

# Safety Information

## **Generic Safety Information Sheet** Recovered Paper and REACH





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## Recovered Paper and REACH

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## BACKGROUND

### Paper Recycling

Over 60 million tonnes of recovered paper was collected for recycling in Europe (EU27 + Norway and Switzerland) in 2007. This corresponds to a 64,5% recycling rate for paper and board.

The trend is growing: Since 1991 utilisation of recovered paper increased by 123% whereas European paper production increased at the same time by 56%. This trend is continuing and industry has voluntarily committed to increasing recycling (European Declaration on Paper Recycling).

The paper recovery chain is one of various agents, starting with conversion of paper for end-users of paper products and ending in recycling into new paper. To facilitate precise discussions on the issue in the various steps of recovery, one has to distinguish between recovered paper and recycled paper:

#### Recovered paper:

*used paper based articles, collected and where appropriate cleaned by dry sorting. No chemical reaction, no new substances produced. A substance or, sometimes, a mixture in REACH.*

#### Recycled paper:

*an article, complying with REACH like virgin paper.*

For the purposes of this document, only the recovered paper is relevant. The terms are further explained in the chart below.

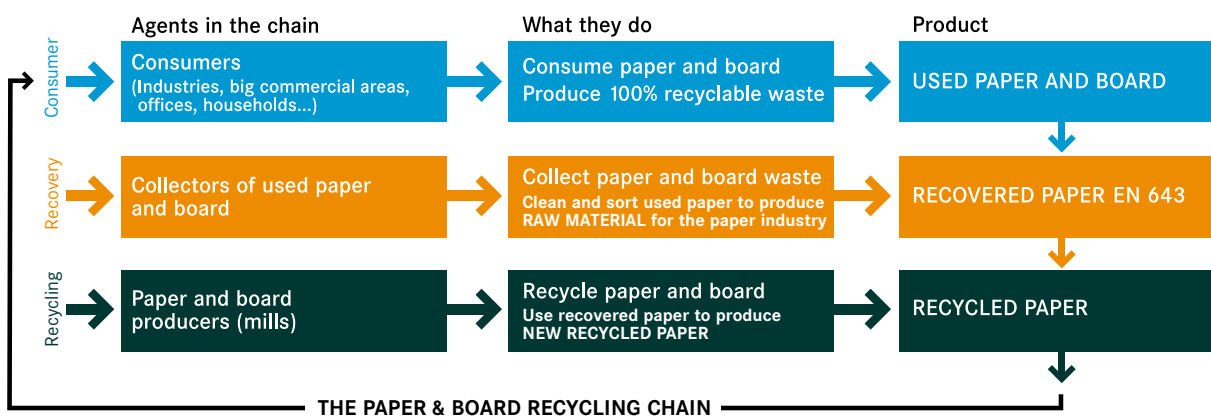


CHART: Terms and definitions used in paper recycling.  
Paper recovery is a chain of agents that work together.

## REACH Regulation

REACH is a European Community Regulation on chemicals and their safe use (EC 1907/2006). It deals with the Registration, Evaluation, Authorisation and Restriction of Chemical substances. The law entered into force on 1 June 2007.

The aim of REACH is to improve the protection of human health and the environment through better and earlier identification of the intrinsic properties of chemical substances. The REACH Regulation gives greater responsibility to industry to manage the risks from chemicals and to provide safety information on the substances.

REACH provisions will be phased-in over 11 years. Companies can find explanations of REACH in the guidance documents and can contact a number of helpdesks: CEPI has issued paper industry specific guidance<sup>1</sup> which is periodically updated.

Pursuant to Article 2(2) of REACH, waste materials, including those from recovery processes, are not considered as substances, mixtures or articles. Therefore, for the purpose of REACH, recovered substances (on their own, in mixtures or in articles) should only be understood as substances that, after having been part of waste materials, have ceased to be waste according to the criteria set by the Waste Directive (2008/98/EC).

Inversely, recovered paper can also be continued to be recycled as waste without falling under REACH. This may be needed in special cases where e.g. non-paper elements in certain recovered paper articles are too complex regarding the information requirements to comply with REACH, or when the collected paper has not been confirmed to comply with end-of-waste criteria.

