7 September 2012

CEPE position paper on the French decree and order on nanomaterials

The European Council of Paint, Printing Ink and Artists 'Colours (CEPE) represents the interests of approximately 900 companies in the European Union. Some 110.000 people are directly employed in this industry. The products find their use in a variety of applications and are sold to business clients or to consumers. Nanotechnology is of eminent importance as a driver of innovations for the development of coatings with significantly improved or entirely new properties. The coatings industry has already carried out a number of safety studies, but acknowledges that further assessment of the possible exposure to nanomaterials through additional studies is needed. This will ensure that nanotechnologies are developed in a safe and sustainable way.

On February, 19th 2012 the French Ministry of Ecology published its decree on the annual declaration of **substances with nanoparticle status**. In this text, a substance with nanoparticle status is defined as a *« substance (…) intentionally manufactured to a nanometric scale containing particles in an unbound state or as an aggregate or as an agglomerate where for a minimum amount of particles in the number size distribution, 1 or more external dimensions is in the size range 1nm-100nm »*. Furthermore, it is specified that a **substance with nanoparticle status contained in a mixture without being bound** is a *« substance with nanoparticle status intentionally incorporated in a mixture from which it is likely to be extracted or released under normal or reasonably foreseeable conditions of use».*

**Based on these definitions, the Paint, Printing Ink and Artists 'Colours Industry considers that their products do not fall into the scope of the French nano declaration** for the following reasons:

1. **Nanoparticles used in paints, printing inks and Artists 'Colours are bound either in a liquid matrix** (mixture before application**) or in a solid matrix** (final film after application and drying). By definition, the term "bound" includes all types of physical/chemical bonds (e.g. covalent, ionic, Van der Waals) which prevent any release of nanoparticles from such matrices.

2. **Nanoparticles used in paints, printing inks and Artists 'Colours are not likely to be extracted or released** (from the mixture or the final film) **under normal or reasonably foreseeable conditions of use.** Recent scientific studies[1,2] have proven that added nanoparticles are embedded in the matrix and that no release of these nanoparticles could be observed under high stress conditions (e.g. sanding, abrasion).
   Noteworthy, the paints, printing inks and Artists 'Colours industry does not add nanoparticles with the intention of being isolated or released.

3. The suppliers of polymer dispersion to the paints, printing inks and Artists 'Colours industry also consider **their products (which might contain polymer particles smaller than 100 nm), out of the scope of the declaration.**

[1] DECHEMA & VCI, *« 10 Years of Research : Risk Assessment, Human and Environment Toxicology of Nanomaterials »* **2011**.
[2] For selected articles, see : (a) Stintz, *M. Eur. Coating J*. **2011**, 29-34. (b) Wohlleben, W. *Small* **2011**. (c) Tardif, *F. J. Phys. : Conf. Ser.* **2011**, 304, 012062. (d) Koponen, I. K. J. Exp. Sci. Environ. Epi. **2011**, 21, 408-418. (e) Stintz, M. Ann. Occup. Hyg. **2010**, 54, 615-624. (f) Koponen, *I. K. J. Phys. : Conf. Ser*. **2009**, 151, 012048.