

# Market survey on articles treated with biocides

PM 6/16



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## Preface

In September 2013 the new Biocidal Products Regulation EU No 528/2012 came into force. This regulation, which is binding for all European Member States, contains for the first time provisions for articles treated with biocides. Such articles, when placed on the market, have to be treated with an active substance authorised for the relevant use. Furthermore, treated articles have to be labelled in certain cases and consumers have been given the right to know whether a treated article contains a biocide and in that case which.

The definition of treated articles in the Biocidal Products Regulation is not easy to understand and differs from the definition of articles in REACH<sup>1</sup>. Thus, the borderline between biocidal products and treated articles is difficult to find, which makes it complicated to apply the rules on treated articles correctly. Two years after the new legislation has come into force, we wanted to know how the new rules on treated articles are complied with and how market participants behave. Furthermore, we wanted to know whether there is consensus amongst European Member States how to define a treated article. Therefore, we conducted a market survey to examine which goods treated with biocides are to be found on the market, which of them are to be considered treated articles, and whether the rules concerning labelling are followed. At the same time, we tried to get an overview which biocide treated goods are to be considered biocidal products and which are out of scope of the biocides legislation.

The survey was conducted by Pia Brunn Poulsen, Daniela Bach and Anders Schmidt, FORCE Technology with Ulrike Frank as project supervisor from the Swedish Chemicals Agency. The survey was carried out from September 15 to December 15, 2015. This report documents the results of the survey.

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<sup>1</sup> Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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## Summary

Biocides are products used to prevent harmful organisms from causing adverse effects on humans, products, animals or the environment. Biocides are being used to treat a wide range of everyday products. This survey aims to illustrate which biocide treated goods are available on the consumer market. Furthermore, a review of how the labelling requirements of the Biocidal Products Regulation (BPR<sup>2</sup>) are followed is carried out, and how the information rights for consumers the BPR foresees are complied with. Finally, it has been assessed where Member States' competent authorities draw the line between biocidal products and treated articles.

In this survey we use three different terms, two of them are defined in the biocidal products regulation:

**Biocidal products**<sup>3</sup> are any substances and mixtures with a biocidal function. Articles with a primary biocidal function are also considered to be biocidal products (that is, the requirements concerning biocidal products apply to them, including the requirement for a product authorisation).

**Treated articles**<sup>4</sup>, if they are not biocidal products, are either:

- A. Mixtures or articles which contain biocides with the purpose of protecting the material, e.g. from growth of bacteria or fungi. These treated articles are typically sold without biocidal claim and are chemical products such as paints, detergents etc., or articles made of treated wood, treated paper, etc. where a biocide is needed to prevent biodeterioration during shelf-life or service-life. These treated articles typically contain active substances belonging to the group "Preservatives". However, these types of goods are considered to be biocidal products if the product is a mixture and a claim is made.
- B. Articles treated with disinfectants, insecticides or repellents – typically with a claim. These products claim to have properties such as "antibacterial" or "insect repellent". The purpose of these articles is to protect humans or animals against the effects of pests. These treated articles typically contain active substances belonging to main group 1 "Disinfectants" or main group 3 "Pest control". However, these types of treated articles can also be considered to be biocidal products depending whether the biocidal function is the main function of the article.

'**Treated goods**' is used in this survey for any substances, mixtures or articles that at some point of their life cycle have been treated with biocides. We use the term if we include both, biocidal products and treated articles, or when we do not know under which definition a specific product falls, or even if a product is out of scope of the biocides legislation.

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<sup>2</sup> Regulation (EU) No 258/2012 concerning the making available on the market and use of biocidal products (EU2. 2014)

<sup>3</sup> A biocidal product is defined in Art. 3.1 (a) BPR

<sup>4</sup> A treated articles is defined in Art. 3.1 (a) and (l) as opposed to "articles" as defined in REACH (<https://echa.europa.eu/regulations/reach/legislation>) Article 3(3), where form is more important than chemical composition.

In a survey, goods belonging to group A and B have been identified. The treated articles and biocidal products belonging to group B were easily identified on the internet by their claim. In contrast, the use of preservatives in treated goods belonging to group A is normally not highlighted – with some exemptions like odour-reduction of textiles or wood preservation. Consequently, an attempt has been made to identify products or categories of products in group A through producers of preservatives and through searches in the Swedish Product Register. For the latter, it was determined which of the active substances listed in the ECHA Biocidal Active Substances Database<sup>5</sup> were contained in products registered in the Swedish Product Register. The chemical products containing these substances were regarded – with some exemptions – belonging to group A.

The market survey clearly illustrates that the number of biocide treated goods on the consumer market is huge. Different types of chemical products containing preservatives were identified. In contrast, articles which contain preservatives and make no biocidal claim, could not be identified systematically. However, an abundance of treated articles with a claim was found; they represent a large variety of consumer products, such as sanitary products, electronic products, kitchen utensils, textile products, leisure equipment, home products, baby products, pet accessories etc. This has also been demonstrated in earlier Swedish and German studies. The results of the market survey on the internet, the search in the product register and of the responses to questions posed to the producers of preservatives are further discussed in chapter 4.

In a further part of this study, an assessment of compliance with the labelling requirements<sup>6</sup> was performed. It was investigated how 66 different articles with a claim were labelled. Only for about 18% of the identified treated articles information about the active substances used was available – however, the information was not complete: Even for these treated articles only the type of active substance and not the chemical name was given. In all cases, all other necessary labelling information as defined in the BPR was missing. This is discussed in chapter 5.

In a third part of the study (chapter 6), an assessment of compliance with the consumer information rights as stipulated in the BPR<sup>7</sup> has been carried out. They include that the supplier of a treated article shall, on request, provide the consumer with information on the biocidal treatment within 45 days. The suppliers of 45 different articles were contacted in order to test whether the information was provided. 64% of the suppliers replied to the request, but only 29% in total replied with a description of the biocidal treatment as required by the BPR. This illustrates that the majority of the suppliers of treated articles either do not have the knowledge necessary to inform customers, or they are altogether unaware of their information duties.

A fourth part of the study (chapter 7) investigated how the borderline between treated articles and biocidal products was drawn by the competent authorities of EU Member States. A selection of borderline cases was sent to all 28 Member States plus Norway and Switzerland in order to get their evaluation of the biocide treated goods. Nine Countries answered. The differences in their responses emphasize that the definition of treated articles in the biocidal products regulation is subject to interpretation. There is a wide range of opinions whether the biocidal function of a product is primary or not. Furthermore, countries are not consistent

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<sup>5</sup> <http://echa.europa.eu/web/guest/information-on-chemicals/biocidal-active-substances>

<sup>6</sup> See Art. 58(3) BPR

<sup>7</sup> See Art. 58(5) BPR

about whether liquids and mixtures with a biocidal function are regarded as biocidal products or treated articles. In conclusion, there is a need for better guidelines and clearer rules in this area.

## Sammanfattning

Biocidprodukter används för att förhindra att skadliga organismer orsakar ogynnsamma effekter på människor, produkter, djur eller miljön. Biocider används för att behandla många olika sorters vardagsprodukter. Denna studie visar vilka biocidbehandlade produkter som är tillgängliga på konsumentmarknaden. Den ger också en översikt av hur märkningskraven i Biocidproduktförordningen (BPR<sup>8</sup>) efterföljs, och hur regeln om information till konsument efterlevs. Till sist utvärderar vi hur behöriga myndigheter i EU:s medlemsländer skiljer på *biocidprodukter* och *behandlade varor*.

I den här studien använder vi tre olika begrepp, de två första är definierade i biocidproduktförordningen. Vi använder även ett tredje begrepp, som inte är definierad i BPR: Behandlade produkter.

**Biocidprodukter**<sup>9</sup> är alla de kemiska ämnen och blandningar som har en biocidfunktion. Även varor (dvs sådana produkter som inte enbart är ett kemiskt ämne eller en kemisk blandning) kan anses vara biocidprodukter om deras främsta funktion är en biocidfunktion. Reglerna för biocidprodukter gäller alltså även för sådana varor, de kräver till exempel tillstånd.

**Behandlade varor**<sup>10</sup> (om de inte är biocidprodukter) kan vara:

- A. Blandningar eller varor, som innehåller biocider för att skydda materialet, till exempel från bakterieväxt eller mögel. Dessa behandlade varor säljs oftast utan något påstående om att varan har biocidegenskaper. Det kan vara kemiska produkter som färg och rengöringsmedel eller varor som är gjorda av behandlat virke eller behandlat papper. Gemensamt för dessa varor är att biocider används för att förhindra biologisk försämring vid lagring eller användning. Dessa behandlade varor innehåller aktiva ämnen som tillhör gruppen ”Konserveringsmedel”. Observera dock: Om produkten i frågan är en kemisk blandning och om det tillsammans med produkten finns ett påstående om att varan har biocidegenskaper, klassificeras den som en biocidprodukt.
- B. Varor behandlade med desinfektionsmedel, insekticider eller insektsavskräckande medel. Sådana varor säljs vanligen med ett påstående om att de har biocidegenskaper. Information om varan hävdar ofta att den har ”antibakteriella”, ”repellerande” eller liknande egenskaper. Syftet med dessa varor är att skydda människor och djur mot skadeorganismer. Observera dock: Om huvudsyfte med denna typ av produkt är biocidfunktionen, klassificeras den som en biocidprodukt.

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<sup>8</sup> Förordning (EU) No 258/2012 om tillhandahållande på marknaden och användning av biocidprodukter (EU2. 2014)

<sup>9</sup> En biocidprodukt är definierad i Art. 3.1 (a) BPR

<sup>10</sup> En behandlad vara är definierad i Art. 3.1 (a) och (l) BPR och är inte samma sak som en vara så som den är definierad i REACH (<https://echa.europa.eu/regulations/reach/legislation>) artikel 3(3) , där formen är viktigare än kemisk sammansättning.

**Behandlade produkter** använder vi i denna undersökning när vi talar om både biocidprodukter och behandlade varor. Vi använder detta begrepp också när vi inte vet vilken kategori produkten i fråga tillhör, eller om produkten över huvud taget faller under biocidlagstiftningen. Vi har i en marknadsundersökning identifierat varor som tillhör grupp A och B. Behandlade varor i grupp B och biocidprodukter var lättast att identifiera på internet, eftersom de påstås ha biocidegenskaper. Däremot framhävs sällan att biocider används i behandlade produkter som tillhör grupp A. Det finns några undantag, till exempel vid antiluktbehandling av textilier och vid behandling av virke. Därför har produkter och produktkategorier i grupp A identifierats genom förfrågningar hos tillverkare av konserveringsmedel och sökningar i det svenska produktregistret. För det sistnämnda undersökte vi vilka av de ämnen som är listade i Echas databas med verksamma ämnen<sup>11</sup> som var registrerade i produkter i det svenska produktregistret. De kemiska produkter som innehåller dessa substanser ansågs tillhöra grupp A, med få undantag.

Marknadsundersökningen visar tydligt att det finns ett enormt antal biocidbehandlade produkter på konsumentmarknaden. Många typer av kemiska produkter som innehåller konserveringsmedel identifierades. Varor utan påstående om biocidegenskaper (som innehåller konserveringsmedel), kunde däremot inte identifieras systematiskt. Däremot har många behandlade varor som säljs med påståenden om biocidegenskaper identifierats. Det är bland annat sanitetsprodukter, elektronikprodukter, köksutrustning, textilprodukter, fritidsutrustning, produkter till hemmet, babyprodukter, produkter till djur osv. Detta har tidigare visats i både svenska och tyska undersökningar. Resultaten av marknadsundersökningen på nätet, sökningen i produktregistret och svar på frågor till tillverkare av konserveringsmedel diskuteras vidare i kapitel 4.

I den andra delen av studien utvärderar vi hur kraven på märkning uppfylls. Märkningen av 66 olika varor som påstås ha biocidegenskaper undersöktes. Endast 18 procent av de varor som påstods ha biocidegenskaper hade medföljande information om vilka aktiva ämnen som använts för att ge varan dess biocidegenskaper. Informationen var dock inte fullständig. Endast typen av aktiv substans angavs och inte det kemiska namnet. Ingen av varorna var märkt med all den information som krävs enligt biocidproduktförordningen (BPR)<sup>12</sup>. Detta diskuteras i kapitel 5.

I den tredje delen av studien (kapitel 6), granskade vi hur reglerna för konsumenters rätt till information följs. Reglerna finns angivna i biocidproduktförordningen (BPR)<sup>13</sup> och innebär att en konsument som begär att få veta om en vara är biocidbehandlad och vilket ämne den innehåller ska få veta det inom 45 dagar. Vi kontaktade producenterna till 45 av varorna för att undersöka om de kunde tillhandahålla informationen som biocidproduktförordningen (BPR) kräver. 64 procent av producenterna svarade på förfrågan, men bara 29 procent svarade med en beskrivning av biocidbehandlingen som BPR kräver. Detta visar att majoriteten av producenterna av biocidbehandlade varor antingen inte har den nödvändiga kunskapen för att informera kunderna, eller att de är ovetande om sina informationsskyldigheter.

I den fjärde delen av studien (kapitel 7) undersökte vi hur gränsdragningen mellan *behandlade varor* och *biocidprodukter* görs av de behöriga myndigheterna i EU:s medlemsländer. Ett urval av exempel för gränsdragning skickades till alla 28 medlemsländer

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<sup>11</sup> <http://echa.europa.eu/web/guest/information-on-chemicals/biocidal-active-substances>

<sup>12</sup> Se Art. 58(3) BPR

<sup>13</sup> Se Art. 58(5) BPR

plus Norge och Schweiz. Vår förhoppning var att få deras bedömning av om exemplen var biocidbehandlade varor eller biocidprodukter. Nio länder svarade. Skillnaderna i deras svar visar att definitionen av behandlade varor i biocidförordningen kan tolkas på olika sätt. Det finns skilda meningar om biocidfunktionen hos en vara är den primära funktionen eller inte. Länderna är inte heller eniga om vätskor och blandningar med biocidfunktioner ska betraktas som biocidprodukter eller biocidbehandlade varor. Slutsatsen av undersökningen visar att det behövs bättre vägledning och tydligare regler på detta område.

# 1 Introduction

The Swedish Chemicals Agency has decided to perform this survey of biocide treated articles as part of their “Action plan for a toxic-free everyday environment 2015 – 2020” (Swedish Chemicals Agency 2014).

Biocides are substances that may be dangerous to both health and the environment, and the number of biocide treated goods<sup>14</sup> on the global market is huge. According to the action plan, the goal is to continue the work on reducing the unnecessary use of biocides.

## 1.1 Background

Since the biocidal products regulation (BPR) (EU) No. 528/2012 entered into force, requirements for articles treated with biocides apply. “Treated article” means any substance, mixture or article which has been treated with, or intentionally incorporates, one or more biocidal products. Such articles may only contain active substances, which are approved for the product type (PT) and the use in question (with a certain transitional period). Furthermore, when a biocidal claim is made for the article (i.e. the article is claimed to have a biocidal effect like e.g. an antibacterial computer keyboard), it has to be labelled according to Article 58 (3) of the BPR. The labelling shall at least include a statement that the treated article incorporates biocidal products as well as the name of the active biocidal substance(s).

According to the BPR, a treated article that has a primary biocidal function shall be considered a biocidal product (Art. 3(1)(a)). As “primary biocidal function” is not further defined in the BPR, the distinction between primary and secondary function is subject to interpretation. Market participants and authorities have not yet agreed in their understanding of this term. Even the Biocidal Products Committee (BPC) has not been clear what they consider a treated article when labelling requirements or restrictions for certain uses of the active substances in treated articles were discussed. As the distinction between treated article and biocidal product can be quite complicated, the term **treated goods** is used in this survey whenever both treated articles and biocidal products are included, or when it is unclear how a particular product is defined.

Understanding of what is regarded as a treated article and knowledge about which treated goods (i.e. treated articles or biocidal products) exist on the market is limited. To get a better understanding of this, the Swedish Chemicals Agency has initiated this project. Furthermore, it should be studied how the rules and requirements of the BPR are interpreted and complied with by the actors on the market (Swedish Chemicals Agency 2015).

Various other studies illustrate that the number of biocide treated goods on the European market is huge (Smolka and Bradish 2013), (Swedish Chemical Agency 2012). In spite of this, the general knowledge use of active substances in treated articles is poor (Swedish Chemical Agency 2012), (Smolka and Bradish 2013), (Strehlenert, et al. 2013), (Swedish Chemicals Agency 2015).

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<sup>14</sup> In case it is unclear whether a product fulfils the definition of a treated article or of a biocidal product or neither of them, or if all products containing a biocide are addressed, the term goods is used in this survey.

## 1.2 Purpose

The purpose of this project is to:

- a. Give an overview of the market of goods treated with biocides.
- b. Examine whether market participants consider certain goods as biocidal products or as treated articles.

The focus will be on goods which have significance for consumers, either because they are available to them or because they are in contact with them during use.

The survey examines two different groups of goods:

- A. Substances, mixtures or articles which contain preservatives with the purpose of protecting the material, e.g. from growth of bacteria or fungi. These treated articles are typically sold without biocidal claim and are chemical products such as paints, detergents etc. or articles like treated wood, treated paper, etc. where a preservative is needed to prevent bioteterioration during shelf-life or service-life. These treated articles typically contain active substances belonging to main group 2 “Preservatives”. Depending on whether a claim is made or not, these types of goods can be biocidal products.
- B. Articles treated with disinfectants or insecticides – typically with a claim. These products claim to have properties such as “antibacterial” or “insect repellent”. The purpose of these articles is to protect humans or animals against the effects of pests. These treated articles typically contain active substances belonging to main group 1 “Disinfectants” or main group 3 “Pest control”. Depending whether the biocidal function is primary or not, these types of treated articles can be biocidal products.

For group A, the purpose is to create an overview that clarifies which types of goods are found on the market and where the borderline to biocidal products is drawn by the companies placing the goods on the market.

For group B, the purpose is to create an overview of the products available on the market and to establish whether they comply with the labelling requirements of the BPR and where the borderline to biocidal products is drawn by the companies placing the goods on the market.

Furthermore, this report will examine whether competent authorities of different Member States consider certain goods as biocidal products or as treated articles. Finally, the compliance with the right to information shall be studied, i.e. that the suppliers of the treated articles shall provide the consumer upon request with information on the biocidal treatment of the treated article within 45 days of the request (BPR, Art. 58(5)).

## 1.3 Scope and limitations

In this project, examples of treated goods both with and without a biocidal claim have been identified and listed by product type (PT<sup>15</sup>) of the biocidal product they contain. The amount of examples identified is limited by the fact that no official registers exist for treated goods (Smolka and Bradish 2013); the examples listed are therefore examples that have been identified within the frames of this project.

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<sup>15</sup> See definition of the different product types in chapter 2.2 “Product types”.

Furthermore, the scope of this project has been on treated goods and not on clearly defined biocidal products such as disinfectants, rodenticides or insecticides. This automatically implies that not all product type (PT) groups will be dealt with as detailed as other groups, simply because treated goods primarily fall under PTs 2-10, 13, 18 and 19.

One major limitation of this study has been that it is difficult to identify treated goods belonging to group A, i.e. the goods, which are treated with preservatives. Such goods are usually not sold with any biocidal claim, and this makes them more difficult to identify in an internet search (which has been the main method used for identifying product examples). For this reason another way of identifying goods belonging to group A was adopted. This is described further in chapter 3.1.7 “Contact to producers/manufacturers of preservatives”.

## 2 Biocidal products regulation (BPR)

The biocidal products regulation No. (EU) 528/2012 entered into force September 1, 2013, replacing the old biocidal products directive. The principles of the old directive have been kept. All companies that make available on the market biocidal products (BP) must ensure that the products are authorised by the appropriate authority in an EU country or by ECHA. In the current transitional period where all existing active substances are being re-evaluated, BP are exempted from the authorisation requirements as long as a decision on the active substance has not been taken. In line with the active substances being approved for use in the EU, the companies must apply for authorisation of biocidal products containing these active substances (Art. 89 of the BPR). However, the BPR has widened its scope as treated articles are now included in the legislation, whereas in the former biocidal products directive only BP were regulated (EU, Directive 98/8 2013).