## Recovered substances and REACH

The Commission issued in October 2008 “Waste and Recovered Substances” (CA/24/2008 rev.2)<sup>2</sup> which clarifies the general principles for waste and recovered substances for REACH, and gives useful interpretation for the major recovered materials including paper. Firstly, the document acknowledges the heterogeneous nature of recovered substances:

*“Recovered substances may contain impurities which may distinguish them from corresponding materials not deriving from recovery processes. This is in particular the case when recovered materials contain unintended constituents which have no function for the recovered material and the only reason for their presence in the recovered material is that they were part of the input waste for the recovery process. The content and nature of such unintended constituents may vary significantly from batch to batch (e.g. in time and location). Full knowledge of the exact composition in each such case may require substantial analytical efforts. While such constituents may have originally been intentionally added as substances to form a mixture, their presence in the recovered material may be unintended (depending on whether these constituents have a specific function or not) and therefore, they can be considered as impurities, which do not require separate registration.”*

<sup>1</sup> CEPI guidance document for implementing REACH in pulp and paper industry (ENV/079/08 )

<sup>2</sup> This document will later be adopted by European Chemicals Agency, ECHA, in the series of REACH implementation guidance documents. The Agency has the task of providing technical and scientific guidance and tools for the operation of the Regulation (EC) No 1907/2006 (REACH) under its Article 77(2).

Secondly, the document establishes that recovered paper, for the purposes of REACH, is a substance (or in some cases a mixture of two or more substances, see below). Recovered paper mainly consists of cellulose pulp. EINECS identifies cellulose pulp as follows:

*“The fibrous substances obtained from the treatment of lignocellulosic substances (wood or other agricultural fiber sources) with one or more aqueous solutions of pulping and/or bleaching chemicals. Composed of cellulose, hemi-cellulose, lignin, and other minor components. The relative amounts of these components depend on the extent of the pulping and bleaching processes.”*  
(EINECS number 265-995-8).

Cellulose pulp is listed in Annex IV, and consequently, is exempted from registration, downstream user and evaluation obligations. Recovered paper may contain other constituents such as pigments, inks, glues, fillers, etc. Regarding the recovery and recycling process, constituents that have no specific function in the material (cellulose pulp), can therefore be considered as impurities.

**Recovered paper consisting exclusively of cellulose pulp with impurities will therefore be exempt from registration, downstream user and evaluation obligations.**

In case a recovered paper grade has a non-cellulose pulp element in excess of 20% w/w<sup>3</sup>, this element should be considered as an additional substance and the grade as a mixture of cellulose pulp and the substance concerned. This requires a characterisation of recovered paper for finding out what a typical constitution of recovered paper grades is; such characterisation was first done by CEPI in November 2008 and will be repeated periodically. No batch by batch testing is required<sup>4</sup>.

Whereas cellulose pulp is exempted from the main requirements of REACH being listed in Annex IV, those other substances may be exempted either by being included in Annex IV or V of REACH, or by using the exemption provided for in Article 2.7d of REACH Regulation. In any case, the substance has to be identified and, in case of Article 2.7d, registered.

Finally, the document gives guidance in establishing whether the substance is the same as the one that was registered:

*“In assessing whether the recovered substance is the same as a substance that has already been registered or whether the substances are different, recovery installations need to apply the rules of the guidance on substance identification and the guidance on data sharing. In particular, it should be noted that this is an assessment that recovery installations need to make themselves. There is no confirmation given on “sameness” by the European Chemicals Agency.”*

However,

*“for substances with a well-defined composition (i.e. mono-constituent and multi-constituents substances) the sameness of the naming is in principle sufficient to be able to share data even though certain impurities might lead to a different classification/hazard profile. Only in cases*

<sup>3</sup> The 20/80 rule is set in the Commission document as a rule of thumb: Those exceeding 20% of the weight should be considered an individual substance instead. Also any substance that is intentionally added to the mixture should be considered the same way. The latter, however, is not done with recovered paper.

<sup>4</sup> In cases where such constituents are regularly close to this limit, it is recommended to take a safe approach and consider the constituent as a separate substance. Where constituents exceed 20% only in rare, individual batches which cannot be realistically expected under normal conditions, those constituents do not have to be considered as separate substances. It is also not necessary to examine each individual batch of waste material for the presence of such constituents.

*where all data is clearly not suitable for the other substance these substances can be regarded as different (e.g. in case of very different physical properties which have essential impact on the hazard properties, like water solubility).”<sup>5</sup>*

It is also worth noting that the registration need not have been done by the same entity or within the same supply chain as the recovery; it is sufficient that someone has registered the substance earlier<sup>6</sup>.

### Safety information requirements

Article 2 (7)(d) provides that “the information required by Articles 31 or 32 relating to the substance that has been registered in accordance with Title II is available to the establishment undertaking the recovery”. How this information is obtained is not further specified in this provision. **Such information only needs to be available for substances.** Impurities are part of substances and the information does not therefore have to be available for the impurity on its own.

The Commission has invited the relevant industry associations, including CEPI, to produce a guidance document on writing Safety Data Sheets (SDS) or, where SDS is not required, providing other information on the safe use of recovered materials. An ad-hoc group called the Waste Recovery Industry Chain (WRIC) drafted a document that was presented to the relevant Commission services on 26 March 2009. The Commission welcomed the results and the document will be transformed into an ECHA guidance document later in 2009.

