Common Position of the European Abrasive Industry on REACH (Regulation (EC) No. 1907/2006)

A. Position of the Abrasive Industry

I. "Classic Abrasive Products" (coated abrasives, non-woven abrasives, bonded abrasives, super-abrasives) are articles.
For special cases such as abrasive powders or pastes a case by case examination is necessary to decide whether these products are articles or preparations.

II. There is no intended release from abrasive articles.

B. Justification

1 *Introduction*

Abrasive products generally contain different substances. In the light of the new EU legislation on chemicals (REACH), there is a need to define whether abrasives are preparations or articles with or without intended release. These options, taken against the legal background, will have different impacts for manufacturers, importers and users of abrasives. This concerns duties under the EU REACH Regulation as well as under other legislative regimes. A definitive decision in which categories the different types of abrasives fit has not been made so far – neither at EU nor MS level.

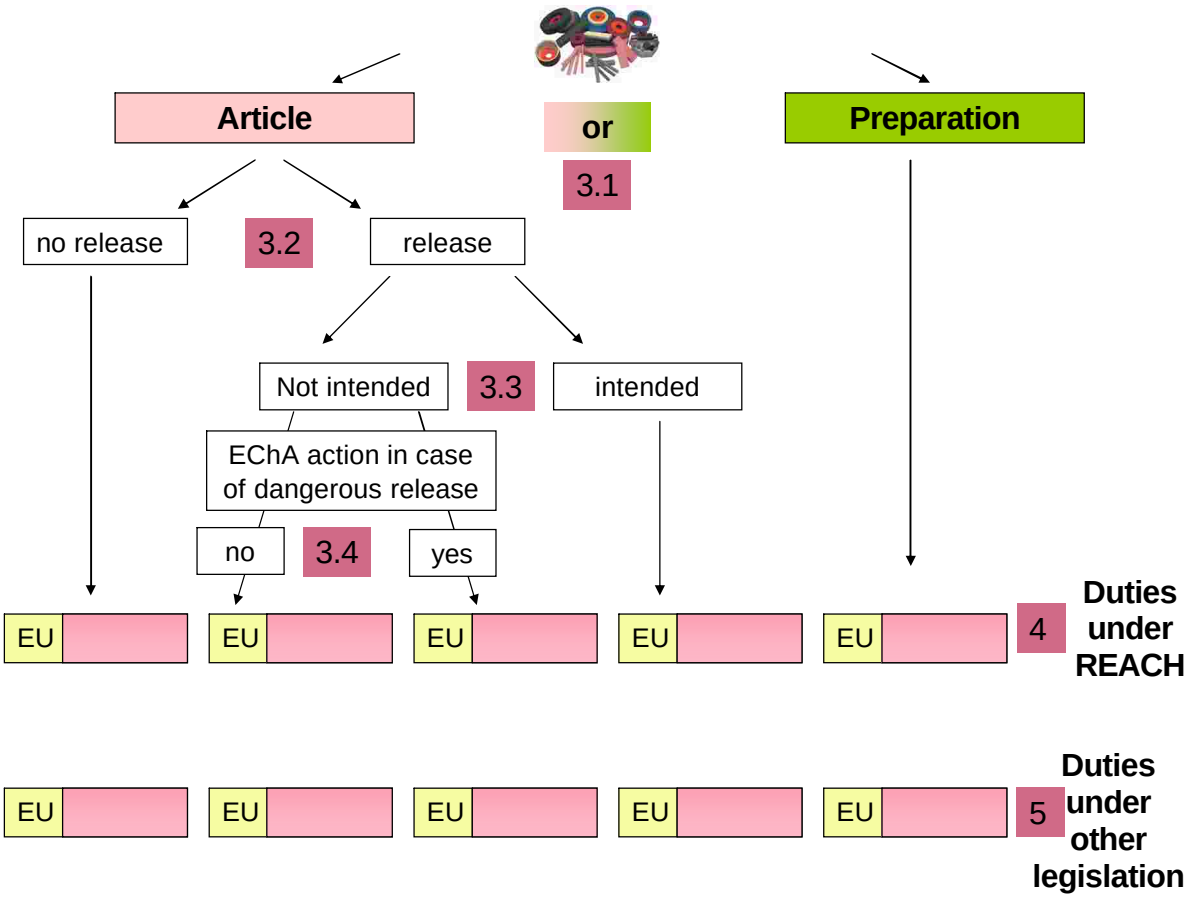
To justify the common position of the abrasive industry, this paper provides information on the legislative background and arguments for the classification of abrasive products.