### 2.1 Definition of biocidal products and treated articles

Now, the BPR applies to biocidal products and treated articles.

For ‘**biocidal products (BP)**’ the following definitions apply:

- *any substance or mixture, in the form in which it is supplied to the user, consisting of, containing or generating one or more active substances, with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action,*
- *any substance or mixture, generated from substances or mixtures which do not themselves fall under the first indent, to be used with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action (Art. 3(1)(a)).*

A ‘**treated article**’ is defined as:

- *any substance, mixture or article which has been treated with, or intentionally incorporates, one or more biocidal products (Art. 3(1)(a)).*

However,

*A ‘treated article’ that has a primary biocidal function shall be considered a biocidal product. (Art. 3(1)(a))*

It is important to notice that a BP requires an authorisation, whereas a treated article only requires:

1. labelling, but only in the cases where a claim is made or where labelling is part of the active substance approval (Art. 58(3)),
2. that the active substance being used has been approved (or is under review) for that PT and use (Art. 58(2)).

This definition of a treated article is different from the definition of articles under REACH<sup>16</sup>, as treated articles under the BPR can be substances, mixtures or articles, whereas substances and mixtures are not considered to be articles under REACH.

An example of a biocidal product is a wood preservative, which is manufactured to protect the wood. However, a wall paint that contains a biocidal product (a preservative), which is added to preserve the paint during shelf-life, is considered to be a treated article, as the primary function of the wall paint is to decorate the painted walls (EU1 2014).

### **2.1.1 Treated articles with a primary biocidal function**

The borderline between articles with a “primary” and “secondary” biocidal function is difficult to draw.

The term ‘primary biocidal function’ is not defined in the BPR. Therefore, the European Commission has prepared a “Note for guidance” regarding interpretation of this aspect in the BPR (EU1 2014). It elaborates: “A ‘treated article with a primary biocidal function’ is thus a treated article that has one or more functions, of which one is a biocidal function that is of first rank, importance, or value compared to the other functions of the treated article.” (EU1 2014) (answer to question no. 10). Though there are different examples listed, the “Note for guidance” still gives room for interpretation.

## **2.2 Product types**

Biocidal products are classified into 22 biocidal product types (PT), which are defined in Annex V of the BPR:

1. Disinfectants
2. Preservatives
3. Pest control
4. Other biocidal products

The product types are important for defining the purpose of the biocidal treatment. Furthermore, approvals of active substances and authorisations for biocidal product apply only for the product type named in the decision. This is even true for the use of the active substance in a treated article. An active substance approved for PT 7 can as an example not be used for treatment of articles with a claim for health protection.

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<sup>16</sup> According to REACH 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” (EU, Reg. 1907/2006 2006). An article according to the REACH definition is therefore neither a chemical substance or a chemical mixture, but e.g. clothing or a toothbrush.

Table 1: List of product types as defined in Annex V of the BPR (ECHA, Biocidal Products Regulation - Product-types 2015)

Number	Product type (PT)	Description
<b>Main group 1: Disinfectants</b>		
These product types exclude cleaning products that are not intended to have a biocidal effect, including washing liquids, powders and similar products.		
PT 1	Human hygiene	Products in this group are biocidal products used for human hygiene purposes, applied on or in contact with human skin or scalps for the primary purpose of disinfecting the skin or scalp.
PT 2	Disinfectants and algacides not intended for direct application to humans or animals	Used for the disinfection of surfaces, materials, equipment and furniture which are not used for direct contact with food or feeding stuffs. Usage areas include, inter alia, swimming pools, aquariums, bathing and other waters; air conditioning systems; and walls and floors in private, public, and industrial areas and in other areas for professional activities. Used for disinfection of air, water not used for human or animal consumption, chemical toilets, waste water, hospital waste and soil. Used as algacides for treatment of swimming pools, aquariums and other waters and for remedial treatment of construction materials. Used to be incorporated in textiles, tissues, masks, paints and other articles or materials with the purpose of producing treated articles with disinfecting properties.
PT 3	Veterinary hygiene	Used for veterinary hygiene purposes such as disinfectants, disinfecting soaps, oral or corporal hygiene products or with anti-microbial function. Used to disinfect the materials and surfaces associated with the housing or transportation of animals.
PT 4	Food and feed area	Used for the disinfection of equipment, containers, consumption utensils, surfaces or pipework associated with the production, transport, storage or consumption of food or feed (including drinking water) for humans and animals. Used to impregnate materials which may enter into contact with food.
PT 5	Drinking water	Used for the disinfection of drinking water for both humans and animals.
<b>Main group 2: Preservatives</b>		
Unless otherwise stated these product-types include only products to prevent microbial and algal development.		
PT 6	Preservatives for products during storage	Used for the preservation of manufactured products, other than foodstuffs, feeding stuffs, cosmetics or medicinal products or medical devices by the control of microbial deterioration to ensure their shelf life. Used as preservatives for the storage or use of rodenticide, insecticide or other baits.
PT 7	Film preservatives	Used for the preservation of films or coatings by the control of microbial deterioration or algal growth in order to protect the initial properties of the surface of materials or objects such as paints, plastics, sealants, wall adhesives, binders, papers, art works.
PT 8	Wood preservatives	Used for the preservation of wood, from and including the saw-mill stage, or wood products by the control of wood-destroying or wood-disfiguring organisms, including insects. This product type includes both preventive and curative products.
PT 9	Fibre, leather, rubber and polymerised materials preservatives	Used for the preservation of fibrous or polymerised materials, such as leather, rubber or paper or textile products by the control of microbiological deterioration.

Number	Product type (PT)	Description
		This product-type includes biocidal products which antagonise the settlement of micro-organisms on the surface of materials and therefore hamper or prevent the development of odour and/or offer other kinds of benefits.
PT 10	Construction material preservatives	Used for the preservation of masonry, composite materials, or other construction materials other than wood by the control of microbiological and algal attack.
PT 11	Preservatives for liquid-cooling and processing systems	Used for the preservation of water or other liquids used in cooling and processing systems by the control of harmful organisms such as microbes, algae and mussels. Products used for the disinfection of drinking water or of water for swimming pools are not included in this product-type.
PT 12	Slimicides	Used for the prevention or control of slime growth on materials, equipment and structures, used in industrial processes, e.g. on wood and paper pulp, porous sand strata in oil extraction.
PT 13	Working or cutting fluid preservatives	Products to control microbial deterioration in fluids used for working or cutting metal, glass or other materials.
<b>Main group 3: Pest control</b>		
PT 14	Rodenticides	Used for the control of mice, rats or other rodents, by means other than repulsion or attraction.
PT 15	Avicides	Used for the control of birds, by means other than repulsion or attraction.
PT 16	Molluscicides, vermicides and products to control other invertebrates	Used for the control of molluscs, worms and invertebrates not covered by other product types, by means other than repulsion or attraction.
PT 17	Piscicides	Used for the control of fish, by means other than repulsion or attraction.
PT 18	Insecticides, acaricides and products to control other arthropods	Used for the control of arthropods (e.g. insects, arachnids and crustaceans), by means other than repulsion or attraction.
PT 19	Repellents and attractants	Used to control harmful organisms (invertebrates such as fleas, vertebrates such as birds, fish, rodents), by repelling or attracting, including those that are used for human or veterinary hygiene either directly on the skin or indirectly in the environment of humans or animals.
PT 20	Control of other vertebrates	Used for the control of vertebrates other than those already covered by the other product types of this main group, by means other than repulsion or attraction.
<b>Main group 4: Other biocidal products</b>		
PT 21	Antifouling products	Used to control the growth and settlement of fouling organisms (microbes and higher forms of plant or animal species) on vessels, aquaculture equipment or other structures used in water.
PT 22	Embalming and taxidermist fluids	Used for the disinfection and preservation of human or animal corpses, or parts.

## 2.3 Labelling requirements

Labelling is required with the information listed below, if:

- A biocidal **claim** is made by the manufacturer of the treated article regarding the biocidal properties of the article – in case of a treated article containing a biocidal product. A biocidal claim is e.g. a claim of being “antibacterial”, “odourless”, “prevents growth of mold and algae”, “long-lasting wood protection against insects”, “controls fungus” or similar (EU1 2014).

- Labelling requirements are part of the approval decision of the active substance. This can be the case for active substances with problematical properties and where there is a possibility of contact with humans or release into the environment.

The label must provide the following information (Art. 58(3) BPR):

- A statement that the treated article incorporates biocidal products.
- Where substantiated, the biocidal property attributed to the treated article.
- The name of all active substances contained in the biocidal products.
- The name of all nanomaterials contained in the biocidal products, followed by the word 'nano' in brackets.
- Any relevant instructions for use, including any precautions to be taken because of the biocidal products with which a treated article was treated or which it incorporates.

The labelling shall be clearly visible, easily legible and appropriately durable. Where necessary because of the size or the function of the treated article, the labelling shall be printed on the packaging or on the instructions for use. The labelling requirement entered into force September 1, 2013 (EU2 2014).

## **2.4 Information rights**

According to Art. 58(5) of the BPR "...the supplier of a treated article shall, where a consumer so requests, provide that consumer, within 45 days, free of charge, with information on the biocidal treatment of the treated article." As a minimum the supplier must inform about the active substance used (EU2 2014). The right-to-know does only apply to treated articles.

# **3 Market survey of goods treated with biocides**

A market survey of goods treated with biocides has been carried out as the main part of this project. The procedure for the market survey is described in detail below. The results of the market survey are described in chapter 4.

## **3.1 Procedure for the market survey**

The market survey has been carried out by use of the following elements:

- Literature search
- Internet search
- On-site examination at retailers
- Searches in the Biocidal Active Substances database on the ECHA website for which active substances are used
- Searches in the Swedish national Product Register
- Contact to relevant trade associations
- Contact to relevant manufactures of substances and goods

### **3.1.1 Literature search**

A literature search has been carried out in order to identify and describe relevant literature that is addressing the subject of and giving examples of goods treated with biocides. The information obtained from the literature search has been used as a source for carrying out the internet search for specific examples of goods treated with biocides.

### **3.1.2 Internet search**

An internet search has been carried out in order to identify examples of which types of treated goods are available on the European market. The search has been made for both groups of treated articles: Group A (articles treated with preservatives) and group B (articles treated with disinfectants or insecticides).

As it would be a huge task to identify every kind of treated goods in all European countries, the internet search was limited to

- A search in English, Swedish and Danish language
- Finding some examples within each relevant product type (PT)

The internet search was performed by using keywords such as “antibacterial”, “anti-odour”, “disinfecting”, “preservative”, “preserve” or similar types of biocidal claims. However, the previous projects carried out on biocide treated articles were also used as an information source for the internet search, meaning that certain categories of treated goods were searched for as well, such as kitchen utensils, pet supplies, bathroom accessories, textiles etc..

### **3.1.3 On-site examination at retailers**

The internet search has been supplemented with an on-site examination at retailers for a minor selection of goods, as it may be a problem that a label or additional product information is not available on the website. The on-site examination at retailers has been carried out in Denmark only.

### **3.1.4 Searches in the ECHA database of biocidal active substances**

A search in the ECHA database of biocidal active substances (ECHA, Biocidal Active Substances 2015) has been carried out in order to find out which active substances are (legally) used in the EU.

The **ECHA database on biocidal active substances** contains 686 entries, i.e. active substances/product type combinations. After removing all duplicates, that is substances which were listed for several product types, 267 different active substances remained (database search performed October 27, 2015). The list contained both, ‘existing’ active substances included in the Review Programme as well as ‘new’ active substances (ECHA, Biocidal Active Substances 2015). These active substances were used as a search denominator in the Swedish Product Register.

### **3.1.5 Searches in the Swedish Product Register**

The Swedish Product Register is a database where companies have to notify chemical products that are produced in or imported into Sweden in amounts above 100 kg annually. However, specific chemicals like cosmetics or pharmaceuticals are not registered. This means that such chemical consumer products or non-chemical products, e.g. textiles, plastic, rubber or construction products etc. treated with biocides can not be identified via the Product Register.

The Swedish Chemicals Agency carried out a search in the Swedish Product Register. The search was performed for the active substances available in the ECHA active substances database (ECHA, Biocidal Active Substances 2015): The 267 different active substances which are approved or where an application for approval has been submitted were used as a

search denominator. The number of products which contained each one of the substances were identified. The products were listed by function code.

The function is a broad term used in the Product Register to describe the use category of the chemical products. The different functions used can be found on the website of the Product Register at the Swedish Chemicals Agency (Swedish Chemicals Agency 2015). The function codes starting with B15XXX are the codes for 'Biocidal Products' which seem to follow the 22 different product types (PTs) defined in the BPR except for the fact that 24 different 'Biocidal Products' codes exist in the Swedish Product Register. These two additional codes are:

- B15142 Sanitation agents for toilet – this function code belongs to PT 2,
- B15710 Preservatives for food and feedstocks – this function code refers to PT 20 of the BPD, which was abolished in the BPR.

When other function types as B15 codes are being used, it means that the product is not considered a biocidal product by the notifier, but it may still contain active substances (e.g. preservatives), and will in most cases qualify as a treated article.

The search in the Swedish Product Register was made with the following restrictions:

- The search was made for the 267 different active substances listed in the ECHA database, not for other possibly used active substances.
- In order to reduce the amount of data, all product categories with less than 10 entries were excluded from the search, i.e. only functions with 10 or more products containing the same active substances were listed.
- The amounts of the products are not listed, as this has not been a purpose of this search. The interesting information is which active substances are used in which types of products.

An alternative, and much more time consuming approach, would have been to look at all registered chemicals in the Product Register and identify which chemicals are active substances and which are not and then identify the products in which active substances are contained. By using the substances in the ECHA database as a search denominator any active substances that have not been approved or where an application for approval has not been submitted would not be identified. Nevertheless, finding "illegal" activities has not been the intention of this study.

The total list recovered from the search in the Swedish Product Register is presented in Annex 1. It shows that in all 210 different active substances from the ECHA database are found in the Swedish Product Register which are identified in 45,170 different products in Sweden. The function codes of the Swedish Product Register have been used to make a guess which PT the active substances belong to, i.e. what the purpose of adding a biocide would be. For instance, "joint-less floors" (function code G30100) were assumed to contain biocides which belong to PT 10; "pigments to paint and printing inks" (function code F05110) were assumed to contain biocides belonging to PT 6. These guesses have been made by authors of this report and are therefore not necessarily a correct translation. For being more certain which purpose the biocides in the products have, more information would be needed which could only be provided by the manufacturer or importer of the product in question. The list with the allocation of PTs to function codes can be found in Annex 1, Table 36.

The information retrieved from the product register is presented in chapter 4 under the different product types. Please notice that the chemical names used in the Swedish Product Register may differ from the chemical names used in the ECHA database. For this reason, the CAS number is included as identifier.

### **3.1.6 Contact to relevant trade organisations**

Selected relevant trade associations have been contacted in order to learn more about the specific active substances used in treated goods within different product types.

The following trade associations (in Denmark, Sweden and in Europe) have been contacted:

- SPT – the Danish soap and perfumery manufacturer association
- A.I.S.E – International Association for Soap, Detergents and Maintenance Products
- DFL – the Danish colour and adhesive industry (a part of Danish Industry (DI))
- DI – the Danish Industry
- Dansk Fashion & Textile
- The Danish Plastics Federation
- The Danish trade association for Building Centers
- Euratex – the European Apparel and Textile Confederation
- European Biocidal Products Forum – an organisation under CEFIC

However, in general the contact to the organisations gave very poor results (in form of responses like “no knowledge” or “no use of biocides” or no reply to the inquiry). The information received, however, has been listed under the relevant product types in chapter 4.

### **3.1.7 Contact to producers/manufacturers of preservatives**

In order to learn more about the use of preservatives in treated articles without a biocidal claim (part of group A), which are more difficult to find/to search for on the internet, producers of preservatives were contacted.

In all, 7 producers of preservatives were identified and contacted, but only one of the producers replied with detailed information about their use of preservatives together with information about the type of products/goods they were used in. The results are listed in chapter 4.

### **3.1.8 Contact to relevant suppliers of substances and goods**

In connection with the investigation of the information rights, a selection of suppliers and manufactures of goods treated with biocides was contacted in order to check whether they are aware of and comply with the 45 days’ rule. As a side effect of this investigation, information about certain products was received (mainly information regarding the active substance used). This information has been reported as well in chapter 4.

## **4 Results of the market survey**

In this chapter, the results of the market survey are presented. The results are presented for 22 different product types (PT) compiling information from different sources (literature search, internet search/on-site examination, searches in databases and information from trade organisations). Examples of treated goods are given and information about the active substances used or relevant are listed categorized by product type.

The information from literature is described shortly in section 4.1 “Literature review” and the examples of treated goods and used/listed active substances are listed in section 4.2 to 4.5.

## 4.1 Literature review

Various studies show that the market for treated consumer articles is huge and that active substances increasingly are being used for the treatment of everyday products (Swedish Chemical Agency 2012). Another Nordic survey addresses the issue of claims for biocidal effects such as “antibacterial” or “anti-odour” or similar and concludes that such claims are made for a vast amount of everyday articles, but that the information to support these claims is in general missing (Heijkenskjöld 2014).

The Swedish Chemicals Agency has performed an internet survey of articles treated with biocides and found numerous products made of textiles, plastics, ceramics, quartz and paper which were treated with biocide active substances. The treated articles identified were everyday products such as clothing, furniture and other textile products, building products, kitchen ware, bathroom accessories, cleaning supplies, office supplies and child care articles (Swedish Chemical Agency 2012). A more recent internal inspection report by the Swedish Chemicals Agency in 2014 comes to the conclusion that for most of the 47 inspected companies, the biocidal claim of their products were incorrect and the required labelling of the treated articles were missing (Swedish Chemicals Agency 2015).

A German market survey gives the same picture of treated articles (Smolka and Bradish 2013). In this survey, 100 different examples of biocide treated articles were identified within the same areas as in the Swedish survey, but additionally within electronic and electrical products as well as pet supply products.

A Danish survey on biocidal products in Denmark describes that active substances are used in plastics in order to prevent degradation of the plastics (such as products made of soft PVC with a degradable plasticizer) as well as to prevent microbial growth on the surface. Furthermore, plastic products are produced with an antibacterial surface to give hygienic surface properties to various kitchen utensils and appliances. The report also states that such treated articles are cleaning supplies, office supplies, consumer electronics. Further articles are textiles with antibacterial agents to prevent odour (Danish EPA 2013). Another Danish study discusses and describes the use of antimicrobial substances in plastics and reports that the dominant field of application is plasticised PVC, followed by polyurethane, polyethylene and polyester (Hansen, Nilsson og Ravnholt Vium 2014).

A couple of studies have been carried out specifically on textile products with antibacterial properties. A Swedish survey (Swedish Chemicals Agency 2012) focuses on the fact that antibacterial substances are being washed out of textile products with the washing water. Measurements of the active substances triclosan, triclocarban and silver were carried out. These measurements illustrated that for triclosan and triclocarban about half of the content or more than half was washed out after ten washes. For silver, between 10 and 98% of the content was washed out after ten washes. A more recent Swedish study (Swedish Chemicals Agency 2015) comes to the conclusion that for two thirds of the treated textiles an antibacterial effect cannot be demonstrated after 10 washes and thus questions the use of biocidal active substances in clothing if they are ineffective.

A Danish report has mapped the use of biocidal active substances in clothing, but has mainly been focusing on biocidal products used for protection of textiles during storage and

transportation. The products identified are therefore mainly biocidal products and not treated articles (Kjølholt, et al. 2014).

The above listed examples concern treated articles with a biocidal claim, but a project from the Danish EPA on a specific active substance (methylisothiazolinone) illustrates that this active substance is used in numerous treated articles without a claim, such as paint, glue, hobby paint, textile paint and different detergents and cleaning products (Tordrup, et al. 2015).

The results of the reports which are relevant for the different product types are described in chapter 4.2.1 “PT 1: Human hygiene” to chapter 4.5.1 “PT 21: Antifouling products and PT 22: Embalming and taxidermist fluids” below.

## **4.2 Examples of goods or categories of goods containing biocidal active substances for main group 1: Disinfectants**

Treated goods that contain active substances belonging to PT 1 to PT 5 are:

- Liquid chemical products (BP)
- Treated goods with a claim protective as for human or animal health. If the articles have a primary biocidal function, they will be considered as biocidal products, if the biocidal is not primary, they will be treated articles.