CEPI was taking part in the WRIC work; this information sheet is drafted according to the adopted guidance and will be published as an annex to the guidance document (without the Background) as some other waste stream specific annexes such as the one on metal scrap.

### Information, requirements and possibilities under REACH

Any actor in the supply chain shall comply with the duty to communicate information down and up the supply chain as required in Articles 32 and 34, and keep the information available according to Article 36 in the REACH regulation.

CEPI has initially asked the European associations for inks and adhesives suppliers for the information relevant to the issuing of this Safety Information Sheet. However the spirit of the REACH regulation is that every actor has a responsibility to inform the supply chain when new, relevant elements are identified or about new knowledge; in communicating such information in the supply chain, CEPI should be informed too so as to enable updates to the Safety Information Sheet.

In particular, these possibilities of accessing information will be used in monitoring the chemical safety of converted and printed products imported to EU.

<sup>5</sup> Guidance on registration, [http://reach.jrc.it/docs/guidance\\_document/registration\\_en.htm](http://reach.jrc.it/docs/guidance_document/registration_en.htm), p.37.

<sup>6</sup> It is worth noting that this exemption does not require that the substance has been registered by an actor in the same supply chain. Therefore, it is sufficient that a registration was filed for the substance, either by a registrant in the same supply chain or by a registrant in another supply chain. (European Commission CA/24/2008 rev.2)



## GENERIC SAFETY INFORMATION ON RECOVERED PAPER (04-2009)

### 1. Identification of the substance (on its own or in a mixture)

1.1 Recovered paper is used for manufacturing paper through a recycling process.

1.2 Without prejudice to paragraph 1.3, recovered paper complying with EN 643<sup>7</sup> grades consists of **cellulose pulp** with impurities<sup>8</sup>. Those impurities are not intentionally added for the recovery process; the only reason for their presence in the recovered material is that they were part of the input waste for the recovery process.

1.3 The following EN 643 grades are considered to be a mixture of cellulose pulp and **calcium carbonate**<sup>9</sup> with impurities: **2.08, 3.10 and 3.16**

(average share of CaCO<sub>3</sub> in those grades is 29%, 30% and 33% respectively)<sup>10</sup>.

#### 1.4 General information:

<b>EC#</b>	265-995-8
<b>CAS#</b>	65996-61-4
<b>Substance Name</b>	Pulp, cellulose (DE: Pulp, Cellulose-; ES: pasta, celulosa; FR: pâte de cellulose)
<b>Molecular Formula</b>	Not applicable
<b>Description:</b>	The fibrous substance obtained from the treatment of lignocellulosic substances (wood or other agricultural fiber sources) with one or more aqueous solutions of pulping and/or bleaching chemicals. Composed of cellulose, hemi-cellulose, lignin, and other minor components. The relative amounts of these components depend on the extent of the pulping and bleaching processes.
<b>EC#</b>	207-439-9
<b>CAS#</b>	471-34-1
<b>Substance Name</b>	Calcium Carbonate (DE: Calciumcarbonat; ES: carbonato de calcio; FR: carbonate de calcium)
<b>Molecular Formula</b>	CH <sub>2</sub> O <sub>3</sub> .Ca
<b>Description:</b>	Not available.

1.5. Cellulose pulp and natural calcium carbonate are listed in Annex IV of the REACH regulation and thus exempted from registration.

1.6. Precipitated calcium carbonate (PCC) is registered [registration number]

<sup>7</sup> European List of Standard Grades of Recovered Paper and Board EN 643.

<sup>8</sup> "Recovered paper may contain other constituents such as pigments, inks, glues, fillers, etc. Regarding the recovery and recycling process, constituents that have no specific function in the material (cellulose pulp) can therefore be considered as impurities." (European Commission, CA/24/2008 rev.2, 29 October 2008).

<sup>9</sup> An odourless, tasteless powder or crystal that occurs in nature as a common component in lithosphere. Precipitated calcium carbonate is similar to natural calcium carbonate. In the paper industry both are used as a filler and coating pigment.

<sup>10</sup> Characterisation based on a CEPI study by PTS, Germany, in November 2008. Such characterisation will be updated periodically.

## **2. Hazards identification**

2.1. Recovered paper does not meet the criteria for needing to produce a safety data sheet (SDS) as referred to in Article 31.1 and 31.3 of REACH Regulation.

2.2. The decision tree for assessing the need for a SDS is in the annex to this document.

2.3. Recovered paper is not subject to:

- a) any authorisation under Title VII;
- b) any restriction imposed under Title VIII; or
- c) any specific conditions under section 3 of Annex XI to the REACH regulation.