In chapter 2 of this paper, the definitions of the possible categories that might apply for abrasive products within REACH are recounted.

In chapter 3, the elements of the definitions are further explained and the relevant questions are assessed as follows:

- Are abrasive products "preparations" or "articles" under REACH? (3.1)
- Is there any "release" from abrasive products? (3.2)
- If yes, is a release to be classified as being "intended"? (3.3)

Schematic of the systematic approach for the decision process.



2 *REACH definitions of the possible categories*

2.1 Articles

Definition

According to Article 3 subpara 3 of REACH Regulation (EC) Nr. 1907/2006, an article is defined as

> ”an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition”.

2.2 Preparations

Definition

According to Article 3 subpara 2,

> “*Preparation* means a mixture or solution composed of two or more substances”, a substance according to Article 3 subpara 1 being defined as “… a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition”.

2.3 (Intended) Release from an article

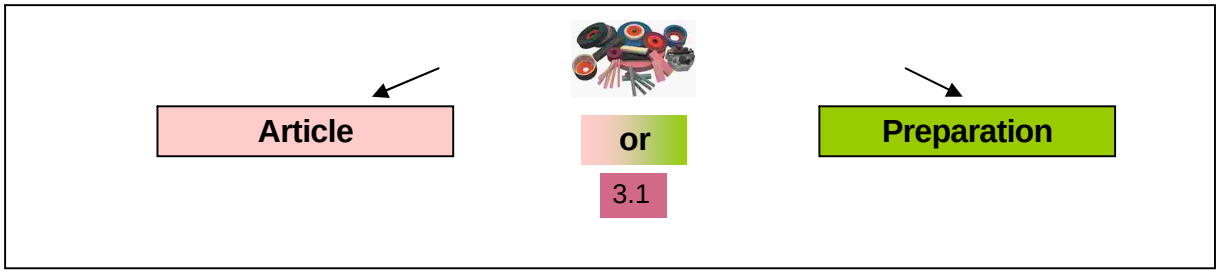
The notions “release” and “intended release” are not defined in the REACH Regulation but broadly in Draft RIP 3.8[1]. Examples within the Draft RIP 3.8 are given in situations where an intended release arises. Release generally is regarded as being intended if it provides the major function or an added value to the use of the article (for a more detailed analysis see chapter 3.3).

[1] REACH Implementation Project 3.8 prepared by the European Commission in co-operation with Member States, industry and other stakeholders

3 *Relevant questions for the assessment of obligations*

The method of this assessment follows the instruction as presented in the "Draft Technical Guidance Document on requirements for substances in articles" (Draft RIP 3.8). Although Draft RIP 3.8 does not provide binding rules, it will be most probably the reference document for legislative bodies, authorities and private stakeholders.

3.1 Are abrasive products articles or preparations?



Following the REACH definition "an article is an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition." An item can never be a preparation and an article at the same time.

Explanation

According to Draft RIP 3.8, the elements of this definition have to be understood as follows:

- The *function* of an object is determined by the purpose of its use ("Why is the object used?")
- The *shape* of an object is its two or three dimensional form (depth, width and height)
- *Surface* means the outmost layer of the object
- *Design* means the arrangement of the "elements of design" in such a way as to best accomplish a particular purpose

An article may be ready for final use but may also be combined with other articles as a complex article consistent of several sub-units e.g. as a computer or a car. Furthermore, the article may be further processed as e.g. aluminium alloy cast piece.

3.1.1 Categories of abrasives lacking "shape"

There are some special cases of abrasive products which might not meet the criteria of an article because they lack the required "shape" in the sense of the REACH definition as they do not have a two or three dimensional form. This might concern abrasives placed on the market in the form of pastes, powders or granulates.

For these special cases the statement of Draft RIP 3.8 is relevant, that "powders giving a specific shape, e.g. metallic powder to be used as a reinforcing material in an adhesive, should not be considered as articles". Such products as polishes therefore might be regarded as preparations.

3.1.2 Coated abrasives, bonded abrasives / super-abrasives

(a) *Special shape, surface or design which determines its function to a greater degree than does its chemical composition*

Coated Abrasives exist in the form of discs, sheets, belts, and in a variety of other shapes and forms depending on the application. The same product might be found in any of these forms depending on the stiffness or particular strength requirements needed for the particular application. Coated abrasives can be produced using a range of backings from thermoplastic materials, paper, fibre, cloths or combinations thereof.