### **4.2.1 PT 1: Human hygiene**

Products in this group are biocidal products used for human hygiene purposes, applied on or in contact with human skin or scalps for the primary purpose of disinfecting the skin or scalp.

Many products in this product type are borderline products to cosmetic products – and as such excluded from the BPR.

#### **Example products available on the market**

A literature and internet search has been performed on products belonging to this product type. The type of products identified is listed in the Table 2 below. No treated articles were identified within PT 1.

Table 2: Examples of products belonging to PT 1

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Dettol	Disinfecting soap	"Removes bacterias"	-	DK	BP or outside scope of BPR	Annex 2
Safemate Antibakteriel håndsæbe	Disinfecting soap	"kills 99.9% of all bacteria"	-	DK	BP or outside scope of BPR	Annex 2
Nordisk Birk håndsæbe antibakteriel øko	Disinfecting soap	"antibacterial"	-	DK	BP or outside scope of BPR	Annex 2

BP = Biocidal Product; BPR = Biocidal Products Regulation

### Active substances used

SPT, the Danish trade organisation for soap and perfumery manufacturers, was contacted in order to learn about the use of preservatives in cosmetic products. According to SPT, the survey by the Danish EPA (Andersen, et al. 2015) is representative of the use of preservatives in cosmetic products in Denmark. The survey from the Danish EPA illustrated that the 10 preservatives most often used in cosmetic products are:

1. Phenoxyethanol
2. Sodium benzoate
3. Benzyl alcohol
4. Methylparaben
5. Potassium sorbate
6. Benzoic acid
7. Propylparaben
8. Methylisothiazolinone
9. Dehydroacetic acid
10. Ethylparaben

Parabens are increasingly less used in Denmark, because of an on-going debate in Denmark about the endocrine disrupting effects of the parabens, which has forced the Danish manufacturers to use other preservatives instead (Boteju 2015). The trend in the rest of the EU may be different.

### Active substances listed for PT 1

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 1 "Human hygiene" (version updated October 27, 2015):

- 34 different active substances are listed under PT 1. Of these are
  - 28 substances under review
  - 5 substances approved
  - 1 substance not approved

§ CAS 111-30-8 Glutaral (glutaraldehyde)

## Products with PT 1 active substances identified in the Swedish Product Register

The search in the Swedish Product Register has identified the active substances listed in Table 3. Only one function code was identified as being relevant for PT 1 (see Table 34 in Annex 1). This is:

- B15110 Human hygiene biocidal products

Table 3 shows that 3 different PT 1 active substances are used in products in Sweden. These products are regarded as biocidal products by the notifier. It should, however, be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

*Table 3: Active substances identified for use in product types for “human hygiene” (PT 1) in the Swedish Product Register. The substances are listed in ascending CAS number order.*

CAS no.	Chemical name	Function code	Function name	No. of products
122-99-6	Ethanol, 2-phenoxy-	<b>B15110</b>	Human hygiene biocidal products	10
64-17-5	Ethanol	<b>B15110</b>	Human hygiene biocidal products	34
67-63-0	2-Propanol	<b>B15110</b>	Human hygiene biocidal products	27

All 3 active substances have been approved or are under review for use in PT 1.

### Discussion

No examples of treated articles belonging to PT 1 have been identified within this project. The products identified are either biocidal products or cosmetic products which fall out of the scope of the BPR. Thus, the interpretation of market participants of articles with a primary biocidal function and such with a secondary biocidal function has not been explored.

#### **4.2.2 PT 2: Disinfectants and algaecides not intended for direct application to humans or animals**

##### **Example products available on the market**

A literature and internet search has been performed on products containing active substances belonging to PT 2. The type of products identified (and in some cases the identified active substance used) are listed in the Table 4 below.

Some products may be out of scope of the BPR. It is for example difficult to evaluate whether a textile cleaning cloth is a treated article or outside the scope of the BPR as the claimed removal of bacteria may be physical and not chemical. This product was therefore selected as one of the borderline cases between a biocidal product and a treated article) for evaluation by the Member States. Furthermore, some paints were identified with antibacterial claims. Such paints sold for example for use in hospitals may be biocidal products. An example of such paint was therefore also included in the evaluation of borderline products by Member States in chapter 7.

Table 4: Examples of treated goods belonging to PT 2

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
J-rens	Cleaning product	Bacteriostatic cleaning	Sodium hydroxyl-methyl-glycinate (CAS 70161-44-3)*	DK	BP	Annex 2
Linotral	Fabric softener	"Removes odour" from textiles and has a "antibacterial effect"	Benzalkonium chloride (CAS 8001-54-5)*	DK	BP	Annex 2
Ľelo antibakteriell rengöring	Disinfecting spray for toys for adults	Antibakteriell effect	-	DK, SE	BP	Annex 2
YtRent - Alkoholfri Antibakteriell rengöring	Cleaning spray for exterior surfaces	"Anti-bakteriell"	Polybiguanid (133029-32-0)*	SE	BP	Annex 2
Antibakteriell Leg etøjsvask Bentley Organic	Disinfecting spray for children toys	"Kills 99.99% bacteria"	-	DK	BP	Annex 2
Cleaning cloth MOBILE CLOTH Nano	Cloth for cleaning of different glass surfaces (smartphones, tablets etc.)	"Removes up to 98% of bacteria on touchscreen-displays"	-	UK	TA or out of scope of BPR (if only physical cleaning)	Annex 2
AM Lab antibakteriell spray	Antibacterial spray for large monitors and TVs	"antibacterial"	-	DK	BP	Annex 2
AM Mist - Antibakteriell all-in-one spray	Antibacterial spray for smartphone	"antibacterial"	-	DK	BP	Annex 2
AF Foamclean	Universal cleaner of plastic, fabric, metal, car seats etc.	"antibacterial - removes 99.9% of all bacteria"	-	DK	BP	Annex 2
Sonax aircon og klimarens	Cleaning product for ventilation systems	"removes bacterias and mould fungus"	-	DK	BP	Annex 2
Polygiene wash in	Antibacterial fabric softener for sport clothing	"antibacterial and removes bad odour"	Silver salt**	SE	BP	Annex 2
e-cloth Kitchen cleaning	Cloth for cleaning of surfaces	"removes up to 99% of all bacteria"	-	NO	TA or out of scope of BPR (if only physical cleaning)	Annex 2
Vanish extra hygiene pulver	Antibacterial textile cleaning	"antibacterial"	-	DK	BP	Annex 2

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Diskmedel Flytande Antibakteriellt 500ml Faith in Nature	Dishwashing soap for hand wash of dishes	"antibacterial"	No active substances. Claim probably based on tensidic properties.	SE	BP? Or outside scope of BPR	Annex 2
Diskmedel för Delfin glasdisk	Dishwashing soap for hand glass - can be used in cold water	"antibacterial"	-	SE	BP	Annex 2
Desinfektionsmid del Sonett	Cleaning product for disinfecting surfaces	"disinfecting"	-	DK	BP	Annex 2
SigmaCare Immun Mat	antibacterial wall paint for indoor use	"documented antibacterial properties"	Nano silver**	DK	BP	Annex 2
Antibakterielt trådløst vandtæt industri keyboard med mikro USB receiver, sort (SVENSK layout)	Black computer keyboard	"antibacterial"	Nano silver**	DK	TA	Annex 2
Canon HS- 121TGA antibakteriel lommeregner, hvid	White pocket calculator	"antibacterial"	-	DK	TA	Annex 2
Philips elektrisk rakapparat	Electric shaver for men	"antibacterial"	-	SE	TA	Annex 2
Decora® Residential and Commercial Grade Switches	Light switch	"antimicrobial "	Silver alloy**	DK, SE, UK, IT, NO, F, DE, BE, NE, PL, ES	TA	Annex 2
Antibacterial 2- way switch Mosaic - with LED indicator - 10 AX - 2 modules	Light switch	"antibacterial"	-	F	TA	Annex 2
The WC wunder brush	Toilet brush	"antibacterial and antimicrobial"	Silver iones**	UK	TA	Annex 2
Johansen D-form toiletsæde softclose og antibakteriel, hvid	Toilet seat	"antibacterial"	-	DK	TA	Annex 2
Laufen Pro toiletsæde m. softclose og antibak overflade	Toilet seat	"antibacterial"	-	DK	TA	Annex 2
Vægghængd Toalettstol Ifö	Toilet seat	"antibacterial"	-	SE	TA	Annex 2

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Sign Komplet 6875 WC- Element 1100 Spolknapp Collis Vit Antibakteriell						
Croydex Toilet Seat Anti- Bacterial Slow- close Hinge White	Toilet seat	"antibacterial"	-	UK	TA	Annex 2
C/S Wallglaze® Specialfärger för hygienmiljöer	Special paint for hospitals	"antibacterial, fungistatic, MRSA- resistant"	-	SE	BP	Annex 2
Beko Kylskåp med antibakteriellt dörrhandtag	Refrigerator with antibacterial handle and odour filter	"antibacterial handle and antibacterial odour filter"	-	SE	TA	Annex 2
Sea to Summit Drylite antibakteriell handduk	Towel	"antibacterial"	Silver iones**	SE	TA	Annex 2
Antibakteriel etui	Contact lens case	"antibacterial"	Silver iones**	DK	TA	Annex 2
Mätte til vådrum, af hygiejnisk, skridsikkert, antibakteriel og svampedræbende EVA	Paint? for use on floors in wet rooms	"antibacterial and kills fungus"	-	DK	TA	Annex 2
30stk Engangs Toilet Mätte Antibakteriel Vandtæt Sæde	Paper towel for toilet seat	"antibacterial"	-	DK	TA	Annex 2
Silentnight Anti- Bacterial Pillow Twinpack	Pillow	"antibacterial"	-	UK	TA	Annex 2
Aloe Vera Antibakteriellt doftämne för vattendammsugar e	Perfume for water vacuum cleaners	"neutralizes bad odours, antibacterial"	-	SE	BP	Annex 2
shuian® talsmanden rektangulære sund ventilation kompression plume fløj antibakteriel pude	Pillow	"antibacterial"	-	DK, UK, FR, ES, DE, IT, P, NE, NO, SE, FI	TA	Annex 2
Antikvalster och dammallergifri kudde orginal orthomagon	Pillow	"antibacterial"	-	SE, DE	TA	Annex 2

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Living Anti-bacterial 7.5 Tog Duvet - Double	Duvet	"antibacterial"	-	UK	TA	Annex 2
Silentnight Antibacterial Size Duvet, 13.5 Tog	Duvet	"antibacterial"	-	UK	TA	Annex 2
Phantom Boksehandsker Ultra Training Blå	Boxing gloves	"antimicrobial and anti odour"	-	DK	TA	Annex 2
Rösle Opvaskebørste antibakteriel	Antibacterial washing-up brush	"antibacterial"	-	DK	TA	Annex 2
Kitchen sink	Metal		Silver	DE	TA	(Smolka and Bradish 2013)
Dish brushes	Plastics		Silver	SE, DE	TA	(Swedish Chemical Agency 2012) (Smolka and Bradish 2013)
Plastic bags/rubbish bags	Plastic products		Triclosan	SE, DE	TA	
Oven gloves	Textiles	Often "antibacterial"		DE	TA	
Toilet seat paper	Papier	"antibacterial"		DK	TA	Annex 2
Toilet seats; Toilet tidy sets; Toothbrushes;	Plastic products	No	Triclosan (CAS 3380-34-5)	DK, Europe, world wide	TA	(Hansen, Nilsson og Ravnholt Vium 2014)
Toilet paper	Paper		-		TA	(Swedish Chemical Agency 2012), (Smolka and Bradish 2013)
Toilet seats	Plastics	Often "antibacterial"	-	SE, DE, DK	TA	
Blomberg GUN 9486 XSP20 opvaskemaskine	Dishwasher with antibakteriel sealing	"antibacterial"	-	DK	TA	Annex 2
Skimmel-Protect maling med mikro-sølv	Antifungal wall paint for indoor use	"mold protection"	Silver phosphat	DK, SE, NO	BP	Annex 2
SPLAT	antibacterial toothbrush for children	"antibacterial"	Silver unspecified*	DK, UK	TA	Annex 2
LAMILUX Super	laminat	"LAMILUX AntiBac sustainably and efficiently neutralises more than 99.9% of all		DE	TA	Annex 2

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
		bacteria on its surface"				
X-socks - Run sky run	Running textile socks	"reduces the spreading of bacteria and neutralize bad odour"	Silver unspecified* *	SE	TA	Annex 2
Laminate flooring	Plastics	Often "antibacterial"	-	DE	TA	(Smolka and Bradish 2013)
Krono Original® A.B.C. Anti-Bacterial Coating	Tiles/floor	"antibacterial"	-	DE	TA	Annex 2
Flexi Tile fliser	Tiles	"antibacterial - removes 99.9% bacteria"	-	DK	TA	Annex 2
Bergo Soft Tile	Floor	"antibacterial"	-	SE	TA	Annex 2
Antibacterial Epoxy Sealant	Sealant for ceramic tiles	"antibacterial"	-	IT	TA	Annex 2
Floor and wall coatings	Paper, textiles and other materials	Often "antibacterial"		SE	TA	(Swedish Chemical Agency 2012)
Swimming pool liners;	Plastic products	No	Triclosan (CAS 3380-34-5)	DK, Europe, world wide	TA	(Hansen, Nilsson og Ravnholt Vium 2014)
Wallpaper	Paper	Often "antibacterial"	Silver	DE	TA	(Smolka and Bradish 2013)
Pool chemicals	Disinfectants	?	See AS in Table 5 below	Nordic countries	BP	(Nordic Council of Ministers 2011)
Pool chemicals	Algaecides	?	See AS in Table 5 below	Nordic countries	BP	(Nordic Council of Ministers 2011)
Various knobs and handles	Plastics, metals and other materials	Often "antibacterial"		SE	TA	(Swedish Chemical Agency 2012)
Sinks	Metal	Often "antibacterial"		SE, DK, DE	TA	(Smolka and Bradish 2013)

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Dishwashers	Electronics, metal, plastics	Often “antibacterial”	Zink based	SE, DE, DK	TA	(Swedish Chemical Agency 2012), (Smolka and Bradish 2013), Annex 2, (Danish EPA 2013)
Vacuum cleaners					TA	
Epilator		Often “antibacterial”	Mainly silver	DE, DK	TA	(Smolka and Bradish 2013), Annex 2
Shaver						
Trimmer						
Washing machine						
Light switches	Electronics, plastics	“antibacterial”	Silver	DE, DK	TA	(Smolka and Bradish 2013), Annex 2
Radiators	Metal	“antibacterial”	Silver	DE	TA	(Smolka and Bradish 2013)
Computer keyboard	Plastics, electronics	“antibacterial”		DK	TA	Annex 2
School scissors	Metal, plastics	“antibacterial”	Silver	DE, DK	TA	Annex 2, (Smolka and Bradish 2013)
School calculator	Plastics, electronics	“antibacterial”	Silver	DE, DK	TA	
Note book		Often “antibacterial”	Silver	DE, DK	TA	(Smolka and Bradish 2013), Annex 2
Stamp			Silver			
Mousepad with hand rest			Triclosan			
Foot rest		Antimicrobial and odourless	Triclosan			
Waste-paper basket		Often “antibacterial”	Silver	DE, DK	TA	(Smolka and Bradish 2013), Annex 2
iPod Cover						
Headphones						
Laminate flooring	Plastics	“antibacterial”		DE	TA	(Smolka and Bradish 2013)
Swimming pool liners;	Plastic products	No	Triclosan (CAS 3380- 34-5)	DK, Europe, world wide	TA	(Hansen, Nilsson og Ravnholt Vium 2014)
Floor and wall coatings	Paper, textiles and other materials	Often “antibacterial”		SE	BP	(Swedish Chemical

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
						Agency 2012)
Baby bottles	Plastic product		Silver	SE, DE	TA	(Swedish Chemical Agency 2012)
Nursing pads	Plastic/rubber products			SE, DE	TA	
Changing stations	Plastic/rubber products			SE, DE	TA	
Children's scissors				SE, DE	TA	
Baby teething ring				DE	TA	(Smolka and Bradish 2013)
Baby rattle			Silver	DE	TA	
Play carpet for babies	Textiles		Often "antibacterial"	Silver	DE	TA
Exercise mat / yoga mat		Often "antibacterial"				(Smolka and Bradish 2013), Annex 2
Contact lens case			Silver	DE, DK		
Cleaning cloth for glasses			Silver	UK	TA	

BPR = Biocidal Products Regulation; BP = Biocidal Product; TA = Treated article; AS = Active substance

\* = the active substances have not been approved or are under review for PT 2

\*\* = silver and certain silver compounds are under review for PT 2

The Nordic control project on pool chemicals identified the following disinfectants and algacides in pool chemicals in Nordic countries in 2011 (see Table 5). The report does not state the specific product names of the pool chemicals, but is a compilation of the 94 disinfectant products and 46 algacide products identified during the control. However, it is assumed that all pool chemicals will be biocidal products as their only function is the biocidal function.

Table 5: Identified disinfectants and algacides in pool chemicals in the Nordic countries in 2011 (Nordic Council of Ministers 2011)

CAS number	Name of active substance	Type of pool chemical	In the ECHA database of active substances
10035-04-8	Calcium chloride	Algacides	No
10043-01-3	Aluminium sulphate	Disinfectant and algacide	No
10043-35-3	Boric acid	Algacides	Yes, but not for PT 2
108-80-5	Cyanuric acid	Algacides	No
1305-62-0	Calcium dihydroxide/calcium hydroxide/caustic lime/hydrated lime/slaked lime,	Disinfectant	Yes
139-07-1	Benzododecinium chloride	Disinfectant and algacides	No
139-08-2	Miristalkonium chloride	Algacides	No
16079-88-2	1-bromo-3-chloro-5,5-dimethylimidazolidine-2,4-dione	Disinfectant	No

CAS number	Name of active substance	Type of pool chemical	In the ECHA database of active substances
25988-97-0	Polymer of N-Methylmethanamine (EINECS 204-697-4 with (chloromethyl) oxirane (EINECS 203-439-8)/Polymeric quaternary ammonium chloride (PQ Polymer),	Disinfectant and algaecides	Yes
26062-79-3	Poly(diallyldimethylammonium chloride)	Algaecides	No
27083-27-8	Monohydro chloride of polymer of N,N''-1,6-hexanedylbis[N'-cyanoguanidine] (EINECS 240-032-4) and hexamethylenediamine (EINECS 204-679-6)/ Polyhexamethylene biguanide (monomer: 1,5-bis(trimethylen)-guanilyguanidinium monohydrochloride) (PHMB),	Disinfectant	Yes
2893-78-9	Troclosene sodium,	Algaecides	Yes
32718-18-6	Bromochloro-5,5-dimethylimidazolidine-2,4-dione (BCDMH/Bromochlorodimethylhydantoin),	Disinfectant and algaecides	Yes
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid	Disinfectant and algaecides	No
497-19-8	Sodium carbonate	Disinfectant	No
51580-86-0	Sodium dichloroisocyanurate dihydrate,	Algaecides	Yes
63449-41-2	quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	Disinfectant	No
64-17-5	Ethanol	Algaecides	Yes
68424-85-1	Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-16)),	Disinfectant and algaecides	Yes
68989-00-4	Quaternary ammonium compounds, benzyl-C10-16-alkyldimethyl, chlorides	Disinfectant	No
70693-62-8	Pentapotassium bis(peroxymonosulphate) bis(sulphate),	Disinfectant and algaecides	Yes
7173-51-5	Didecyldimethylammonium chloride(DDAC),	Disinfectant and algaecides	Yes
7440-50-8	Copper	Disinfectant	Yes
7646-93-7	Potassium hydrogensulphate	Disinfectant	No
7647-01-0	Hydrogen chloride	Disinfectant and algaecides	No
7647-14-5	Sodium chloride	Disinfectant	No
7681-38-1	Sodium hydrogen sulphate	Disinfectant	No
7681-52-9	Sodium hypochlorite,	Disinfectant	Yes
7722-84-1	Hydrogen peroxide,	Algaecides	Yes
7758-98-7	Copper sulphate	Disinfectant and algaecides	No
7775-27-1	Disodium peroxodisulphate/Sodium persulphate,	Disinfectant	Yes, but not for PT 2
7778-54-3	Calcium hypochlorite,	Disinfectant and algaecides	Yes, but not for PT 2
8001-54-5	Benzalkonium chloride	Disinfectant and algaecides	No
872-50-4	N-methyl-2-pyrrolidone	Algaecides	No
87-90-1	Symclosene	Disinfectant and algaecides	Yes