2.4. Collection of recovered paper and cleaning it by dry sorting are mechanical operations that do not cause chemical reactions; no new substances occur in nor are any substances added to recovered paper.

## **3. Other information for enabling appropriate risk management measures**

3.1. Recovered paper classified as secondary material under the Waste Directive is to be reprocessed through material recycling into new articles (products and materials). It shall not be used for energy recovery or be disposed of.

3.2. General and specific end-of-waste criteria, to be set under the Waste Directive, will include minimum purity and management requirements.

3.3. Prohibited sources of recovered paper listed in the Responsible Sourcing guidelines (CEPI 2007) and in Council of Europe Resolution AP (2002), Technical Annex 3:

- 1. Contaminated waste paper and board from hospitals;
- 2. Recovered paper and board which has been mixed with garbage and subsequently sorted out;
- 3. Used stained sacks which have contained, for example, chemicals and foodstuffs;
- 4. Covering materials, such as paper used for covering furniture during repair and painting work;
- 5. Batches mainly consisting of carbonless copy paper;
- 6. Waste paper from households containing used hygienic paper, such as used kitchen towels, handkerchiefs and facial tissue;
- 7. Old archives from libraries, offices, etc., if they contain PCBs.

3.4. Transport, handling and storage: See Responsible Sourcing and Quality Management of Recovered Paper guidelines<sup>11</sup> for additional environmental and work safety considerations. As a respiratory protective measure in dusty areas one is recommended to wear a dust protection mask (filter P1).

3.5. Any actor in the supply chain shall comply with the duty to communicate information down and up the supply chain as required in Articles 32 and 34, and keep the information available according to Article 36 in the REACH regulation.

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<sup>11</sup> [www.cepi.org](http://www.cepi.org)

**Validity**

This Information Sheet is valid as of 1 April 2009 until a new Information Sheet is issued (to be published at [www.cepi.org](http://www.cepi.org)) by 1 April 2011 at the latest. REACH is applicable to recovered paper as of the date<sup>12</sup> the recovered paper ceases to be waste.

**Disclaimer**

The purpose of this document is to provide guidance to businesses dealing with recovered paper. Please note that this document contains the views of CEPI aisbl only and cannot be regarded as the official position of any individual company. CEPI does not accept any liability with regards to the information provided in this or any subsequent amendment of this document.

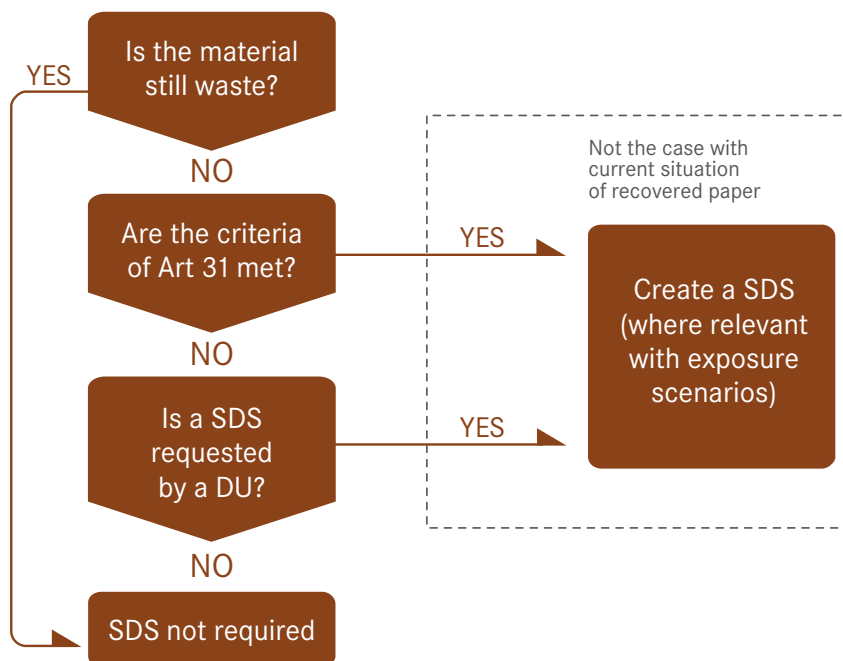
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<sup>12</sup> A Commission decision on the waste / non-waste status of recovered paper is expected in late 2009 or early 2010.

## ANNEX

### Decision tree for recovered paper

whether a Safety Data Sheet is required for recovered paper.



#### Legend:

SDS: Safety Data Sheet

DU: Downstream User

Art 31: Article 31 of the REACH regulation



This is a renewable, durable, re-usable and recyclable paper product - naturally supporting your ideas !

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