibited under Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations <sup>(3)</sup> as a colouring agent in a number of polymers and paints, as a stabiliser in polyvinyl chloride (PVC) in a number of applications, and cadmium plating is prohibited in a number of applications. Directive 76/769/EEC was repealed and replaced by Regulation (EC) No 1907/2006 with effect from 1 June 2009.

<sup>(1)</sup> OJ L 396, 30.12.2006, p. 1.

<sup>(2)</sup> OJ C 30, 4.2.1988, p. 1.

<sup>(3)</sup> OJ L 262, 27.9.1976, p. 201.

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- (5) In 2007 the European risk assessment on cadmium<sup>(1)</sup> under Council Regulation (EEC) No 793/93 of 23 March 1993 on the evaluation and control of the risks of existing substances<sup>(2)</sup> was completed. On 14 June 2008 the Commission published a Communication on the results of the risk evaluation and the risk reduction strategies for cadmium and cadmium oxide<sup>(3)</sup> which recommended a marketing and use restriction for cadmium in brazing sticks and jewellery.
- (6) The Communication outlined the need for specific measures to limit the risks from the use of cadmium-containing brazing sticks and from wearing cadmium-containing jewellery. Professionals and hobbyists are exposed to fumes in the process of brazing. Consumers including children are exposed to cadmium in jewellery through skin contact or licking.
- (7) The Commission has commissioned a study on Socio-Economic Impact of a Potential Update of the Restrictions on the Marketing and Use of Cadmium in jewelleries, brazing alloys and PVC. The results of the study were published in January 2010<sup>(4)</sup>.
- (8) The existing provisions concerning paint containing zinc should be clarified to define high zinc content. Provisions concerning paint on painted articles should be also clarified.
- (9) Since 2001 the European PVC industry has taken the initiative on a voluntary basis to refrain from using cadmium as a stabiliser in newly produced PVC for those applications which were not yet regulated under Directive 76/769/EEC. This voluntary initiative eventually led to a phase out of the use of cadmium in PVC.
- (10) The prohibition of the use of cadmium should be extended to all articles made from PVC in order to comply with the objective of combating cadmium pollution.
- (11) A derogation for mixtures produced from PVC waste and referred to as 'recovered PVC' should be granted to allow their placing on the market for use in certain construction products.
- (12) The use of recovered PVC should be encouraged in the manufacture of certain construction products because it allows the reuse of old PVC, which may contain cadmium. Consequently a higher limit value for cadmium should be granted for these construction products. This avoids PVC being discarded in landfills or incinerated causing release of carbon dioxide and cadmium in the environment.

<sup>(1)</sup> [http://ecb.jrc.ec.europa.eu/documents/Existing-chemicals/RISK\\_ASSESSMENT/REPORT/cdmetalreport303.pdf](http://ecb.jrc.ec.europa.eu/documents/Existing-chemicals/RISK_ASSESSMENT/REPORT/cdmetalreport303.pdf)

<sup>(2)</sup> OJ L 84, 5.4.1993, p. 1.

<sup>(3)</sup> OJ C 149, 14.6.2008, p. 6.

<sup>(4)</sup> [http://ec.europa.eu/enterprise/sectors/chemicals/files/markrestr/study-cadmium\\_en.pdf](http://ec.europa.eu/enterprise/sectors/chemicals/files/markrestr/study-cadmium_en.pdf)

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- (13) This Regulation should apply 6 months after the entry into force to allow operators to ensure compliance with the provisions of this Regulation.
- (14) It is foreseen that due to the prohibition of cadmium in new PVC, the content of cadmium in construction products manufactured from recovered PVC should diminish gradually. Therefore, the limit value for cadmium should be reviewed accordingly and the European Chemicals Agency (ECHA) should be involved in reviewing the restriction as provided for in Article 69 of Regulation (EC) No 1907/2006.
- (15) In accordance with the provisions on transitional measures in Article 137(1)a of REACH it is necessary to amend Annex XVII to Regulation (EC) No 1907/2006.
- (16) The measures provided for in this Regulation are in accordance with the opinion of the Committee established under Article 133 of Regulation (EC) No 1907/2006,

HAS ADOPTED THIS REGULATION:

*Article 1*

Annex XVII to Regulation (EC) No 1907/2006 is amended in accordance with the Annex to this Regulation.

*Article 2*

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

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It shall apply from 10 December 2011.

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This Regulation shall be binding in its entirety and directly applicable in all Member States.