## Active substances listed for PT 2

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 2 “Disinfectants and algacides not intended for direct application to humans or animals”:

- 86 different active substances are listed under PT 2
- Of these are
  - 7 substances approved
  - 78 substances are under review
  - 1 substance not approved
    - § CAS 3380-34-5 Triclosan

## Products identified with PT 2 active substances in the Swedish Product Register

The products identified are listed in Table 6. Three function codes were identified as being relevant for PT 2 (see Table 34 in Annex 1):

- A05300 Air cleaners and anti-odour agents (not filters, not deodorants see also D20XXX)
- B15120 Private area and public health area disinfectants and other biocidal products
- B15142 Sanitation agents for toilets

Table 6 shows that 24 different active substances are used in products in Sweden in PT 2. It should, however, be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

Table 6: Examples of product categories containing active substances belonging to PT 2. The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
10043-35-3	Boric acid	B15120	Private area and public health area disinfectants and other biocidal products	43
111-30-8	Pentanedial (Glutaral)	B15120	Private area and public health area disinfectants and other biocidal products	17
1305-62-0	Calcium hydroxide	B15120	Private area and public health area disinfectants and other biocidal products	14
2372-82-9	1,3-Propanediamine, N-(3-aminopropyl)-N-dodecyl-	B15120	Private area and public health area disinfectants and other biocidal products	17
25988-97-0	Methanamine, N-methyl-, polymer with (chloromethyl)oxirane	B15120	Private area and public health area disinfectants and other biocidal products	31
27083-27-8	Guanidine, N,N''-1,6-hexanediybis[N'-cyano-, polymer with 1,6-hexanediamine, hydrochloride	B15120	Private area and public health area disinfectants and other biocidal products	18
2893-78-9	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt	B15120	Private area and public health area disinfectants and other biocidal products	12
32718-18-6	2,4-Imidazolidinedione, bromochloro-5,5-dimethyl-	B15120	Private area and public health area disinfectants and other biocidal products	10
51580-86-0	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione,	B15120	Private area and public health area disinfectants and other biocidal products	23

CAS no.	Chemical name	Function code	Function name	No. of products
	1,3-dichloro-, sodium salt, dihydrate			
<b>5395-50-6</b>	Imidazo[4,5-d]imidazole-2,5(1H,3H)-dione, tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)-	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	15
<b>64-17-5</b>	Ethanol	<b>A05300</b>	Air cleaners and anti-odour agents (not filters, not deodorants see also D20XXX)	10
		<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	129
<b>67-63-0</b>	2-Propanol	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	136
<b>68391-01-5</b>	Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	14
<b>68424-85-1</b>	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	78
<b>70693-62-8</b>	Potassium peroxydisulfate sulfate (K5H3(SO3(O2))2(SO4)2)	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	25
<b>71-23-8</b>	1-Propanol	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	13
<b>7173-51-5</b>	1-Decanaminium, N-decyl-N,N-dimethyl-, chloride	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	47
<b>7681-52-9</b>	Hypochlorous acid, sodium salt	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	26
<b>7722-84-1</b>	Hydrogen peroxide	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	32
<b>7778-54-3</b>	Hypochlorous acid, calcium salt	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	26
<b>77-92-9</b>	1,2,3-Propanetricarboxylic acid, 2-hydroxy-	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	13
		<b>B15142</b>	Sanitation agents for toilets	13
<b>79-21-0</b>	Ethaneperoxy acid	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	13
<b>79-33-4</b>	Propanoic acid, 2-hydroxy-, (S)-	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	10
<b>87-90-1</b>	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-	<b>B15120</b>	Private area and public health area disinfectants and other biocidal products	54

The active substances marked with shading are neither approved nor under review for use in PT 2; however, they might be added for another function than the biocidal function.

Out of the 24 active substances used in Sweden for functions within PT 2, 3 have not been approved or are under review for use in PT 2 according to the ECHA database (ECHA, Biocidal Active Substances 2015). However, one of these – boric acid – may probably be used for other reasons, e.g. as a buffer.

## Discussion

The literature search has resulted in various examples of treated articles containing active substances belonging to PT 2. However, some identified treated goods are either biocidal products or products which fall out of the scope of the BPR.

### 4.2.3 PT 3: Veterinary hygiene

Products in this group are used for veterinary hygiene purposes such as disinfectants, disinfecting soaps, oral or corporal hygiene products or products with anti-microbial function. The products are used to disinfect the materials and surfaces associated with the housing or transportation of animals.

#### Example products available on the market

A literature and internet search has been performed on products with active substances belonging to PT 3. The type of products identified (and in some cases the identified active substance used) is listed in the Table 7 below.

Table 7: Examples of treated goods within PT 3 identified in literature and on the internet

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
AntiSept Chlorhexidine spray	Disinfecting spray for animals	Disinfecting wounds	Chlorhexidine (CAS 55-56-1)*	DK	BP	Annex 2
Skin Spray Antibakteriel, med TeaTree oil	Antibacterial spray for skin of the horse for wounds, mould	"antibacterial"	Zink*, tea tree oil* and iodine	DK	BP	Annex 2
Dechra MalAcetic Wet Wipes	Antibacterial wet wipes for animals	"antibacterial properties"	Boric acid (CAS 10043-35-3)*	SE	BP	Annex 2
Exerfit Antibakteriell a servietter	Antibacterial wet wipes	"antibacterial"	-	SE	BP	Annex 2
Vaskeklude til hunde, antibakterielle	Antibacterial wet wipes for animals	"antibacterial and neutralises bad odour"	-	DK	BP	Annex 2
StrongSkin Wash	Shampoo for treatment of cats and dogs	"antibacterial effect"	-	DK	BP	Annex 2
Aptus Dermocanis Pyoderma antibakteriel shampoo	Shampoo for treatment of cats and dogs	"antibacterial effect"	-	DK	BP	Annex 2
Bionaire – antibakteriell matta	Matt for cats in the cat litter box	"antibacterial"	-	SE	TA	Annex 2

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Oster Antibacterial Litter Mat	Litter mat for cats	"antibacterial"	-	UK, DK	TA	Annex 2
Karma Wrap	Kind of T-shirt for dogs	"antibacterial"	-	DK	TA	Annex 2
KBF99 Hovbørste/Vaskebørste, Antibakteriel	Brush for horses hoof	"antibacterial"	Positively charged molecules	DK	TA	Annex 2
RAMBO Supreme - udendørs overgangsdækken med 200 g fyld	Horse blanket	"antibacterial"	-	DK, IR	TA	Annex 2
Mikrofiber hvalpe tandbørste, antibakteriel	Antibacterial microfiber finger toothbrush	"antibacterial"	Silver**	DK	TA	Annex 2
Cat litter trays		"antibacterial"		SE, DE	TA	(Swedish Chemical Agency 2012), (Smolka and Bradish 2013)
Cat litter tray mat	Plastic, rubber	Often "antibacterial"	Silver	DE	TA	(Smolka and Bradish 2013), Annex 2
Cleaning cloth for dogs						
Feeding bowl	Plastics, metal					
Dog sofa bed						
Dog lead			Silver			
Pet accessories such as litter trays, food bowls, and Frisbees	Plastic products	No	Triclosan (CAS 3380-34-5)	DK, Europe, world wide	TA	(Hansen, Nilsson og Ravnholt Vium 2014)

BPR = Biocidal Products Regulation; BP = Biocidal Product; TA = Treated article; AS = Active substance

\* = the active substances have not been approved or are under review for PT 3

\*\* = certain silver compounds are under review for PT 3, but no pure silver

### Active substances listed in PT 3

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 3 “Veterinary hygiene”:

- 52 different active substances are listed under PT 3. Of these are
  - 5 substances approved
  - 43 substances are under review
  - 4 substances not approved
    - § CAS 122-99-6 Phenoxyethanol
    - § CAS 1338-23-4 2-butanone peroxide
    - § CAS 26781-23-7 Polymer of formaldehyde and acroelin
    - § CAS 7783-90-6 Silver chloride

### Products identified with PT 3 active substances in the Swedish Product Register

The products identified are listed in Table 8. One function code was identified as being relevant for PT 3 (see Table 34 in Annex 1):

- B15130 Veterinary hygiene biocidal products

Table 8 shows that 5 different active substances are used in biocidal products in Sweden belonging to PT 3. It should, however, be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

Of these 5 different active substances, 2 substances are neither approved nor under review under PT 3 according to the ECHA database. These two substances (ethanol and 2-propanol) may, however, be added for another function than the biocidal function, e.g. they may act as solvents.

Table 8: Active substances identified in biocidal products for “Veterinary hygiene” (PT 3) in the Swedish Product Register. The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
64-17-5	Ethanol	B15130	Veterinary hygiene biocidal products	12
67-63-0	2-Propanol	B15130	Veterinary hygiene biocidal products	10
69-72-7	Benzoic acid, 2-hydroxy-	B15130	Veterinary hygiene biocidal products	10
7553-56-2	Iodine	B15130	Veterinary hygiene biocidal products	11
79-33-4	Propanoic acid, 2-hydroxy-, (S)-	B15130	Veterinary hygiene biocidal products	17

The active substances marked with shading are neither approved nor under review for use in PT 3; however, they might be added for another function than the biocidal function.

### Discussion

The literature search has resulted in some examples of treated articles containing active substances belonging to PT 3. However, some identified treated goods are biocidal products.

#### 4.2.4 PT 4: Food and feed area

Products in this group are used for the disinfection of equipment, containers, consumption utensils, surfaces or pipework associated with the production, transport, storage or consumption of food or feed (including drinking water) for humans and animals. Furthermore, the products are used to impregnate materials which may enter into contact with food.

## Example products available on the market

A literature and internet search has been performed on products containing active substances belonging to PT 4. The type of products identified is listed in the Table 9 below. The types of products identified within PT 4 and within the area of consumer products are refrigerators, kitchen utensils or a series of anti-microbial food packaging material. These products are all evaluated to be treated articles. The anti-microbial food packaging products were chosen as an example of a borderline product for evaluation by Member States, as it can be discussed whether or not the effect is to protect from bacteria is physical or chemical. See chapter 7 “Evaluation of products” for the evaluation by the Member States.

Table 9: Examples of treated goods within PT 4 identified in literature and on the internet

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Gorenje R6192KX Køleskab	Refrigerator with antibacterial Ion-air technology	"exterminate 95% of all bacteria"	-	DK	TA	Annex 2
Osprey Hydraulics 2L Reservoir	2 Liter water reservoir	"Antibacterial film"	-	DK	TA	Annex 2
Blomberg SSM 9640 X A+ Køleskab	Refrigerator with antibacterial door	"antibacterial door packing"	-	DK	TA	Annex 2
Whirlpool Antibakteriafilter för kylskåp	Filter for refrigerator	"antibacterial"	-	SE	TA	Annex 2
Køkkenredskaber multifunktionelle køkken høj tætte bånd fad rille antibakterielle skærebræt	Antibacterial cutting board	"antibacterial"	-	World wide	TA	Annex 2
Køleskab Hotpoint E3D AA W	Refrigerator with antibacterial film	"antibacterial film"	-	DK	TA	Annex 2
Sanocoat	anti-microbial packaging	"anti-microbial"	-	World wide, UK	TA	Annex 2
Saucepan	Metal	Often “antibacterial”		DE	TA	(Smolka and Bradish 2013)
Refrigerators	Electronics, metal, plastics	Often “antibacterial”	Silver	SE, DE, DK	TA	(Swedish Chemical Agency 2012),
Freezers	Electronics, metal, plastics	Often “antibacterial”		SE, DE, DK	TA	(Smolka and Bradish 2013),

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
						(Danish EPA 2013)
Food storage containers; Wheelie bins	Plastic products	No	Triclosan (CAS 3380-34-5)	DK, Europe, world wide	TA	(Hansen, Nilsson og Ravnholt Vium 2014)
Cutting boards	Plastic products	Often “antibacterial”		SE, DK, DE	TA	(Swedish Chemical Agency 2012), (Smolka and Bradish 2013), Annex 2
Food boxes	Plastic products					
Knives	Plastic and metal					
Salad bowls	Plastic products					
Plates	Ceramics and plastics					
Grater		Often “antibacterial”		DE	TA	(Smolka and Bradish 2013)
Water filter for tap water	Plastic products	“antibacterial”		UK	TA	Annex 2
Water reservoir for camping	Plastics	“antibacterial film”		DK	TA	Annex 2

TA = Treated article

#### Active substances listed for PT 4

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 4 “Food and feed area”:

- 59 different active substances are listed under PT 4. Of these are
  - 10 substances approved
  - 48 substances are under review
  - 1 substance not approved
    - § CAS 7783-90-6 Silver chloride

#### Products identified with PT 4 active substances in the Swedish Product Register

The products identified are listed in Table 10. One function code was identified as being relevant for PT 4 (see Table 34 in Annex 1):

- B15140 Food and feed area disinfectants

Table 10 shows that 7 different active substances are used in products in Sweden in PT 4, and all 7 active substances are currently either approved or under review according to the ECHA database (ECHA, Biocidal Active Substances 2015). It should, however, be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

Table 10: Active substances identified in biocidal products listed as “Food and feed area disinfectants” (PT 4) in the Swedish Product Register. The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
2372-82-9	1,3-Propanediamine, N-(3-aminopropyl)-N-dodecyl-	B15140	Food and feed area disinfectants	11
64-17-5	Ethanol	B15140	Food and feed area disinfectants	12
67-63-0	2-Propanol	B15140	Food and feed area disinfectants	29
7173-51-5	1-Decanaminium, N-decyl-N,N-dimethyl-, chloride	B15140	Food and feed area disinfectants	23
7681-52-9	Hypochlorous acid, sodium salt	B15140	Food and feed area disinfectants	16
7722-84-1	Hydrogen peroxide	B15140	Food and feed area disinfectants	33
79-21-0	Ethaneperoxoic acid	B15140	Food and feed area disinfectants	17

## Discussion

PT 4 covers disinfectants used for equipment etc., used within the food and feed areas, i.e. typically chemical products or different kitchen utensils (treated goods). The internet search resulted in a few examples of treated articles belonging to PT 4, i.e. a series of food contact materials for food packaging and different biocide treated kitchen utensils and refrigerators that come into contact with foods. Whether these treated goods are defined as treated articles will depend on if the primary biocidal function is fulfilled or not.

### 4.2.5 PT 5: Drinking water

Products in this group are used for disinfection of drinking water for both humans and animals.

#### Example products available on the market

A literature and internet search has been performed on products containing active substances belonging to BP5. The type of products identified (and the identified active substance used) is listed in Table 11 below. Only one example of treated articles was identified.

Table 11: Examples of treated goods within PT 5 identified in literature and on the internet

Product name	Description	Claim	Active substance	Available in	Evaluation	Reference
Aqua-optima	Water filter	"antibacterial"	-	UK	BP	Annex 2
Yachticon Aqua Clean	Water disinfectant	"remains up to six months free of germs and fresh"	Silver salt*	DE, DK, NL, UK, FR, SP, IT	BP	Annex 2
Yachticon Aqua Clean Quick	Water disinfectant	"disinfect and keep your water fresh"	Silver, Calcium-hypochlorit (CAS 7778-54-3)	DE, DK, NL, UK, FR, SP, IT	BP	Annex 2
Micropur Classic MC 1'000F	Water disinfectant	"keeps water free from germs, algae and odours"	Silver ions*	DE, EU	BP	Annex 2

BP = Biocidal product

\* = silver and certain silver compounds are under review for PT 5

## Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 5 “Drinking water”:

- 23 different active substances are listed under PT 5. Of these are
  - 1 substance approved
  - 21 substances are under review
  - 1 substance not approved
    - § CAS 7783-90-6 Silver chloride

## Products identified with PT 5 active substances in the Swedish Product Register

The products identified are listed in Table 12. Only one function code was identified as being relevant for PT 5 (see Table 34 in Annex 1):

- B15150 Drinking water disinfectants

Table 12 shows that one active substance is used in biocidal products in Sweden in PT 5 and this active substance is currently under review according to the ECHA database. It should, however, be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

Table 12: Active substances identified for use in product types for “Drinking water” (PT 5) in the Swedish Product Register. The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
7681-52-9	Hypochlorous acid, sodium salt	B15150	Drinking water disinfectants	10

## Discussion

No example of treated articles with active substances belonging to PT 5 were found, neither in the literature and the internet search nor the search in the Swedish Product Register. The products identified are biocidal products. This is in line with what is stated by the EU Commission in the guidance document on treated articles (EU1 2014): “*any chemical substance, mixture or article containing active substances that fall into this PT 5 are likely to be classified as biocidal products due to their use and the nature of the biocidal effect.*” .

## 4.3 Examples of goods or categories of goods containing biocidal active substances for main group 2: Preservatives

This main group includes goods treated with biocides to prevent microbial and algal development. It is expected that many goods treated with biocides belonging to PT 6 to PT 13 will be treated articles, if only the preservation of the article itself is intended and no claim for a biocidal function is made. However, in cases where a claim is made and the product in question is a mixture, it is considered a biocidal product.

### 4.3.1 PT 6: Preservatives for products during storage

Products in this group are used for the preservation of manufactured products, other than foodstuffs, feeding stuffs, cosmetics or medicinal products or medical devices by the control

of microbial deterioration to ensure their shelf life. Products in this group are even used as preservatives for the storage or use of rodenticide, insecticide or other baits.

### Literature, internet search and contact to producers of preservatives

A literature and internet search has been performed on products containing active substances belonging to PT 6. However, articles treated with preservatives belonging to PT 6 are difficult to identify because they usually have no claim. For this reason another approach was used, and a selection of producers of preservatives were contacted instead. In all, seven producers of preservatives in Europe were identified, but there may be other European producers. These producers were contacted, but only one of them gave specific information about the intended use of their preservatives. Their information was, however, very specific, describing the preservatives sold as well as in which type of products they were used in.

The type of products identified in literature and through producers of preservatives is listed in Table 13 below. However, mainly specific groups of products are listed, and not specifically named products. All products listed in the table below are considered to be treated articles with one exemption.