Non-woven abrasives also exist in the form of discs, sheets, belts and in a variety of other shapes and form depending on the application.

Bonded abrasives can be of a variety of bonds including metal, inorganic and organic. In most cases bonded abrasives are shaped in the form of a wheel or disc. Super-abrasives can be of the same bonds as bonded abrasives.

The shape and particularly the surface of these objects are especially designed for the abrasive effect.

Conclusion: Shape and surface are essential for the use of abrasives.

Thus coated abrasives, non-woven abrasives, bonded abrasives and super abrasives are articles.

(b) Traditional comprehension

Draft RIP 3.8 confirms that the European Commission had no intention to change the current interpretation of substances and preparations vis-à-vis articles. That which has been currently regarded as an article under the former chemicals legislation should continue to be regarded as an article under REACH.

Although the former European legislation on chemicals does not contain the notion “article” in the sense as it is used in the REACH Regulation, this notion is not unknown to authorities and other stakeholders as it was included in the Commission’s Manual of Decision for implementation of the sixth and seventh Amendments to Directive 67/548/EEC on dangerous substances (Directives 79/831/EEC and 92/32/EEC) and in Annex II to the “Commission’s Guidance Document for the submission of substances for EINECS”.

The manual lists some borderline cases but does not include abrasives.

Conclusion: A traditional written comprehension thus does not exist. So far authorities, producers, FEPA and member associations always have regarded “classic abrasive products” as articles. This is a further argument why coated abrasives, bonded abrasives and super-abrasives are articles.

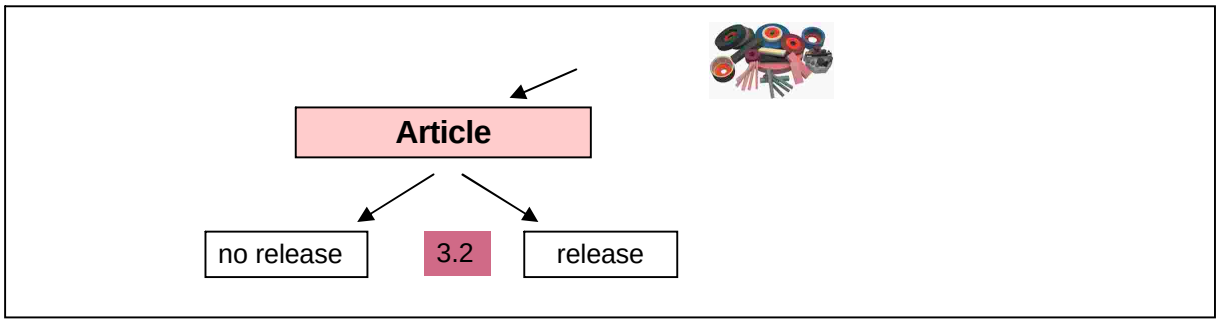
(c) Draft RIP guidance for “preparations in matrices”

Draft RIP 3.8 offers different approaches to assess whether a preparation bonded in a matrix is an article or a preparation according to REACH.

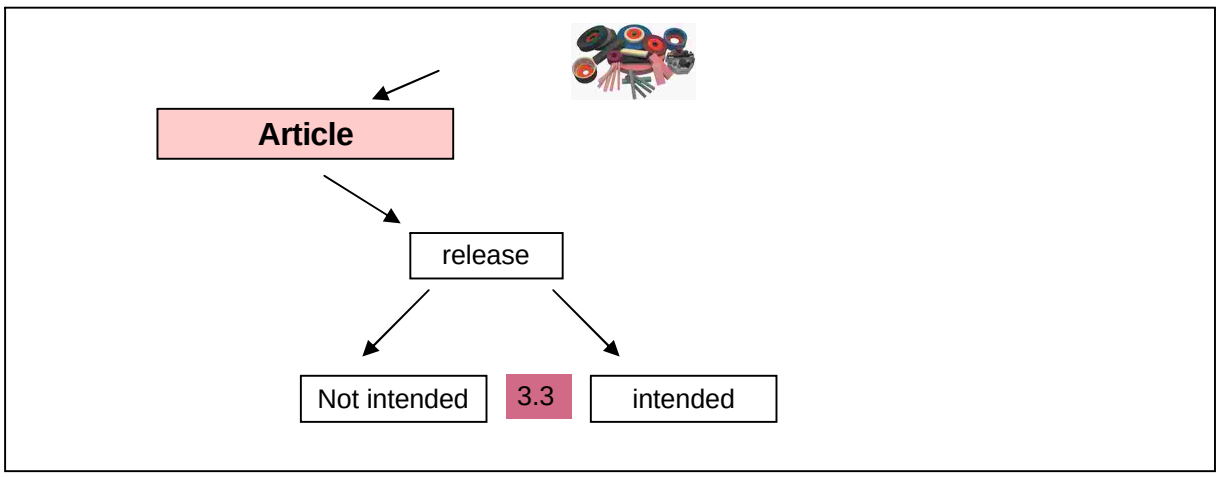
According to Draft RIP 3.8, if the matrix is designed especially for the end use function, the object is to be considered an article. Examples of transformation from preparation to article can be found on page 53 of Draft RIP 3.8. In this definition, final aluminium products after the process of being cut, formed or surface treated are always being classified as articles.