**▼B***ANNEX*

In Annex XVII to Regulation (EC) No 1907/2006, the table setting out the designation of the substances, groups of substances and mixtures and the conditions of restriction is amended as follows:

1. in the second column of entry 23, paragraphs 1 to 4 are replaced by the following:

- ‘1. Shall not be used in mixtures and articles produced from synthetic organic polymers (hereafter referred to as plastic material) such as:
- polymers or copolymers of vinyl chloride (PVC) [3904 10] [3904 21]
  - polyurethane (PUR) [3909 50]
  - low-density polyethylene (LDPE), with the exception of low-density polyethylene used for the production of coloured masterbatch [3901 10]
  - cellulose acetate (CA) [3912 11]
  - cellulose acetate butyrate (CAB) [3912 11]
  - epoxy resins [3907 30]
  - melamine-formaldehyde (MF) resins [3909 20]
  - urea-formaldehyde (UF) resins [3909 10]
  - unsaturated polyesters (UP) [3907 91]
  - polyethylene terephthalate (PET) [3907 60]
  - polybutylene terephthalate (PBT)
  - transparent/general-purpose polystyrene [3903 11]
  - acrylonitrile methylmethacrylate (AMMA)
  - cross-linked polyethylene (VPE)
  - high-impact polystyrene
  - polypropylene (PP) [3902 10]
  - high-density polyethylene (HDPE) [3901 20]
  - acrylonitrile butadiene styrene (ABS) [3903 30]
  - poly(methyl methacrylate) (PMMA) [3906 10].
- Mixtures and articles produced from plastic material shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,01 % by weight of the plastic material.
- C1** By way of derogation, the second subparagraph shall not apply to articles placed on the market before 10 December 2011. ◀
- The first and second subparagraphs apply without prejudice to Council Directive 94/62/EC (\*) and acts adopted on its basis.
2. Shall not be used in paints [3208] [3209].
- For paints with a zinc content exceeding 10 % by weight of the paint, the concentration of cadmium (expressed as Cd metal) shall not be equal to or greater than 0,1 % by weight. Painted articles shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,1 % by weight of the paint on the painted article.
3. By way of derogation, paragraphs 1 and 2 shall not apply to articles coloured with mixtures containing cadmium for safety reasons.
4. By way of derogation, paragraph 1, second subparagraph shall not apply to:
- mixtures produced from PVC waste, hereinafter referred to as “recovered PVC”,
  - mixtures and articles containing recovered PVC if their concentration of cadmium (expressed as Cd metal) does not exceed 0,1 % by weight of the plastic material in the following rigid PVC applications:
    - (a) profiles and rigid sheets for building applications;
    - (b) doors, windows, shutters, walls, blinds, fences, and roof gutters;
    - (c) decks and terraces;
    - (d) cable ducts;
    - (e) pipes for non-drinking water if the recovered PVC is used in the middle layer of a multilayer pipe and is entirely covered with a layer of newly produced PVC in compliance with paragraph 1 above.

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Suppliers shall ensure, before the placing on the market of mixtures and articles containing recovered PVC for the first time, that these are visibly, legibly and indelibly marked as follows: “*Contains recovered PVC*” or with the following pictogram:



In accordance with Article 69 of this Regulation, the derogation granted in paragraph 4 will be reviewed, in particular with a view to reducing the limit value for cadmium and to reassess the derogation for the applications listed in points (a) to (e), by 31 December 2017.

(\*) OJ L 365, 31.12.1994, p. 10.’

2. in the second column of entry 23, paragraphs 8, 9, 10 and 11 are added as follows:

‘8. Shall not be used in brazing fillers in concentration equal to or greater than 0,01 % by weight.

Brazing fillers shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,01 % by weight.

For the purpose of this paragraph brazing shall mean a joining technique using alloys and undertaken at temperatures above 450 °C.

9. By way of derogation, paragraph 8 shall not apply to brazing fillers used in defence and aerospace applications and to brazing fillers used for safety reasons.

10. Shall not be used or placed on the market if the concentration is equal to or greater than 0,01 % by weight of the metal in:

(i) metal beads and other metal components for jewellery making;

(ii) metal parts of jewellery and imitation jewellery articles and hair accessories, including:

- bracelets, necklaces and rings,
- piercing jewellery,
- wrist-watches and wrist-wear,
- brooches and cufflinks.

► **C1** 11. By way of derogation, paragraph 10 shall not apply to articles placed on the market before 10 December 2011 and jewellery more than 50 years old on 10 December 2011. ◀’