Table 13: Examples of treated goods within PT 6 identified in literature and on the internet

Product group	Description	Claim	Active substance	Available in	Evaluation	Reference
Hand washing-up liquid	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Liquid detergent	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Other cleaning products	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Toilet bowl cleanser	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Car shampoo	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Wetting agent	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Cleaning tissue	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Vinyl cleaner	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Floor cleaner	Detergents and household cleaning products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Construction chemicals	Construction chemicals	No	Bronopol Octhilinone	DE	TA	Producer of preservatives

Product group	Description	Claim	Active substance	Available in	Evaluation	Reference
Cleaners	Detergents and household cleaning products	No	CIT/MIT <sup>17</sup> and Mg-salt	CZ	TA	Producer of preservatives
Household cleaner and care products	Detergents and household cleaning products	No	BIT <sup>18</sup> , MIT <sup>19</sup> , DGH <sup>20</sup>	DE, AU	TA	Producer of preservatives
Textile dyes	Dyes	No	CIT/MIT, Mg-/Cu-Salt	DE	TA	Producer of preservatives
Car care products	Car care products	No	CIT/MIT + EDDM <sup>21</sup>	DE	TA	Producer of preservatives
Pigment slurries	Dyes	No	DBNPA <sup>22</sup>	F, I	TA	Producer of preservatives
Textile coatings		No	BIT + MIT	DE	TA	Producer of preservatives
Water beds	Home products	No	CIT/MIT + bronopol	DE	TA	Producer of preservatives
Polishes	Polishes	No	BIT + MIT	DE	TA	Producer of preservatives

### Contact to trade organisations

Different trade organisations were contacted and the general reply was that the in-can preservatives typically used are the active substances approved (or under review) for PT 6. This applies for chemical products such as detergents, textile detergents, car polish etc. However, A.I.S.E. – the International Association for Soap, Detergents and Maintenance Products – informed that the most frequently used active substances for preservation of detergents and cleaning products belonging to PT 6 are the preservatives listed below. The list is not exhaustive, but gives an indication about important active substances (Cazelle 2015):

- Isothiazolinones family (main PT 6 active substance family used to preserve detergents and cleaning products): BIT, CMIT/MIT, MIT, OIT
- Other PT 6 active substances often used:
  - Phenoxyethanol
  - Bronopol
  - Formaldehyde releasers
  - Lactic acid

### Active Substances listed for PT 6

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 6 “Preservatives for products during storage”:

- 50 different active substances are listed under PT 6. Of these are
  - 4 substances approved
  - 44 substances are under review

<sup>17</sup> CIT/MIT is the reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7], and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

<sup>18</sup> 1,2-benzisothiazol-3(2H)-one

<sup>19</sup> 2-methyl-2H-isothiazolin-3-one (or also abbreviated MI)

<sup>20</sup> n-dodecylguanidine hydrochloride

<sup>21</sup> Ethylene glycol bis(hydroxymethyl)ether

<sup>22</sup> 2,2-Dibrom-3-nitrilpropionamide

- 2 substances not approved
  - § CAS 1338-23-4 2-butanone peroxide
  - § CAS 51200-87-4 4,4-dimethyloxazolidine

### Products identified with PT 6 active substances in the Swedish Product Register

Active substances listed for PT 6 in the ECHA database were identified in the Swedish product register within different product categories/function codes. Preservatives are used in many different products during storage; thus, 129 function codes were identified as being relevant for PT 6 (see Table 34 in Annex 1).

For many product codes where it was unclear what the possible function of an active substance was, it was assumed that the active substance was added as preservative for storage, so that the product code list for active substances allocated to PT 6 is particularly long. This implies obviously, that the number of possible mistakes is higher for function codes allocated to this PT. Active substances can be added for other than biocidal purposes, or the purpose can belong to another PT. With the information available in the product register, only educated guesses can be made. Therefore, the information given has to be interpreted with caution.

Table 14 shows that 69 different active substances are used in products in Sweden, where it is assumed that they are added for preservation during storage, but only 23 of these actives are approved or are under review for PT 6. However, the active substances used in what is assumed to be PT 6 products in Sweden, may be added for another function than the biocidal function. These substances may be added as solvents, pH-regulators etc.

Furthermore, it should be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

*Table 14: Active substances identified in function codes in the Swedish Product Register assumed to be added as “Preservatives for products during storage” (PT 6). The substances are listed in ascending CAS number order.*

CAS no.	Chemical name	Function code	Function name	No. of products
10043-35-3	Boric acid	G05400	Galvano-technical agents, other	22
		G40100	Fertilizers	47
		L05300	Laboratory chemicals, other	18
		M15500	Surface treatment of metal, other	13
10222-01-2	Acetamide, 2,2-dibromo-2-cyano-	B20100	Binding agents for paints, adhesives etc.	11
		M05141	Paint and varnish - Water base - Other/ decorative - Interior	101
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior	59
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use	22
104-55-2	2-Propenal, 3-phenyl-	R10990	Cleaning/washing agents, other	11
		R30500	Raw materials for production of cosmetics etc	12
10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl-, methyl ester	M05142	Paint and varnish - Water base - Other/ decorative - Exterior	17
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use	10
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior	19

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>M05642</b>	Paint and varnish - Curing paint - Other/ decorative - Exterior	<b>15</b>
		<b>U05100</b>	Sealants	<b>40</b>
		<b>U05400</b>	Filling materials, other	<b>15</b>
<b>106-24-1</b>	2,6-Octadien-1-ol, 3,7-dimethyl-, (E)-	<b>B18100</b>	Car care products and boat care products	<b>14</b>
		<b>D20100</b>	Industry perfumes	<b>21</b>
		<b>D20300</b>	Odour agents, other	<b>42</b>
		<b>P10100</b>	Polishing agents for lacquers (car wax)	<b>12</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>28</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>31</b>
		<b>R30500</b>	Raw materials for production of cosmetics etc	<b>104</b>
		<b>S25500</b>	Rinsing agents (textiles)	<b>14</b>
<b>107-22-2</b>	Ethanedial	<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>36</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>23</b>
		<b>R30900</b>	Raw materials for production of paper	<b>10</b>
		<b>V15100</b>	Thickening agents	<b>37</b>
<b>1085-98-9</b>	Methanesulfenamide, 1,1-dichloro-N-((dimethylamino)sulfonyl)-1-fluoro-N-phenyl	<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>23</b>
<b>110-44-1</b>	2,4-Hexadienoic acid, (E,E)-	<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>23</b>
<b>111-30-8</b>	Pentanedial	<b>F05250</b>	Pigment pastes	<b>12</b>
		<b>F05990</b>	Colouring agents, other	<b>56</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>15</b>
		<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>32</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>12</b>
		<b>R10980</b>	Optical whiteners	<b>11</b>
		<b>R30900</b>	Raw materials for production of paper	<b>22</b>
<b>112926-00-8</b>	Silica gel, pptd., cryst.-free	<b>F05110</b>	Pigments to paint and printing inks	<b>122</b>
		<b>F05250</b>	Pigment pastes	<b>11</b>
		<b>F45300</b>	Fillers, other	<b>11</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>11</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>19</b>
		<b>M05241</b>	Paint and varnish - Volatile - Other/ decorative - Interior	<b>10</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>159</b>
		<b>M05249</b>	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autopaing)	<b>15</b>
		<b>M05442</b>	Paint and varnish - No thinner - Other/ decorative - Exterior	<b>10</b>
		<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>46</b>
		<b>M05541</b>	Paint and varnish - Powder based - Other/ decorative - Interior	<b>13</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		M05543	Paint and varnish - Powder based - Other/ decorative - Industrial use	12
		M05643	Paint and varnish - Curing paint - Other/ decorative - Industrial use	50
		M08100	Additives for paint and varnishes not mentioned elsewhere in the table	27
		O25400	Anti foaming agents, foamreducing agents	27
		R10970	Washing agents for textile (detergents)	23
		R30300	Raw materials for production of rubber products	36
		R30800	Raw materials for production of plastics	61
12179-04-3	Boron sodium oxide (B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub> ), pentahydrate	G40100	Fertilizers	27
122-99-6	Ethanol, 2-phenoxy-	B15310	In-can preservatives	24
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopa int)	13
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior	10
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)	16
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	33
		R10400	Cleaning/washing agents for dish washing	15
		R10970	Washing agents for textile (detergents)	21
		R10990	Cleaning/washing agents, other	43
		R30500	Raw materials for production of cosmetics etc	46
		S25500	Rinsing agents (textiles)	45
124-07-2	Octanoic acid	M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use	52
		M15500	Surface treatment of metal, other	13
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)	18
		R10990	Cleaning/washing agents, other	36
124-38-9	Carbon dioxide	B18100	Car care products and boat care products	16
		M15400	Rust removers	13
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)	40
		R10990	Cleaning/washing agents, other	48
		S75400	Welding products, other	13
1303-96-4	Borax [ISO]	G40100	Fertilizers	15
		M15500	Surface treatment of metal, other	12
1305-62-0	Calcium hydroxide	R20900	Anti-corrosion materials, other	12
		R30300	Raw materials for production of rubber products	41
		R30800	Raw materials for production of plastics	17
		S60200	Stabilizers, other	22
		U05100	Sealants	12
		U05200	Filling	28
1305-78-8	Calcium oxide	R30300	Raw materials for production of rubber products	294
		R30700	Raw materials for production of metals	11
		R30800	Raw materials for production of plastics	50
		S65100	Moulding compounds	23

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>U05100</b>	Sealants	<b>14</b>
		<b>U05300</b>	Putty	<b>24</b>
		<b>U05400</b>	Filling materials, other	<b>11</b>
<b>1317-38-0</b>	Copper oxide	<b>P15500</b>	Catalysts	<b>15</b>
<b>1317-39-1</b>	Copper oxide	<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>34</b>
		<b>M05643</b>	Paint and varnish - Curing paint - Other/ decorative - Industrial use	<b>22</b>
		<b>T15335</b>	Printing inks - No thinner - Flexocolour (aniline dye) - Other	<b>25</b>
<b>13463-41-7</b>	Zinc, bis(1-hydroxy-2(1H)-pyridinethionato-O,S)-, (T-4)-	<b>F05250</b>	Pigment pastes	<b>23</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>15</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>60</b>
		<b>U05100</b>	Sealants	<b>11</b>
<b>137-26-8</b>	Thioperoxydicarbonic diamide, tetramethyl-	<b>R30300</b>	Raw materials for production of rubber products	<b>339</b>
<b>143-07-7</b>	Dodecanoic acid	<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>47</b>
		<b>R30500</b>	Raw materials for production of cosmetics etc	<b>12</b>
<b>24634-61-5</b>	2,4-Hexadienoic acid, potassium salt, (E,E)-	<b>M15400</b>	Rust removers	<b>21</b>
		<b>P15500</b>	Catalysts	<b>17</b>
		<b>R10350</b>	Lime deposit (calcium) remover	<b>25</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>13</b>
		<b>R30500</b>	Raw materials for production of cosmetics etc	<b>25</b>
<b>2527-58-4</b>	Benzamide, 2,2'-dithiobis[N-methyl-	<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>117</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>88</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>22</b>
<b>2634-33-5</b>	1,2-Benzisothiazol-3(2H)-one	<b>A60100</b>	Dressing agents (glazing agents, polishing agents)	<b>13</b>
		<b>B15310</b>	In-can preservatives	<b>49</b>
		<b>B18100</b>	Car care products and boat care products	<b>46</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>378</b>
		<b>B20300</b>	Binding agents, other	<b>40</b>
		<b>D20300</b>	Odour agents, other	<b>16</b>
		<b>F05110</b>	Pigments to paint and printing inks	<b>141</b>
		<b>F05250</b>	Pigment pastes	<b>166</b>
		<b>F05990</b>	Colouring agents, other	<b>164</b>
		<b>F12100</b>	Coating agents	<b>15</b>
		<b>F32990</b>	Photographic chemicals, other	<b>13</b>
		<b>M05132</b>	Paint and varnish - Water base - Active corrosion inhibitor - Exterior	<b>10</b>
		<b>M05133</b>	Paint and varnish - Water base - Active corrosion inhibitor - Industrial use	<b>13</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>642</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>334</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>758</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	<b>298</b>
		<b>M05241</b>	Paint and varnish - Volatile - Other/ decorative - Interior	<b>24</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>14</b>
		<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>125</b>
		<b>M05449</b>	Paint and varnish - No thinner - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	<b>11</b>
		<b>O25200</b>	Dispersion agents (carriers)	<b>15</b>
		<b>O25300</b>	Emulsifiers	<b>10</b>
		<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>45</b>
		<b>O27900</b>	Surface treatment, other	<b>32</b>
		<b>P10100</b>	Polishing agents for lacquers (car wax)	<b>49</b>
		<b>P10150</b>	Polishing agents for leather (incl. shoe polish)	<b>28</b>
		<b>P10500</b>	Wax and other polishing preparations for floors	<b>46</b>
		<b>P10990</b>	Polishing agents, other	<b>26</b>
		<b>R10100</b>	Degreasers (cold degreasing, de-waxing, de-polishing)	<b>13</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>69</b>
		<b>R10160</b>	Auto shampoo	<b>19</b>
		<b>R10400</b>	Cleaning/washing agents for dish washing	<b>29</b>
		<b>R10970</b>	Washing agents for textile (detergents)	<b>38</b>
		<b>R10980</b>	Optical whiteners	<b>11</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>84</b>
		<b>R30800</b>	Raw materials for production of plastics	<b>10</b>
		<b>R30900</b>	Raw materials for production of paper	<b>26</b>
		<b>S25500</b>	Rinsing agents (textiles)	<b>23</b>
		<b>T15121</b>	Printing inks - Water base - Rotogravure - Paper/ cardboard/ paperboard	<b>24</b>
		<b>U05100</b>	Sealants	<b>51</b>
		<b>U05200</b>	Filling	<b>317</b>
		<b>U05300</b>	Putty	<b>19</b>
		<b>V15100</b>	Thickening agents	<b>31</b>
<b>26530-20-1</b>	3(2H)-Isothiazolone, 2-octyl-	<b>F05110</b>	Pigments to paint and printing inks	<b>29</b>
		<b>F05250</b>	Pigment pastes	<b>115</b>
		<b>F05990</b>	Colouring agents, other	<b>17</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>61</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>111</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>42</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	<b>26</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>43</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>20</b>
		<b>U05200</b>	Filling	<b>48</b>
<b>2682-20-4</b>	3(2H)-Isothiazolone, 2-methyl-	<b>B15310</b>	In-can preservatives	<b>39</b>
		<b>B18100</b>	Car care products and boat care products	<b>50</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>349</b>
		<b>B20300</b>	Binding agents, other	<b>39</b>
		<b>B35200</b>	Softners	<b>15</b>
		<b>F05110</b>	Pigments to paint and printing inks	<b>127</b>
		<b>F05250</b>	Pigment pastes	<b>279</b>
		<b>F05990</b>	Colouring agents, other	<b>126</b>
		<b>F12100</b>	Coating agents	<b>16</b>
		<b>F32990</b>	Photographic chemicals, other	<b>11</b>
		<b>I05500</b>	Impregnation agents, other	<b>25</b>
		<b>L05100</b>	Reagents	<b>22</b>
		<b>L05300</b>	Laboratory chemicals, other	<b>22</b>
		<b>M05132</b>	Paint and varnish - Water base - Active corrosion inhibitor - Exterior	<b>13</b>
		<b>M05133</b>	Paint and varnish - Water base - Active corrosion inhibitor - Industrial use	<b>12</b>
		<b>M05139</b>	Paint and varnish - Water base - Active corrosion inhibitor - Other (including road-, art-, furniture-, autpaint)	<b>10</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>597</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>282</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>473</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autpaint)	<b>122</b>
		<b>M05241</b>	Paint and varnish - Volatile - Other/ decorative - Interior	<b>23</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>26</b>
		<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>76</b>
		<b>M08100</b>	Additives for paint and varnishes not mentioned elsewhere in the table	<b>14</b>
		<b>O25200</b>	Dispersion agents (carriers)	<b>20</b>
		<b>O25300</b>	Emulsifiers	<b>12</b>
		<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>64</b>
		<b>O25500</b>	Surface active agents, other	<b>15</b>
		<b>O27900</b>	Surface treatment, other	<b>16</b>
		<b>P10100</b>	Polishing agents for lacquers (car wax)	<b>40</b>
		<b>P10150</b>	Polishing agents for leather (incl. shoe polish)	<b>27</b>
		<b>P10500</b>	Wax and other polishing preparations for floors	<b>36</b>
		<b>P10990</b>	Polishing agents, other	<b>32</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>48</b>
		<b>R10160</b>	Auto shampoo	<b>19</b>
		<b>R10400</b>	Cleaning/washing agents for dish washing	<b>32</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>R10970</b>	Washing agents for textile (detergents)	<b>20</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>87</b>
		<b>R30900</b>	Raw materials for production of paper	<b>44</b>
		<b>T15121</b>	Printing inks - Water base - Rotogravure - Paper/ cardboard/ paperboard	<b>24</b>
		<b>U05100</b>	Sealants	<b>53</b>
		<b>U05200</b>	Filling	<b>85</b>
		<b>U05300</b>	Putty	<b>21</b>
		<b>V15100</b>	Thickening agents	<b>32</b>
<b>28159-98-0</b>	1,3,5-Triazine-2,4-diamine, N-(1,1-dimethylethyl)-N'-(cyclopropyl)-6-(methylthio)-	<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>14</b>
<b>330-54-1</b>	Urea, N'-(3,4-dichlorophenyl)-N,N-dimethyl-	<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>14</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>55</b>
		<b>M05642</b>	Paint and varnish - Curing paint - Other/ decorative - Exterior	<b>16</b>
<b>34123-59-6</b>	Urea, N,N-dimethyl-N'-[4-(1-methylethyl)phenyl]-	<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>22</b>
<b>3586-55-8</b>	Methanol, [1,2-ethanediylbis(oxy)]bis-	<b>B15310</b>	In-can preservatives	<b>10</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>24</b>
		<b>F05110</b>	Pigments to paint and printing inks	<b>11</b>
		<b>F05250</b>	Pigment pastes	<b>20</b>
		<b>G40100</b>	Fertilizers	<b>11</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>46</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>26</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>22</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autpaint)	<b>14</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>10</b>
		<b>U05100</b>	Sealants	<b>12</b>
<b>4719-04-4</b>	1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>10</b>
<b>50-00-0</b>	Formaldehyde	<b>A60100</b>	Dressing agents (glazing agents, polishing agents)	<b>21</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>114</b>
		<b>B20200</b>	Binding agents for moulding sand	<b>24</b>
		<b>B20300</b>	Binding agents, other	<b>127</b>
		<b>F05110</b>	Pigments to paint and printing inks	<b>39</b>
		<b>F05250</b>	Pigment pastes	<b>72</b>
		<b>F05990</b>	Colouring agents, other	<b>23</b>
		<b>F10700</b>	Fixing agents, other	<b>15</b>
		<b>G05400</b>	Galvano-technical agents, other	<b>27</b>
		<b>H15500</b>	Hardeners, other	<b>23</b>
		<b>K20100</b>	Sequestering agents	<b>14</b>
		<b>L05300</b>	Laboratory chemicals, other	<b>29</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>140</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>70</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>98</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopa int)	<b>197</b>
		<b>M05233</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use	<b>507</b>
		<b>M05241</b>	Paint and varnish - Volatile - Other/ decorative - Interior	<b>24</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>16</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>424</b>
		<b>M05249</b>	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autopa int)	<b>20</b>
		<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>86</b>
		<b>M05639</b>	Paint and varnish - Curing paint - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopa int)	<b>10</b>
		<b>M05643</b>	Paint and varnish - Curing paint - Other/ decorative - Industrial use	<b>25</b>
		<b>M15500</b>	Surface treatment of metal, other	<b>16</b>
		<b>O25200</b>	Dispersion agents (carriers)	<b>13</b>
		<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>29</b>
		<b>O25500</b>	Surface active agents, other	<b>20</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>18</b>
		<b>R30300</b>	Raw materials for production of rubber products	<b>19</b>
		<b>R30900</b>	Raw materials for production of paper	<b>14</b>
		<b>R30990</b>	Raw materials, other	<b>23</b>
		<b>T15242</b>	Printing inks - Based on organic thinner - Offset printing - Metal	<b>15</b>
		<b>T15353</b>	Printing inks - No thinner - Serigraphic printing - Plastic	<b>15</b>
		<b>U05100</b>	Sealants	<b>25</b>
		<b>U05200</b>	Filling	<b>50</b>
		<b>U05300</b>	Putty	<b>10</b>
		<b>U05400</b>	Filling materials, other	<b>10</b>
<b>52-51-7</b>	1,3-Propanediol, 2-bromo-2-nitro-	<b>B15310</b>	In-can preservatives	<b>33</b>
		<b>B18100</b>	Car care products and boat care products	<b>34</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>132</b>
		<b>B20300</b>	Binding agents, other	<b>10</b>
		<b>F05110</b>	Pigments to paint and printing inks	<b>104</b>
		<b>F05250</b>	Pigment pastes	<b>45</b>
		<b>F05990</b>	Colouring agents, other	<b>29</b>
		<b>F12100</b>	Coating agents	<b>10</b>
		<b>I05500</b>	Impregnation agents, other	<b>15</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>366</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>199</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>179</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	<b>58</b>
		<b>O25100</b>	Wetting agents, Moisturizers	<b>13</b>
		<b>O25200</b>	Dispersion agents (carriers)	<b>15</b>
		<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>81</b>
		<b>O27900</b>	Surface treatment, other	<b>27</b>
		<b>P10100</b>	Polishing agents for lacquers (car wax)	<b>28</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>12</b>
		<b>R10160</b>	Auto shampoo	<b>12</b>
		<b>R10400</b>	Cleaning/washing agents for dish washing	<b>21</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>48</b>
		<b>R30900</b>	Raw materials for production of paper	<b>54</b>
		<b>S25990</b>	Rinsing agents, other	<b>10</b>
		<b>T15121</b>	Printing inks - Water base - Rotogravure - Paper/ cardboard/ paperboard	<b>34</b>
		<b>U05100</b>	Sealants	<b>21</b>
		<b>U05200</b>	Filling	<b>95</b>
<b>533-74-4</b>	2H-1,3,5-Thiadiazine-2-thione, tetrahydro-3,5-dimethyl-	<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>12</b>
<b>5395-50-6</b>	Imidazo[4,5-d]imidazole-2,5(1H,3H)-dione, tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)-	<b>F05250</b>	Pigment pastes	<b>36</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>96</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>61</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>101</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	<b>19</b>
		<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>17</b>
<b>55406-53-6</b>	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	<b>F05250</b>	Pigment pastes	<b>91</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>126</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>286</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>189</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	<b>18</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>40</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>13</b>
		<b>U05200</b>	Filling	<b>44</b>
<b>55965-84-9</b>	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	<b>A60100</b>	Dressing agents (glazing agents, polishing agents)	<b>17</b>
		<b>B15310</b>	In-can preservatives	<b>49</b>
		<b>B18100</b>	Car care products and boat care products	<b>33</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>243</b>
		<b>B20300</b>	Binding agents, other	<b>36</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>F05110</b>	Pigments to paint and printing inks	127
		<b>F05250</b>	Pigment pastes	169
		<b>F05990</b>	Colouring agents, other	68
		<b>F12100</b>	Coating agents	12
		<b>I05500</b>	Impregnation agents, other	21
		<b>L05200</b>	Indicators (pH-Indicators)	16
		<b>L05300</b>	Laboratory chemicals, other	26
		<b>M05132</b>	Paint and varnish - Water base - Active corrosion inhibitor - Exterior	13
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	588
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	293
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	409
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	269
		<b>M05241</b>	Paint and varnish - Volatile - Other/ decorative - Interior	20
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	26
		<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	51
		<b>M05642</b>	Paint and varnish - Curing paint - Other/ decorative - Exterior	15
		<b>M08100</b>	Additives for paint and varnishes not mentioned elsewhere in the table	15
		<b>M15500</b>	Surface treatment of metal, other	15
		<b>O25100</b>	Wetting agents, Moisturizers	11
		<b>O25200</b>	Dispersion agents (carriers)	23
		<b>O25400</b>	Anti foaming agents, foamreducing agents	55
		<b>O27900</b>	Surface treatment, other	28
		<b>P05100</b>	pH-regulating agents	10
		<b>P10100</b>	Polishing agents for lacquers (car wax)	21
		<b>P10500</b>	Wax and other polishing preparations for floors	21
		<b>P10990</b>	Polishing agents, other	15
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	12
		<b>R10160</b>	Auto shampoo	24
		<b>R10400</b>	Cleaning/washing agents for dish washing	11
		<b>R10990</b>	Cleaning/washing agents, other	48
		<b>R30900</b>	Raw materials for production of paper	57
		<b>R30990</b>	Raw materials, other	10
		<b>S25500</b>	Rinsing agents (textiles)	12
		<b>S25990</b>	Rinsing agents, other	11
		<b>S40500</b>	Anti-set-off agents, other	11
		<b>U05100</b>	Sealants	46
		<b>U05200</b>	Filling	342
		<b>U05300</b>	Putty	14
		<b>V15100</b>	Thickening agents	23
<b>60207-90-1</b>	1H-1,2,4-Triazole, 1-((2-(2,4-dichlorophenyl)-4-	<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	25

