**Supplementary Product Examples for the Guidance Document from the Danish Environmental Protection Agency no. 5, 2014**

Based on the analytical results from the project "Release of nano-materials from ink and toner cartridges for printers", this memo presents a three supplementary product examples for the guidelines to the nano product register and the related Appendices.

The project has only included a small selection of ink and toner cartridges available on the Danish market. The tested ink and toner cartridges have been selected in cooperation with the Danish EPA.

In order to prepare text proposals covering all ink and toner cartridges, it is assumed that the products analysed in the project are representative of the product group.

As summarized in section 4.3 of the report, three main conclusions can be drawn based on the performed analysis and literature review:

1. Unlike the results of some previous studies, this project did not observe any release of solid nanoparticles from the laser printers tested with the experimental setup used.
2. No release of solid nanoparticles was measured for the tested inkjet printers. Additionally, the literature review did not identify any literature indicating release of nanoparticles from inkjet printers during the print process.
3. A significant release of nanomaterials was measured during the refilling process of one specific toner cartridge

Based on (1), (2) and (3), supplementary examples for the current guidelines for the Inventory of Nanoproducts will be presented in the following pages.

**Supplementary examples – paragraph 2.1 in the guideline**

The following examples are included in the table found in “7 Are nanomaterials released?”

* Toner cartridges for laser printers
* Ink cartridges for inkjet printers
* Toner for refilling toner cartridges

Appendix 2

Addition of three extra examples of products

**19 – Toner cartridges for laser printers**

*Example of product*

You are an importer of toner cartridges for laser printers.

*Considerations*

Because your product is marketed to private consumers (Figure 2 item 1), and because your product is not covered by other regulations concerning nanoproducts (Figure 2 item 2), your product is covered by the Statutory Order on the Inventory of Nanoproducts. You therefore have to determine whether your product contains nanomaterials that cause your product to be covered by the obligation to report, and you should move on to Figure 3 in these guidelines.

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| Picture 1 |

**Item 3.** After having been in contact with your supplier, you have ascertained that the product contains nano-sized pigments. The supplier also informed you that your product does not contain any other nanomaterials, and therefore you should continue to the next item.

**Item 4.** Because your product does not fall within any of the mentioned product groups, you should continue to the next item.

**Item 5.** The pigments used have been purified and subsequently processed and are therefore not a naturally occurring material.

**Item 6.** The pigments used are assessed to have been intentionally manufactured at nanoscale in order to enhance their colour effect.

**Item 7.** Based on a series of conducted studies it cannot be uniquely determined if the added nanomaterial is released during reasonably foreseeable use of the product.

As an importer/manufacturer, it is your duty to assess whether the added nanomaterial could be released from your product during reasonably foreseeable use. If you assess that nanomaterial is not released during reasonable foreseeable use, you need **not** report your product to the Inventory of Nanoproducts, and therefore you do not need to do anything further. However, if you assess that nanomaterial is released during reasonably foreseeable use, your product **must be reported** to the Inventory of Nanoproducts. Read more about how to obtain and manage the information, and how to report it in Chapter 3.

**20 –Ink cartridges for inkjet printers**

*Example of product*

You are an importer of ink cartridges for inkjet printers.

*Considerations*

Because your product is marketed to private consumers (Figure 2 item 1), and because your product is not covered by other regulations concerning nanoproducts (Figure 2 item 2), your product is covered by the Statutory Order on the Inventory of Nanoproducts. You therefore have to determine whether your product contains nanomaterials that cause your product to be covered by the obligation to report, and you should move on to Figure 3 in these guidelines.

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|  |
| Picture 2 |

**Item 3.** After having been in contact with your supplier, you have ascertained that the product contains nano-sized pigments. The supplier also informed you that your product does not contain any other nanomaterials, and therefore you should continue to the next item.

**Item 4.** Because your product does not fall within any of the mentioned product groups, you should continue to the next item.

**Item 5.** The pigments used have been purified and subsequently processed and are therefore not a naturally occurring material.

**Item 6.** The pigments used are assessed to have been intentionally manufactured at nanoscale in order to enhance their colour effect.

**Item 7.** You assess that the newest research on release of nanomaterials during use of inkjet printer cartridges show that nanomaterial is no released from the cartridges (as per August 2015, reference is made to the report when published).

For this reason, you need **not** report your product to the Inventory of Nanoproducts, and therefore you do not need to do anything further.

**21 – Toner for refilling a toner cartridge**

*Example of product*

You are an importer of a toner for refilling original and unoriginal toner cartridges

*Considerations*

Because your product is marketed to private consumers (Figure 2 item 1), and because your product is not covered by other regulations concerning nanoproducts (Figure 2 item 2), your product is covered by the Statutory Order on the Inventory of Nanoproducts. You therefore have to determine whether your product contains nanomaterials that cause your product to be covered by the obligation to report, and you should move on to Figure 3 in these guidelines.

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| Picture 3 |

**Item 3.** After having been in contact with your supplier, you have ascertained that the product contains nano-sized pigments. The supplier also informed you that your product does not contain any other nanomaterials, and therefore you should continue to the next item.

**Item 4.** Because your product does not fall within any of the mentioned product groups, you should continue to the next item.

**Item 5.** The pigments used have been purified and subsequently processed and are therefore not a naturally occurring material.

**Item 6.** The pigments used are assessed to have been intentionally manufactured at nanoscale in order to enhance their colour effect.

**Item 7.** Scientific studies have demonstrated that during the process of refilling a toner cartridges with toner powder, nanomaterial is released (reference will be added when the report is published).

For this reason, your product **must be reported** to the Inventory of Nanoproducts. Read about how to obtain and manage information and how to report it in Chapter 3.

**Text motion – Appendix 5**

Addition of ink and toner cartridges in the article ”Products containing colour”.