Conclusion: This further supports the conclusion that coated-, bonded- and super-abrasives would be classified as being articles rather than preparations.

3.2 Is there any "release" from abrasive products?



Abrasive products wear out during the useful life cycle. The abrasion process may lead to the release of one or more substances. Is the release to be classified as being intended under normal or foreseeable conditions of use?



3.2.1 Normal or reasonably foreseeable conditions of use

Normal condition of use means the conditions associated with the intended end use function.

Normal conditions of use may be deducible by common sense (imagining someone using the article as it is supposed to be used) or can be derived from user manuals or instructions for use.

As stated above, wear out occurs during the normal regular and foreseen use of abrasive products.

Reasonably foreseeable conditions of use mean conditions of use outside the use originally intended by the article producer (normal use) but which may be foreseen because of the form, shape or function of that article.

The following conditions are considered reasonably foreseeable:

- "Accidents" of high likelihood, e.g. breakage of a fragile container releasing all of the content (wording is dependent on the article definition). These are to be considered as worst-case situations.
- Uses not in accordance with the function but which can be anticipated because function and appearance of the article also suggests other uses than the intended ones
- Extremely intensive use (e.g. 'a consumer' working with a tool 12 hours a day for three months when building his own house)

Excluded from reasonably foreseeable conditions in situations of professional and industrial uses are:

- Uses, which are clearly and noticeably excluded by the article producer or importer. These uses are to be regarded as use deliberately against the intention.
- Uses, which have been clearly advised to be avoided by means of product design or warning labels.
- Clear misuse.

Within extreme use, there might be an enhanced release of substances from abrasives due to increased wear out.

Conclusion: Release from abrasive products may occur under normal and reasonably foreseeable conditions of use.

3.3.2 Intended release

A release of substances from articles is according to Draft RIP 3.8 intended when:

- The release is essential for the end use function of the article or vice versa, without the release of the substances, the article would not work sufficiently.

  The release contributes to a quality or minor function of the article, or, in other words the, release contributes to an 'added value' of the article, which is not directly connected to the end use function.

  Example: Intended release in this sense is: Release of perfume from a perfumed eraser (function = to erase, added value / function for convenience = quality to smell good)

A release is not considered to be an intended release in the following cases:

• A release occurs during removal of 'impurities' from a semi-finished or finished article during its production process (before marketing as a finished article).

Example: A size is added to a fabric to improve its processability. Sizes are released during further wet processing of the textile

• A release of substances formed during chemical reactions

Examples: Release of substances from articles catching fire and ozone released from copy machine

• A release occurs during use or maintenance of the article and is meant to improve the product quality in a wide sense or the safety as a side effect but the released substances do not contribute to the function of the article.

Example: Washing of clothes by the consumer where remnants of different chemicals (dye, softener, starch etc.) from processing are removed over some washing cycles

The release of substances during the abrasive process is neither necessary to fulfil its primary function nor does it provide any added value. The release of substances from abrasives occurs due to a wear process and thus due to the physical process of abrasion.

One could also argue that this physical process should be treated equally to the release of substance due to chemical reactions as explicitly named in Draft RIP 3.8.

Therefore this is not an intended release.

Further, many research and development activities aim at reducing releases. Bonds are designed in order to reduce releases as far as possible.

Conclusion: There is no intended release from abrasive products under normal or reasonably foreseeable conditions of use in the meaning of REACH.

4. Summary

Classic Abrasive Products" (coated abrasives, non-woven abrasives, bonded abrasives, super-abrasives) are articles.
For special cases such as abrasive powders or pastes a case by case examination is necessary to decide whether these products are articles or preparations.

There is no intended release from abrasive articles.