CAS no.	Chemical name	Function code	Function name	No. of products
	propyl-1,3-dioxolan-2-yl)methyl)-	<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>16</b>
<b>61790-53-2</b>	Kieselguhr	<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>14</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>16</b>
		<b>P15500</b>	Catalysts	<b>14</b>
<b>64-17-5</b>	Ethanol	<b>A05200</b>	Filtration media	<b>132</b>
		<b>A05250</b>	Ion exchanger	<b>12</b>
		<b>A40300</b>	Anti-freezing agents, other	<b>36</b>
		<b>B18100</b>	Car care products and boat care products	<b>45</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>50</b>
		<b>B20300</b>	Binding agents, other	<b>20</b>
		<b>B55300</b>	Fuels, other	<b>29</b>
		<b>B60200</b>	Fuel additives, other	<b>10</b>
		<b>D20300</b>	Odour agents, other	<b>25</b>
		<b>F05110</b>	Pigments to paint and printing inks	<b>328</b>
		<b>F05250</b>	Pigment pastes	<b>19</b>
		<b>F05990</b>	Colouring agents, other	<b>25</b>
		<b>H15500</b>	Hardeners, other	<b>10</b>
		<b>I05500</b>	Impregnation agents, other	<b>23</b>
		<b>L05300</b>	Laboratory chemicals, other	<b>33</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>41</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>33</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>72</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autpaint)	<b>21</b>
		<b>M05233</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use	<b>13</b>
		<b>M05239</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autpaint)	<b>18</b>
		<b>M05241</b>	Paint and varnish - Volatile - Other/ decorative - Interior	<b>20</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>11</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>457</b>
		<b>M05249</b>	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autpaint)	<b>32</b>
		<b>M05443</b>	Paint and varnish - No thinner - Other/ decorative - Industrial use	<b>11</b>
		<b>M05643</b>	Paint and varnish - Curing paint - Other/ decorative - Industrial use	<b>20</b>
		<b>M10200</b>	Graffiti removers	<b>10</b>
		<b>M15500</b>	Surface treatment of metal, other	<b>14</b>
		<b>O15100</b>	Solvents	<b>211</b>
<b>O25500</b>	Surface active agents, other	<b>12</b>		
<b>O27900</b>	Surface treatment, other	<b>15</b>		
<b>R10100</b>	Degreasers (cold degreasing, de-waxing, de-polishing)	<b>48</b>		

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>130</b>
		<b>R10160</b>	Auto shampoo	<b>13</b>
		<b>R10250</b>	Glass- and window cleaner (window polish)	<b>50</b>
		<b>R10400</b>	Cleaning/washing agents for dish washing	<b>29</b>
		<b>R10500</b>	Spot (stain) removers	<b>10</b>
		<b>R10700</b>	Windscreen washing agents	<b>127</b>
		<b>R10970</b>	Washing agents for textile (detergents)	<b>50</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>209</b>
		<b>R20100</b>	Underseal materials, incl. cavity seals	<b>11</b>
		<b>R20900</b>	Anti-corrosion materials, other	<b>15</b>
		<b>R30300</b>	Raw materials for production of rubber products	<b>10</b>
		<b>R30500</b>	Raw materials for production of cosmetics etc	<b>39</b>
		<b>R30800</b>	Raw materials for production of plastics	<b>28</b>
		<b>R30990</b>	Raw materials, other	<b>11</b>
		<b>S10100</b>	Writing ink	<b>26</b>
		<b>S25100</b>	Rinsing agents (for dish washing machines)	<b>14</b>
		<b>T15233</b>	Printing inks - Based on organic thinner - Flexocolour (aniline dye) - Plastic	<b>17</b>
		<b>U05100</b>	Sealants	<b>35</b>
		<b>U05200</b>	Filling	<b>30</b>
		<b>V15100</b>	Thickening agents	<b>12</b>
<b>64-18-6</b>	Formic acid	<b>F05990</b>	Colouring agents, other	<b>10</b>
		<b>L05300</b>	Laboratory chemicals, other	<b>10</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>28</b>
<b>64359-81-5</b>	3(2H)-Isothiazolone, 4,5-dichloro-2-octyl-	<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>54</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>86</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>14</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>22</b>
		<b>U05200</b>	Filling	<b>40</b>
<b>6440-58-0</b>	2,4-Imidazolidinedione, 1,3-bis(hydroxymethyl)-5,5-dimethyl-	<b>R10990</b>	Cleaning/washing agents, other	<b>13</b>
<b>65-85-0</b>	Benzoic acid	<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>10</b>
		<b>M05233</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use	<b>14</b>
		<b>M05239</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autpaint)	<b>15</b>
		<b>M05249</b>	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autpaint)	<b>13</b>
		<b>S25500</b>	Rinsing agents (textiles)	<b>29</b>
<b>67-63-0</b>	2-Propanol	<b>A40100</b>	De-icing agents	<b>13</b>
		<b>A40300</b>	Anti-freezing agents, other	<b>40</b>
		<b>A55100</b>	Anti-static agents	<b>14</b>
		<b>B18100</b>	Car care products and boat care products	<b>132</b>
		<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>19</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>B35200</b>	Softners	<b>14</b>
		<b>B55300</b>	Fuels, other	<b>16</b>
		<b>B60200</b>	Fuel additives, other	<b>19</b>
		<b>D20300</b>	Odour agents, other	<b>21</b>
		<b>F05110</b>	Pigments to paint and printing inks	<b>308</b>
		<b>F05250</b>	Pigment pastes	<b>191</b>
		<b>F05990</b>	Colouring agents, other	<b>13</b>
		<b>F15100</b>	Flotation agents	<b>18</b>
		<b>F50100</b>	Flocculating chemicals	<b>13</b>
		<b>G05400</b>	Galvano-technical agents, other	<b>15</b>
		<b>H15500</b>	Hardeners, other	<b>13</b>
		<b>I05100</b>	Leather impregnation agents	<b>15</b>
		<b>I05300</b>	Textile impregnation agents	<b>16</b>
		<b>K40100</b>	Contactors (electrical)	<b>12</b>
		<b>L05300</b>	Laboratory chemicals, other	<b>40</b>
		<b>L15100</b>	Flux agents for soldering	<b>27</b>
		<b>M05139</b>	Paint and varnish - Water base - Active corrosion inhibitor - Other (including road-, art-, furniture-, autpaint)	<b>40</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>149</b>
		<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>71</b>
		<b>M05143</b>	Paint and varnish - Water base - Other/ decorative - Industrial use	<b>33</b>
		<b>M05149</b>	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autpaint)	<b>10</b>
		<b>M05233</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use	<b>251</b>
		<b>M05239</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autpaint)	<b>39</b>
		<b>M05241</b>	Paint and varnish - Volatile - Other/ decorative - Interior	<b>16</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>10</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>251</b>
		<b>M05249</b>	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autpaint)	<b>68</b>
		<b>M05633</b>	Paint and varnish - Curing paint - Active corrosion inhibitor - Industrial use	<b>17</b>
		<b>M05643</b>	Paint and varnish - Curing paint - Other/ decorative - Industrial use	<b>20</b>
		<b>M15400</b>	Rust removers	<b>24</b>
		<b>M15500</b>	Surface treatment of metal, other	<b>14</b>
		<b>O15100</b>	Solvents	<b>126</b>
		<b>O25100</b>	Wetting agents, Moisturizers	<b>13</b>
		<b>O25200</b>	Dispersion agents (carriers)	<b>15</b>
		<b>O25300</b>	Emulsifiers	<b>14</b>
		<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>12</b>
		<b>O25500</b>	Surface active agents, other	<b>30</b>
		<b>O27900</b>	Surface treatment, other	<b>20</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>O30100</b>	Stove black polish	<b>24</b>
		<b>P10100</b>	Polishing agents for lacquers (car wax)	<b>33</b>
		<b>P10150</b>	Polishing agents for leather (incl. shoe polish)	<b>24</b>
		<b>P10500</b>	Wax and other polishing preparations for floors	<b>13</b>
		<b>P10990</b>	Polishing agents, other	<b>16</b>
		<b>P15500</b>	Catalysts	<b>12</b>
		<b>R10100</b>	Degreasers (cold degreasing, de-waxing, de-polishing)	<b>102</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>128</b>
		<b>R10160</b>	Auto shampoo	<b>39</b>
		<b>R10250</b>	Glass- and window cleaner (window polish)	<b>117</b>
		<b>R10350</b>	Lime deposit (calcium) remover	<b>33</b>
		<b>R10400</b>	Cleaning/washing agents for dish washing	<b>20</b>
		<b>R10500</b>	Spot (stain) removers	<b>16</b>
		<b>R10700</b>	Windscreen washing agents	<b>106</b>
		<b>R10970</b>	Washing agents for textile (detergents)	<b>31</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>382</b>
		<b>R15100</b>	Cracking indicators	<b>26</b>
		<b>R20200</b>	Corrosion inhibitors	<b>10</b>
		<b>R20900</b>	Anti-corrosion materials, other	<b>12</b>
		<b>R30500</b>	Raw materials for production of cosmetics etc	<b>13</b>
		<b>R30990</b>	Raw materials, other	<b>11</b>
		<b>S10100</b>	Writing ink	<b>14</b>
		<b>S25100</b>	Rinsing agents (for dish washing machines)	<b>26</b>
		<b>S25500</b>	Rinsing agents (textiles)	<b>105</b>
		<b>S40400</b>	Slip agents for sand moulding	<b>12</b>
		<b>S40500</b>	Anti-set-off agents, other	<b>21</b>
		<b>T20100</b>	Drying agents	<b>11</b>
		<b>U05100</b>	Sealants	<b>10</b>
		<b>V15100</b>	Thickening agents	<b>17</b>
<b>68038-70-0</b>	Bacillus subtilis	<b>R10130</b>	Drain Cleaners	<b>11</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>17</b>
<b>68391-01-5</b>	Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	<b>M15400</b>	Rust removers	<b>15</b>
		<b>R10350</b>	Lime deposit (calcium) remover	<b>17</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>18</b>
<b>68424-85-1</b>	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>12</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>61</b>
<b>68909-20-6</b>	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, reaction products with silica	<b>O25400</b>	Anti foaming agents, foamreducing agents	<b>16</b>
		<b>R30300</b>	Raw materials for production of rubber products	<b>198</b>
		<b>S65100</b>	Moulding compounds	<b>13</b>
<b>69-72-7</b>	Benzoic acid, 2-hydroxy-	<b>H15500</b>	Hardeners, other	<b>20</b>
<b>70161-44-3</b>	Glycine, N-(hydroxymethyl)-, monosodium salt	<b>R10990</b>	Cleaning/washing agents, other	<b>15</b>
<b>71-23-8</b>	1-Propanol	<b>F05110</b>	Pigments to paint and printing inks	<b>204</b>
		<b>F05250</b>	Pigment pastes	<b>86</b>

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>M05139</b>	Paint and varnish - Water base - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)	<b>15</b>
		<b>M05239</b>	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)	<b>12</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>13</b>
		<b>M05243</b>	Paint and varnish - Volatile - Other/ decorative - Industrial use	<b>16</b>
		<b>O15100</b>	Solvents	<b>12</b>
		<b>S10100</b>	Writing ink	<b>12</b>
<b>7173-51-5</b>	1-Decanaminium, N-decyl-N,N-dimethyl-, chloride	<b>F05250</b>	Pigment pastes	<b>20</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>13</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>32</b>
<b>731-27-1</b>	Methanesulfenamide, 1,1-dichloro-N-[(dimethylamino)sulfonyl]-1-fluoro-N-(4-methylphenyl)-	<b>M05142</b>	Paint and varnish - Water base - Other/ decorative - Exterior	<b>19</b>
		<b>M05242</b>	Paint and varnish - Volatile - Other/ decorative - Exterior	<b>100</b>
<b>7440-22-4</b>	Silver	<b>L15990</b>	Soldering agents, other	<b>13</b>
<b>75-21-8</b>	Oxirane	<b>F05110</b>	Pigments to paint and printing inks	<b>16</b>
		<b>O25300</b>	Emulsifiers	<b>13</b>
		<b>O25500</b>	Surface active agents, other	<b>25</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>10</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>21</b>
<b>7647-01-0</b>	Hydrochloric acid	<b>B18100</b>	Car care products and boat care products	<b>11</b>
		<b>B20300</b>	Binding agents, other	<b>13</b>
		<b>F05990</b>	Colouring agents, other	<b>15</b>
		<b>G05400</b>	Galvano-technical agents, other	<b>13</b>
		<b>L05250</b>	Nutritive medium	<b>17</b>
		<b>L05300</b>	Laboratory chemicals, other	<b>91</b>
		<b>M15100</b>	Metal staining agents	<b>10</b>
		<b>M15500</b>	Surface treatment of metal, other	<b>12</b>
		<b>P05100</b>	pH-regulating agents	<b>27</b>
		<b>R10350</b>	Lime deposit (calcium) remover	<b>33</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>67</b>
		<b>R30990</b>	Raw materials, other	<b>14</b>
		<b>7647-15-6</b>	Sodium bromide	<b>M05141</b>
<b>7681-52-9</b>	Hypochlorous acid, sodium salt	<b>B25300</b>	Bleaching agents, other, see also F32100	<b>10</b>
		<b>L05300</b>	Laboratory chemicals, other	<b>13</b>
		<b>R10150</b>	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	<b>12</b>
		<b>R10370</b>	Cleaning/washing agents for washing machines	<b>10</b>
		<b>R10400</b>	Cleaning/washing agents for dish washing	<b>16</b>
		<b>R10600</b>	Foam cleaning/washing agents	<b>26</b>
		<b>R10990</b>	Cleaning/washing agents, other	<b>98</b>
<b>7681-57-4</b>	Disulfurous acid, disodium salt	<b>B20100</b>	Binding agents for paints, adhesives etc.	<b>10</b>
		<b>G05400</b>	Galvano-technical agents, other	<b>10</b>
		<b>M05141</b>	Paint and varnish - Water base - Other/ decorative - Interior	<b>15</b>

CAS no.	Chemical name	Function code	Function name	No. of products
7722-84-1	Hydrogen peroxide	B25200	Bleaching agents for textiles	17
		B25300	Bleaching agents, other, see also F32100	21
		L05300	Laboratory chemicals, other	13
		M05141	Paint and varnish - Water base - Other/ decorative - Interior	10
		O27900	Surface treatment, other	10
		O40200	Oxidation agents, other	14
		R10990	Cleaning/washing agents, other	29
7727-37-9	Nitrogen	G40100	Fertilizers	19
		L05300	Laboratory chemicals, other	23
		S75400	Welding products, other	12
7758-99-8	Sulfuric acid, copper(2+) salt (1:1), pentahydrate	G40100	Fertilizers	32
7775-27-1	Peroxydisulfuric acid, disodium salt*	M05141	Paint and varnish - Water base - Other/ decorative - Interior	13
7783-20-2	Sulfuric acid diammonium salt	F50100	Flocculating chemicals	18
		G40100	Fertilizers	78
77-92-9	1,2,3-Propanetricarboxylic acid, 2-hydroxy-	B18100	Car care products and boat care products	11
		E10100	Electrolytes	12
		F50100	Flocculating chemicals	29
		G40100	Fertilizers	21
		L05300	Laboratory chemicals, other	18
		M15400	Rust removers	26
		M15500	Surface treatment of metal, other	11
		P05100	pH-regulating agents	14
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)	19
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	54
		R10350	Lime deposit (calcium) remover	53
		R10370	Cleaning/washing agents for washing machines	16
		R10400	Cleaning/washing agents for dish washing	46
		R10970	Washing agents for textile (detergents)	39
		R10990	Cleaning/washing agents, other	164
		R30500	Raw materials for production of cosmetics etc	17
S25100	Rinsing agents (for dish washing machines)	18		
S25500	Rinsing agents (textiles)	14		
U05200	Filling	13		
79-14-1	Acetic acid, hydroxy-	R10990	Cleaning/washing agents, other	19
79-33-4	Propanoic acid, 2-hydroxy-, (S)-	R10990	Cleaning/washing agents, other	35
886-50-0	1,3,5-Triazine-2,4-diamine, N-(1,1-dimethylethyl)-N'-ethyl-6-(methylthio)-	M05141	Paint and varnish - Water base - Other/ decorative - Interior	19
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior	53
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use	16

The active substances marked with shading are neither approved nor under review for use in PT 6; however, they might be added for another function than the biocidal function

## Conclusion

The contact to the producer of preservatives, contact to different trade organisations as well as the search in the Swedish Product Register illustrates that many different types of chemical products contain in-can preservatives and therefore qualify as being treated articles under the BPR. However, it is worth noting that 69 different active substances from the ECHA database are found in different chemical products in the Swedish Product Register, but only 23 of these are approved or are under review under PT 6. Some of the chemical products in the table above are not necessarily treated articles, as they only qualify as being treated articles if the active substances are added to display a biocidal function (e.g. preservation). For example, hydrogen peroxide in ‘oxidation agents’, is most probably not added to display a biocidal function, but merely for its oxidizing properties. Similarly, ethanol and 2-propanol may not always be used for their preserving properties, but for their properties as solvents. But not for all active substances lacking approval or being under review for PT 6 such an explanation is obvious. To be certain, the manufacturers or suppliers of the products listed in the product register would have to be asked. If the active substances are added with the intention of acting as in-can preservatives, approval should be sought for PT 6.

### 4.3.2 PT 7: Film preservatives

Active substances belonging to this group are used for the preservation of films or coatings by the control of microbial deterioration or algal growth in order to protect the initial properties of the surface of materials or objects such as paints, plastics, sealants, wall adhesives, binders, papers, art works. In contrast to PT 6 preservatives, preservatives belonging to PT 7 shall protect the product in question during the use-phase.

### Literature, internet search and contact to producers of preservatives

A literature and internet search has been performed on products containing active substances belonging to PT 7. According to the EU Commission (EU1 2014), incorporation of preservatives in chemical mixtures or articles belonging to PT 7 generally indicates an intended effect in the final goods and such articles would qualify as treated articles, as long as no claim is made. The type of products identified (and in some cases the identified active substance used) is listed in the Table 15 below. Furthermore, the information received from a producer of preservatives is listed in the table as well. All products listed in the table below are considered to be treated articles.

Table 15: Examples of treated goods within PT 7 identified in literature and on the internet

Product name (group)	Description	Claim	Active substance	Available in	Evaluation	Reference
Paint and primer	Paint	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Hobby paint	Hobby products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Glitter paint	Hobby products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Textile paints	Hobby products	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)
Glue	Adhesives	No	MI (methylisothiazolinone)	DK	TA	(Tordrup, et al. 2015)

Product name (group)	Description	Claim	Active substance	Available in	Evaluation	Reference
Adhesives	Adhesives	No	BIT <sup>23</sup> , MIT <sup>24</sup>	DE	TA	Producer of preservatives
Paints	Paints	No	BIT	DE	TA	Producer of preservatives
Paints	Paints	No	BIT + EDDM <sup>25</sup>	RO	TA	Producer of preservatives
Paints	Paints	No	CIT/MIT <sup>26</sup> , Mg-/Cu-Salt	CZ, F, GR	TA	Producer of preservatives
Paints	Paints	No	CIT/MIT, Mg-Salts	S, SLO	TA	Producer of preservatives
Paints	Paints	No	CIT/MIT, bronopol	DE	TA	Producer of preservatives
Paints	Paints	No	CIT/MIT, EDDM	RO, GR, I, DE	TA	Producer of preservatives
Paints	Paints	No	IPBC <sup>27</sup> + 2-phenoxy-ethanol	DE	TA	Producer of preservatives
Paints	Paints	No	BIT, MIT	DE, F, I, GR	TA	Producer of preservatives
Paints	Paints	No	BIT, MIT, DGH <sup>28</sup>	GR, I	TA	Producer of preservatives
Paints	Paints	No	BIT + MIT + NaPT	RO, CZ, GR	TA	Producer of preservatives

<sup>23</sup> 1,2-benzisothiazol-3(2H)-one

<sup>24</sup> 2-methyl-2H-isothiazolin-3-one (or also abbreviated MI)

<sup>25</sup> Ethylene glycol bis(hydroxymethyl)ether

<sup>26</sup> CIT/MIT is the reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7], and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

<sup>27</sup> Iodopropynyl butylcarbamate

<sup>28</sup> n-dodecylguanidine hydrochloride

Product name (group)	Description	Claim	Active substance	Available in	Evaluation	Reference
Paints	Paints	No	OIT <sup>29</sup>	DE	TA	Producer of preservatives
Filler	Filler	No	BIT + MIT + Na-Pyrithione <sup>30</sup>	DE	TA	Producer of preservatives
Grout whitener	Chemical product	"prevents mildew grow"	BIT, MIT, bronopol	DE	BP	(Smolka and Bradish 2013)

### Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 7 "Film preservatives":

- 31 different active substances are listed under PT 7. Of these are
  - 3 substances approved
  - 26 substances are under review
  - 2 substances not approved
    - § CAS 312600-89-8 Cu-HDO
    - § CAS 3380-34-5 Triclosan

### Products identified with PT 7 active substances in the Swedish Product Register

Active substances listed for PT 7 in the ECHA database were identified in the Swedish product register within the product categories/function codes listed below. 8 function codes were identified as being relevant for PT 7 (see Table 34 in Annex 1). Again, the assumption that the active substances identified are added with the purpose of preservation during use (PT 7), is only a educated guess. To be sure, whether the function is preservation during use, or no biocidal at all, the manufacturers/suppliers of the products would have to be asked. Whether or not the chemical products qualify as being biocidal products or treated articles depends on whether a claim is made. Products listed under function code B15320 are biocidal products.

Table 16 shows that 29 different active substances are used in products in Sweden where it is assumed that they are added for preservation during use (PT 7), but only 2 are approved or are under review under PT 7. However, the active substances used in what is assumed to be PT 7 products in Sweden, may be added for another function than the biocidal function. These substances may be added as solvents, pH-regulators etc.

Furthermore, it should be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

<sup>29</sup> octhilinone

<sup>30</sup> 2-Pyridinethiol-1-oxide sodium salt

Table 16: Active substances identified in function codes in the Swedish Product Register assumed to be added as “Film preservatives” (PT 7). The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
10043-35-3	Boric acid	L10101	Adhesives - Water based - Industrial use	18
112926-00-8	Silica gel, pptd., cryst.-free	G30200	Flooring materials, other	22
1303-96-4	Borax [ISO]	L10101	Adhesives - Water based - Industrial use	11
1338-23-4	2-Butanone, peroxide	H15400	Curing agents, plastic	62
2634-33-5	1,2-Benzisothiazol-3(2H)-one	G30200	Flooring materials, other	16
		L10101	Adhesives - Water based - Industrial use	204
		L10601	Adhesives - Hardener for adhesive - Industrial use	41
26530-20-1	3(2H)-Isothiazolone, 2-octyl-	B15320	Film preservatives	15
		L10101	Adhesives - Water based - Industrial use	13
2682-20-4	3(2H)-Isothiazolone, 2-methyl-	G30200	Flooring materials, other	16
		L10101	Adhesives - Water based - Industrial use	184
		L10601	Adhesives - Hardener for adhesive - Industrial use	31
35691-65-7	Pentanedinitrile, 2-bromo-2-(bromomethyl)-	L10101	Adhesives - Water based - Industrial use	12
3586-55-8	Methanol, [1,2-ethanediylbis(oxy)]bis-	L10101	Adhesives - Water based - Industrial use	18
50-00-0	Formaldehyde	L10101	Adhesives - Water based - Industrial use	104
		L10201	Adhesives - Based on organic thinners - Industrial use	13
		L10401	Adhesives - Powder - Industrial use	11
52-51-7	1,3-Propanediol, 2-bromo-2-nitro-	L10101	Adhesives - Water based - Industrial use	171
		L10601	Adhesives - Hardener for adhesive - Industrial use	12
55406-53-6	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	B15320	Film preservatives	22
55965-84-9	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	G30200	Flooring materials, other	14
		L10101	Adhesives - Water based - Industrial use	133
		L10601	Adhesives - Hardener for adhesive - Industrial use	26
64-17-5	Ethanol	G30200	Flooring materials, other	14
		L10101	Adhesives - Water based - Industrial use	34
		L10201	Adhesives - Based on organic thinners - Industrial use	27
64-18-6	Formic acid	L10601	Adhesives - Hardener for adhesive - Industrial use	27
64359-81-5	3(2H)-Isothiazolone, 4,5-dichloro-2-octyl-	B15320	Film preservatives	11
67-63-0	2-Propanol	I05300	Textile impregnation agents	16
		L10101	Adhesives - Water based - Industrial use	10
		L10201	Adhesives - Based on organic thinners - Industrial use	15
69-72-7	Benzoic acid, 2-hydroxy-	H15400	Curing agents, plastic	10
7722-84-1	Hydrogen peroxide	H15400	Curing agents, plastic	56

The active substances marked with shading are neither approved nor under review for use in PT 7; however, they might be added for another function than the biocidal function

## **Conclusion**

The contact to producers of preservatives as well as the search in the Swedish Product Register illustrate that many different types of chemical products (adhesives, curing agents, flooring materials etc.) contain film preservatives. If these products do not make a claim, they are defined as treated articles under the BPR. It is worth noting that 29 active substances registered in the ECHA database are found in different chemical products in the Swedish Product Register assumed to be added as film-preservatives, but only 2 of these are approved or are under review for PT 7. It is difficult, however, to distinguish between preservation during storage and preservation during use; some of the active substances might have been added as an in-can preservative, others might be added with no biocidal intention at all. Some of the substances can have other functions such as e.g. solvents. If they are added with the intention of acting as biocides, however, approval should be sought for the PT in question.

### **4.3.3 PT 8: Wood preservatives**

Products in this group contain active substances that are used for the preservation of wood, from and including the saw-mill stage, or wood products by the control of wood-destroying or wood-disfiguring organisms, including insects. This product type includes both preventive and curative products.

#### **Example products available on the market**

A literature and internet search has been performed on products belonging to PT 8. By definition wood protection products are biocidal products. Wood preservatives generally are expected to be used more by professionals, but there are a number of products authorised for consumer use on the market. This trend is confirmed by a report by the Danish EPA which states that the chemical products (biocidal products) found in the Danish Product Register are used industrially, but some wood preservatives are distributed for use on the finished wood articles for both professional and private users (Danish EPA 2013).

The products identified are listed in Table 17 below. None of the identified four specific products listed in Table 17 is authorised as a biocidal product, though they make a claim for wood protection. These products are on the market illegally. Any treated wood which can be bought in do-it-yourself markets is an example of a treated article with wood preservatives.

Table 17: Examples of biocidal products and treated articles containing active substances belonging to PT 8 identified in literature and on the internet

Product name (group)	Description	Claim	Active substance	Available in	Evaluation	Reference
Lakrol træbeskyttelse	Wood protection paint	wood protection	-	DK	BP	Annex 2
Viking HD vandig træbeskyttelse	Wood protection paint	wood protection	-	DK	BP	Annex 2
Pinotex Classic	Alcyd based wood protection product	wood protection	-	DK	BP	Annex 2
GORI Stop Svamp og Insekt 22/7	Wood preservative for treatment of mould fungus and insects	"treatment of mould fungus, insects, and deathwatch beetles"	Propiconazol 0,6% w/w (4,83 g/l). Tebuconazol 0,2% w/w (1,60 g/l). 3-Iodo-2-propynyl-butyl-carbammat (IPBC) 0,2 %-w/w (1,60 g/l). Permethrin 0,2% w/w (1,60 g/l).	DK	BP	Annex 2
Pressure impregnated wood for the do-it-yourself people		Wood protection	-	EU	TA	

### Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 8 "Wood preservatives":

- 45 different active substances are listed under PT 8. Of these are
  - 38 substances approved
  - 7 substances are under review
  - 0 substances are not approved

### Products identified with PT 8 active substances in the Swedish Product Register

Active substances listed for PT 8 in the ECHA database were expected to be found in the Swedish product register within the following product categories/function codes:

- B15315 Wood preservatives
- I05400 Wood impregnating agents, wood preserving agents, for biocides report under B15315

When a product is listed under function code B15315, it is considered a biocidal product. When products are listed under function code I05400, the allocation is less clear, but as long as such products make a claim for some type of biocidal function, they are biocidal products as well.

Table 18 shows that 5 different active substances are used in products in Sweden where it is assumed that the active substances are used for wood protection, and all are approved or currently under review for PT 8. It should, however, be noted that only active substances used in 10 or more products for each function code have been listed. It is therefore expected that more than five active substances are used as wood preservatives on the Swedish market.

Table 18: Active substances identified for use in function codes in the Swedish Product Register assumed to be added as “Wood preservatives” (PT 8). The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
10043-35-3	Boric acid	B15315	Wood preservatives	12
12069-69-1	Copper, [carbonato(2-)]dihydroxydi-	B15315	Wood preservatives	11
55406-53-6	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	B15315	Wood preservatives	20
55406-53-6	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	I05400	Wood impregnation agents, wood preserving agents, for biocides report under B15315	14
60207-90-1	1H-1,2,4-Triazole, 1-((2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl)methyl)-	B15315	Wood preservatives	25
731-27-1	Methanesulfenamide, 1,1-dichloro-N-[(dimethylamino)sulfonyl]-1-fluoro-N-(4-methylphenyl)-	I05400	Wood impregnation agents, wood preserving agents, for biocides report under B15315	10

## Conclusion

Some examples of treated articles belonging to PT 8 were found in the internet search. In fact most impregnated wood bought at do-it-yourself stores will be considered as treated articles. The chemicals identified in the Swedish Product Register, which are used to impregnate wood, will be considered as biocidal products.

### 4.3.4 PT 9: Fibre, leather, rubber and polymerised materials preservatives

Active substances belonging to this group are used for the preservation of fibrous or polymerised materials, such as leather, rubber or paper or textile products by the control of microbiological deterioration. This product-type includes biocidal products which antagonise the settlement of micro-organisms on the surface of materials and therefore hamper or prevent the development of odour and/or offer other kinds of benefits.

### Literature, internet search and contact to producers of preservatives

A literature and internet search has been performed on treated goods containing active substances belonging to PT 9. The number of treated goods identified is huge. Several specific products with specific claims have been listed and can be found in Table 36 in Annex 2 as well as in different literature such as a Swedish survey on biocide treated article (Swedish Chemical Agency 2012) and a German study on treated articles (Smolka and Bradish 2013).

The following types of products have been identified:

- Clothing
- Other textile products
- Bathroom accessories
- Cleaning supplies
- Child care articles

The type of products identified (and in some cases the active substance used) is listed in Table 19 below. Furthermore, the information received from a producer of preservatives has been

integrated into the table. It should be noted that the majority of products listed below in Table 19 are considered to be treated articles. For this reason the “evaluation” column has been left out in the table below. However, some products are borderline cases, such as e.g. toilet brush with added silver with antimicrobial properties. This product has therefore been selected for evaluation of borderline cases by the Member States (see chapter 7 “Evaluation of products”).

It is often difficult to distinguish between a claim belonging to PT 2 or to PT 9, as claims usually are very unspecific. The claim “antibacterial” or “antimicrobial” suggests a health benefit, but it can also only be an indication that the textile in question is treated against odour. Thus, some of the articles listed below could likewise be listed as containing an active belonging to PT 2.

Table 19: Examples of treated articles within PT 9 identified in literature and on the internet

Product group	Material	Claim	Active substance	Available in	Reference
<b><i>Clothing</i></b>					
Textile clothing	Textiles	No	See details in Table 20	DK, Europe, world wide	(Kjølholt, et al. 2014)
Sportswear	Textiles	Often “antibacterial” or “antiodour”	Mainly silver	DK, SE, DE, Europe	See Annex 2, (Swedish Chemical Agency 2012), (Smolka and Bradish 2013), (Danish EPA, Survey of biocidal products in Denmark. Environmental Project No. 1486 2013)
Underwear	Textiles				
Shoe soles	Textiles				
Hats	Textiles				
Gloves	Textiles				
Socks	Textiles				
Comprehension hosiery	Textiles	Often “antibacterial” or “antiodour”		DE, Europe	(Smolka and Bradish 2013)
Pregnancy panties	Textiles		Silver		
Sweat band	Textiles				
<b><i>Other textile products</i></b>					
Mattresses	Textiles	Often “antibacterial”	Mainly silver	SE, DK, DE, Europe	(Swedish Chemical Agency 2012), (Smolka and Bradish 2013), Annex 2
Matress covers	Textiles				
Pillows	Textiles				
Bedding, blanket	Textiles				
Towels	Textiles				
Rugs	Textiles				
Furniture	Textiles				
Curtains	Textiles				
Fabric wall coverings	Textiles	Often “antibacterial”	Silver	DE	(Smolka and Bradish 2013)
Bathrobe	Textiles				
Carpeting	Textiles	“antibacterial”		DK	Annex 2, (Smolka and Bradish 2013)
Carpet tiles	Textiles				

Product group	Material	Claim	Active substance	Available in	Reference
PVC carpet backing	Plastic products	No	Triclosan (CAS 3380-34-5)	DK, Europe, world wide	(Hansen, Nilsson og Ravnholt Vium 2014)
Polyurethane foam used in furniture; fibrefill polymers used in products such as flooring, carpeting; back-coating of textiles used in upholstery and fabrics treated with a coating	Plastic products	No	Organic tin compounds: triphenyltin <sup>31</sup>	DK, Europe, world wide	(Hansen, Nilsson og Ravnholt Vium 2014)
Polyurethane foam; polymers used in products such as flooring, tiles and carpeting	Plastic products	No	Bis(tributyltin)oxide (TBTO), CAS 56-35-9	DK, Europe, world wide	(Hansen, Nilsson og Ravnholt Vium 2014)
<b>Bathroom accessories</b>					
Shower hoses	Plastics	Often “antibacterial”		SE, DE, DK	(Swedish Chemical Agency 2012), (Smolka and Bradish 2013), Annex 2
Tiles					
Bathtubs	Ceramics				
Toothbrushes	Plastics				
Shower curtains	Plastics, textiles				
Bath mats	Textiles, plastics				
Toilet brush	Plastics	Often “antibacterial”	Mainly silver	DE, DK	(Smolka and Bradish 2013), Annex 2
Toiletries bag	Plastics				
Flip-flops	Plastics, foam	“antibacterial”	Zinc pyrithione	DE	(Smolka and Bradish 2013)
Mat for wet floors	Plastic, rubber	“antibacterial and kills fungus”		DK	Annex 2
<b>Cleaning supplies</b>					
Scouring mops	Textiles, plastics	Often “antibacterial”		SE, DE	(Swedish Chemical Agency 2012), (Smolka and Bradish 2013)
Cleaning cloths	Textiles				
Sponges					
Washing balls	Plastics		Silver		
<b>Child care articles</b>					
Diapers		Often “antibacterial”		DE	(Smolka and Bradish 2013)
Baby mattresses	Textiles		Silver		
Nappy bags					
Nappy bin			Silver		
Baby sleeping bag	Textiles				
Baby bottle brush			Silver		

<sup>31</sup> The following CAS numbers are listed: 1461-22-9, 2155-70-6, 26354-18-7, 688-73-3

Product group	Material	Claim	Active substance	Available in	Reference
<b>Other articles</b>					
Boxing gloves	Plastics, textiles	“antibacterial”		DK	See Annex 2
Shower curtains, floor coverings, wall coverings, coated fabrics, marine upholstery, automotive vinyl trim, vinyl moulding, tarpaulins, awnings, gaskets, weather stripping, caulking, ditch liners and swimming pool liners, and textiles	Plastic products	No	Arsenic and arsenic compounds <sup>32</sup>	DK, Europe, world wide	(Hansen, Nilsson og Ravnholt Vium 2014)
Colourles and transparent PVC plastic articles	Plastic products	No	Organic tin compounds: tributyltin <sup>33</sup>	DK, Europe, world wide	(Hansen, Nilsson og Ravnholt Vium 2014)
Leather and textile processing	Leather Textiles	No	CIT/MIT <sup>34</sup> + EDDM <sup>35</sup>	DE	Producer of preservatives
Leather and textile processing	Leather Textiles	No	BIT <sup>36</sup> + EDDM	DE	Producer of preservatives
Leather and textile processing	Leather Textiles	No	CIT/MIT + bronopol	DE	Producer of preservatives
Leather and textile processing	Leather Textiles	No	OIT <sup>37</sup>	DE	Producer of preservatives
Polymer dispersions	Plastics	No	CIT/MIT, Mg-Salts	DE	Producer of preservatives
Polymer dispersions	Plastics	No	CIT/MIT + bronopol	DE	Producer of preservatives
Polymer dispersions	Plastics	No	BIT + MIT <sup>38</sup>	DE	Producer of preservatives
Polymer dispersions	Plastics	No	EDDM + OIT	DE	Producer of preservatives

### Active substances used in clothing

The Danish EPA has mapped the use of biocidal active substances used in clothing (Kjølholt, et al. 2014). The following biocidal active substances were identified for which it is known that they are used or have been used for the protection of textiles or during storage or transport (see Table 20). Most substances on this list have not been approved or are under review for use for PT 9.

<sup>32</sup> The following CAS numbers are listed: 7440-38-2; 7778-39-4; 58-36-6; 1303-28-2; 1327-53-3; 7784-40-9; 7784-42-1; 15606-95-8; etc.

<sup>33</sup> The following CAS numbers are listed: 76-63-1, 76-87-9, 379-52-2, 639-58-7, 76-87-9, 900-95-8, 56-35-9

<sup>34</sup> Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7], and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

<sup>35</sup> Ethylene glycol bis(hydroxymethyl)ether

<sup>36</sup> 1,2-benzisothiazol-3(2H)-one

<sup>37</sup> Octhilinone

<sup>38</sup> 2-methyl-2H-isothiazolin-3-one (also abbreviated MI)

Table 20: Biocidal active substances known to be used or have been used for the protection of textiles or during storage or transportation (Kjølholt, et al. 2014)

CAS number	Name of active substance	In the ECHA database of active substances (for PT 9 in brackets)
106-48-9	p-chlorophenol	No
108-43-0	m-chlorophenol	No
120-83-2	2,4-dichlorophenol	No
25167-83-3	Tetrachlorophenol	No
26530-20-1	2-octyl-2H-isothiazol-3-one (OIT)	Yes (yes)
2699-79-8	Sulfuryl difluoride	Yes (no)
463-58-1	Carbonyl sulfide	No
4901-51-3	2,3,4,5-Tetrachlorophenol	No
50-00-0	Formaldehyde	Yes (no)
58-90-2	2,3,4,6-Tetrachlorophenol	No
71-43-2	Benzene	No
74-83-9	Methyl bromide	No
74-90-8	Hydrogen cyanide	Yes (no)
7803-51-2	Phosphine	No
88-06-2	2,4,6-Trichlorophenol	No
90-43-7	Biphenyl-2-ol (o-phenylphenol)	Yes (yes)
91-20-3	Naphthalene	No
935-95-5	2,3,5,6-Tetrachlorophenol	No
95-57-8	o-chlorophenol	No

### Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 9 “Fibre, leather, rubber and polymerised materials preservatives”:

- 41 different active substances are listed under PT 9. Of these are
  - 2 substances approved
  - 37 substances are under review
  - 2 substances not approved
    - § CAS 312600-89-8 Cu-HDO
    - § CAS 3380-34-5 Triclosan

It should be noted that the literature search has identified the use of triclosan in some of the treated articles, but by a recent EU decision (EU3 2014) Triclosan has not been approved for this product type (and some of the other product types as well). Treated articles with Triclosan may not be placed on the market any more from 1 March 2017.

### Products identified with PT 9 active substances in the Swedish Product Register

Active substances listed for PT 9 in the ECHA database were identified in the Swedish product register within the product categories/function codes listed in Table 21. Seven function codes were identified as being relevant for PT 9 (see Table 34 in Annex 1):

- B15330 Fibre, leather, rubber and polymerised materials preservatives
- G30200 Flooring materials, other
- I05100 Leather impregnation agents

- I05300 Textile impregnation agents
- R30300 Raw materials for production of rubber products
- R30800 Raw materials for production of plastics
- R30900 Raw materials for production of paper

Table 21 shows that 14 different active substances are used in products in Sweden, where it is assumed that they are added for preservation of the material in question during the use-phase, but only 3 of these are approved or currently under review for PT 9. However, it is difficult to now, specifically for the raw materials, whether the actives are added for preservation in storage (PT 6) or for preservation of the finalised material, or even for other reasons. With the information available in the product register, only educated guesses can be made. Therefore, the information given has to be interpreted with caution. Furthermore, some of the active substances may have been added for another function than the biocidal function, such as solvents (which may be true for e.g. ethanol and 2-propanol). Furthermore, it should be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

*Table 21: Active substances identified in function codes in the Swedish Product Register assumed to be added as “Fibre, leather, rubber and polymerised materials preservatives”. The substances are listed in ascending CAS number order.*

CAS no.	Chemical name	Function code	Function name	No. of products
107-22-2	Ethanedial	R30900	Raw materials for production of paper	10
111-30-8	Pentanedial	R30900	Raw materials for production of paper	22
112926-00-8	Silica gel, pptd., cryst.-free	G30200	Flooring materials, other	22
		R30300	Raw materials for production of rubber products	36
		R30800	Raw materials for production of plastics	61
1305-62-0	Calcium hydroxide	R30300	Raw materials for production of rubber products	41
		R30800	Raw materials for production of plastics	17
1305-78-8	Calcium oxide	R30300	Raw materials for production of rubber products	294
		R30800	Raw materials for production of plastics	50
137-26-8	Thioperoxydicarbonic diamide, tetramethyl-	R30300	Raw materials for production of rubber products	339
2634-33-5	1,2-Benzisothiazol-3(2H)-one	G30200	Flooring materials, other	16
		R30800	Raw materials for production of plastics	10
		R30900	Raw materials for production of paper	26
2682-20-4	3(2H)-Isothiazolone, 2-methyl-	G30200	Flooring materials, other	16
		R30900	Raw materials for production of paper	44
50-00-0	Formaldehyde	R30300	Raw materials for production of rubber products	19
		R30900	Raw materials for production of paper	14
52-51-7	1,3-Propanediol, 2-bromo-2-nitro-	B15330	Fibre, leather, rubber and polymerised materials preservatives	14
		R30900	Raw materials for production of paper	54
55965-84-9	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone	B15330	Fibre, leather, rubber and polymerised materials preservatives	10
		G30200	Flooring materials, other	14
		R30900	Raw materials for production of paper	57
64-17-5	Ethanol	G30200	Flooring materials, other	14

CAS no.	Chemical name	Function code	Function name	No. of products
		<b>R30300</b>	Raw materials for production of rubber products	10
		<b>R30800</b>	Raw materials for production of plastics	28
<b>67-63-0</b>	2-Propanol	<b>I05100</b>	Leather impregnation agents	15
		<b>I05300</b>	Textile impregnation agents	16
<b>68909-20-6</b>	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, reaction products with silica	<b>R30300</b>	Raw materials for production of rubber products	198

The active substances marked with shading are neither approved nor under review for use in PT 9; however, they might be added for another function than the biocidal function

## Conclusion

The literature survey and the internet search have resulted in several examples of treated articles within PT 9. Most products identified are treated articles with a claim. Articles treated with PT 9 substances without a claim are much more difficult to identify. Producers of preservatives have, however, also been contacted and one of these producers could inform about preservatives being used in plastics, leather and textile products in general, but which kind of products exactly have been treated has not been further specified.

This market survey, hence, illustrates that many different types of consumer products contain preservatives belonging to PT 9 and hence qualify as being treated articles. However, the allocation to PT 9 is not always clear as claims as “antimicrobial” or “antibacterial” can point either to material protection or to disinfecting purposes. Claims have to be much clearer to distinguish between PT 2 and PT 9.

### 4.3.5 PT 10: Construction material preservatives

Active substances belonging to PT 10 are used for the preservation of masonry, composite materials, or other construction materials other than wood by the control of microbiological and algal attack.

#### Example products available on the market

A literature and internet search has been performed on products containing active substances belonging to PT 10. The type of products identified (and in some cases the identified active substance used) is listed in the Table 22 below. All identified products are evaluated to be treated articles and not biocidal products.

Table 22: Examples of treated articles within PT 10 identified in literature and on the internet

Product name/ group	Description	Claim	Active substance	Available in	Evaluation	Reference
Isolation material	Other materials	“antibacterial”		World wide	TA	Annex 2
Papiruld	Insulation made from recycled paper	Bor as protection against pests, rot and fungus	Boric acid, Disodium tetraborate decahydrate	DK	TA	Annex 2
Wewers wet lime mortar (5- 10% slaked lime)	Mortar	-	Calcium hydroxide	DK	TA	Annex 2
Insulation material for plumbing	Other materials	Often “antibacterial”		SE	TA	(Swedish Chemical Agency 2012)
Insulation material for plumbing	Other materials	Often “antibacterial”	-	SE	TA	(Swedish Chemical Agency 2012)
Isolation material	Other materials	“antibacterial”	-	World wide	TA	Annex 2

### Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 10 “Construction material preservatives”:

- 31 different active substances are listed under PT 10. Of these are
  - 2 substances approved
  - 26 substances are under review
  - 3 substances not approved
    - § CAS 312600-89-8 Cu-HDO
    - § CAS 112-05-0 Nonanoic acid, Pelargonic acid
    - § CAS 94266-48-5 Pine ext.

### Products identified with PT 10 active substances in the Swedish Product Register

Active substances listed for PT 10 in the ECHA database were identified in the Swedish product register with in the product categories/function codes listed in Table 23. Six function codes were identified as being relevant for PT 10 (see Table 34 in Annex 1):

- G30100 Joint-less floors
- G30200 Flooring materials, other
- H15100 Concrete hardeners
- K35100 Cement/contrete/mortar
- K35120 Fireproof cement
- K35900 Construction materials, other

Table 23 shows that 13 different active substances are used in products in Sweden, where it is assumed that they are added as preservation of building materials (PT 10), but only 3 of the active substances have been approved or are currently under review under PT 10. However, the active substances used in what is assumed to be PT 10 products in Sweden, may be added for another function than the biocidal function, such as e.g. solvents.

Furthermore, it should be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

*Table 23: Active substances identified in function codes in the Swedish product register assumed to be added as “Construction material preservatives” (PT 10). The substances are listed in ascending CAS number order.*

CAS no.	Chemical name	Function code	Function name	No. of products
10043-35-3	Boric acid	K35120	Fireproof cement	13
112926-00-8	Silica gel, pptd., cryst.-free	G30200	Flooring materials, other	22
1305-62-0	Calcium hydroxide	K35100	Cement/concrete/mortar	230
1305-78-8	Calcium oxide	K35100	Cement/concrete/mortar	58
		K35120	Fireproof cement	90
14548-60-8	Methanol, (phenylmethoxy)-	H15100	Concrete hardeners	12
2634-33-5	1,2-Benzisothiazol-3(2H)-one (BIT)	G30200	Flooring materials, other	16
		H15100	Concrete hardeners	10
		K35100	Cement/concrete/mortar	17
		K35900	Construction materials, other	10
26530-20-1	3(2H)-Isothiazolone, 2-octyl- (OIT)	H15100	Concrete hardeners	12
2682-20-4	3(2H)-Isothiazolone, 2-methyl-	G30200	Flooring materials, other	16
		H15100	Concrete hardeners	11
		K35100	Cement/concrete/mortar	15
50-00-0	Formaldehyde	H15100	Concrete hardeners	14
		K35100	Cement/concrete/mortar	31
		K35900	Construction materials, other	17
52-51-7	1,3-Propanediol, 2-bromo-2-nitro-	G30100	Joint-less floors	11
55965-84-9	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (Kathon, CIT/MIT)	G30100	Joint-less floors	10
		G30200	Flooring materials, other	14
		H15100	Concrete hardeners	15
		K35100	Cement/concrete/mortar	18
64-17-5	Ethanol	G30200	Flooring materials, other	14
69-72-7	Benzoic acid, 2-hydroxy-	G30100	Joint-less floors	26

The active substances marked with shading are neither approved nor under review for use in PT 10; however, they might be added for another function than the biocidal function

## Conclusion

All identified products are evaluated to be treated articles under PT 10. Most of the products, though, do not have consumer relevance.

### 4.3.6 PT 11: Preservatives for liquid-cooling and processing systems

Products in this group contain active substances that are used for the preservation of water or other liquids used in cooling and processing systems by the control of harmful organisms such

as microbes, algae and mussels. However, this group does not contain products used for the disinfection of drinking water or of water for swimming pools.

### **Example products available on the market**

A literature and internet search has been performed on products containing active substances belonging to PT 11. However, no products or treated articles have been identified under this product type for consumer use. As outlined in section 2.2 the only products considered as treated articles within this product type are individually sold processing liquids (EU1 2014). These type of products are, however, mainly expected to be available to professionals and not to consumers.

### **Searches in ECHA Biocidal Active Substances database**

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 11 “Preservatives for liquid-cooling and processing systems”:

- 51 different active substances are listed under PT 11. Of these are
  - 1 substance approved
  - 49 substances are under review
  - 1 substance not approved
    - § CAS 20667-12-3 Disilver oxide

### **Products identified with PT 11 active substances in the Swedish Product Register**

Active substances listed for PT 11 in the ECHA database were identified in the Swedish product register within the product categories/function codes listed in Table 24. Three function codes were identified as being relevant for PT 11 (see Table 34 in Annex 1):

- A40200 Cooling agents
- B15350 Preservatives for liquid-cooling and processing systems
- K55100 Cooling agents

Table 24 shows that 5 different active substances are used in products in Sweden, where it is assumed that they are used to preserve liquid-cooling and processing systems but only 3 of these have been approved and are currently under review. The active substances may, however, be added for another function than the biocidal function, e.g. as solvents. It should, furthermore, be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

The search in the Swedish Product Register therefore illustrates that preservatives are used in chemical products for liquid-cooling and processing systems, but it is not known whether such products are available to consumers. They are assumed primarily to be for professional/industrial use. Such information is, however, available on a product level in the Swedish Product Register, but has not been investigated further in this project.

Table 24: Active substances identified in function codes in the Swedish Product Register which are assumed to be added as preservatives for cooling or processing liquids. The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
10222-01-2	Acetamide, 2,2-dibromo-2-cyano-	B15350	Preservatives for liquid-cooling and processing systems	12
1303-96-4	Borax [ISO]	A40200	Cooling agents	15
52-51-7	1,3-Propanediol, 2-bromo-2-nitro-	B15350	Preservatives for liquid-cooling and processing systems	15
55965-84-9	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone (Kathon, CIT/MIT)	B15350	Preservatives for liquid-cooling and processing systems	17
67-63-0	2-Propanol	K55100	Cooling agents	11

The active substances marked with shading are neither approved nor under review for use in PT 11; however, they might be added for another function than the biocidal function

## Conclusion

The internet search has not identified any treated articles belonging to PT 11 for consumer use. The search in the Swedish Product Register illustrates that preservatives are used in chemical products for liquid-cooling and processing systems, but it is unknown whether such products are available to consumers. They are assumed primarily to be for professional/industrial use.

### 4.3.7 PT 12: Slimicides

Products in this group contains active substances that are used for the prevention or control of slime growth on materials, equipment and structures, used in industrial processes, e.g. on wood and paper pulp, porous sand strata in oil extraction. It is assumed that the main products under this group are products for professionals and not consumer products which are the focus of this study.

#### Example products available on the market

A literature and internet search has been performed on treated goods. However, no products or treated articles have been identified under this product type (PT 12). It is assumed, however, that these type of products are mainly directed towards professionals.

#### Contact to producers of preservatives

Contact to a producer of preservatives gave the following information:

- The mixture of the following preservatives are used in slimicides for paper:
  - CIT/MIT (reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7], and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1))
  - Mg-Salts

#### Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 12 “Slimicides”:

- 39 different active substances are listed under PT 12. Of these are
    - 2 substances approved
    - 36 substances are under review
    - 1 substance not approved
- § CAS 51200-87-4 4,4-dimethyloxazolidine

### Products identified with PT 12 active substances in the Swedish Product Register

Active substances listed for PT 12 in the ECHA database were identified in the Swedish product register within the product categories/function codes listed in Table 25. The only function code identified as being relevant for PT 12 was the code for the biocidal products (see Table 34 in Annex 1):

- B15360 Slimicides

Table 25 shows that 2 different active substances are used in products in Sweden in PT 12. Both are approved or are currently under review. It should, however, be noted that only results where active substances are used in 10 or more products for each function code are listed. There may very well be other active substances that are used in less than 10 products per function code.

*Table 25: Active substances identified as “Slimicides” (PT 12) in the Swedish Product Register. The substances are listed in ascending CAS number order.*

CAS no.	Chemical name	Function code	Function name	No. of products
10222-01-2	Acetamide, 2,2-dibromo-2-cyano-	B15360	Slimicides	16
111-30-8	Pentanedial (Glutaral)	B15360	Slimicides	11

The active substances marked with shading are neither approved nor under review for use in PT 12

### Conclusion

No treated articles have been identified under PT 12.

#### 4.3.8 PT 13: Working or cutting fluid preservatives

Products in this group contain active substances with the purpose to control microbial deterioration in fluids used for working or cutting metal, glass or other materials.

#### Example products available on the market

A literature and internet search has been performed on treated goods. However, no treated articles have been identified under this product type (PT 13).

#### Contact to producers of preservatives

Contact to a producer of preservatives gave the following information:

- The following combinations of preservatives are used in metal working fluids:
  - Mg-Salts and CIT/MIT (reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7], and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1))
  - MIT (2-methyl-2H -isothiazol-3-one)
  - CIT (5-chloro-2-methyl-4-isothiazolin-3-one)

### **Searches in ECHA Biocidal Active Substances database**

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 13 “Working or cutting fluid preservatives”:

- 30 different active substances are listed under PT 13. Of these are
  - 2 substances approved
  - 25 substances are under review
  - 3 substances not approved
    - § CAS 51200-87-4 4,4-dimethyloxazolidine
    - § CAS 111-30-8 Glutaral (Glutaraldehyde)
    - § CAS 7783-90-6 Silver chloride

### **Products identified with PT 13 active substances in the Swedish Product Register**

Active substances listed for PT 13 in the ECHA database were identified in the Swedish product register within the product categories/function codes listed in Table 26. 12 function codes were identified as being relevant for PT 13 (see Table 34 in Annex 1):

- B55100 Motor fuels
- K60160 Broaching oils
- K60200 Grinding fluids
- K60350 Fluids for modelling metal, other
- K60450 Fluids for clipping metal, other
- K60500 Cutting fluids, other
- S45110 Base oil
- S45150 Gear oils
- S45180 Motor oils
- S45200 Friction-reducing additives
- S45250 Additiv to lubricating agents
- S45300 Lubricants, other

Table 26 shows that 17 different active substances are used in products in Sweden, where it is assumed that they are added for preservation of the listed fluids, and that 9 of these active substances are either approved or currently under reveiw. It should, however, be noted that the active substances may be added for another function than the biocidal function, e.g. as solvents.

Futhermore, it should be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

Table 26: Active substances identified in function codes in the Swedish Product Register assumed to be “Working or cutting fluid preservatives” (PT 13). The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
10043-35-3	Boric acid	K60200	Grinding fluids	10
		K60350	Fluids for modelling metal, other	22
		K60450	Fluids for clipping metal, other	22
		K60500	Cutting fluids, other	29
122-99-6	Ethanol, 2-phenoxy-	K60350	Fluids for modelling metal, other	10
		K60500	Cutting fluids, other	18
124-07-2	Octanoic acid	S45150	Gear oils	17
124-38-9	Carbon dioxide	S45110	Base oil	34
		S45300	Lubricants, other	23
		S75400	Welding products, other	13
1305-62-0	Calcium hydroxide	K60350	Fluids for modelling metal, other	19
		K60500	Cutting fluids, other	13
		S45110	Base oil	29
		S45180	Motor oils	104
		S45200	Friction-reducing additives	14
		S45250	Additiv to lubricating agents	16
		S45300	Lubricants, other	53
2634-33-5	1,2-Benzisothiazol-3(2H)-one (BIT)	K60350	Fluids for modelling metal, other	25
		S45200	Friction-reducing additives	15
2682-20-4	3(2H)-Isothiazolone, 2-methyl- (MIT)	S45200	Friction-reducing additives	11
3586-55-8	Methanol, [1,2-ethanediylbis(oxy)]bis-	K60350	Fluids for modelling metal, other	10
		K60500	Cutting fluids, other	18
3811-73-2	2-Pyridinethiol, 1-oxide, sodium salt	K60160	Broaching oils	10
		K60200	Grinding fluids	11
		K60350	Fluids for modelling metal, other	28
		K60450	Fluids for clipping metal, other	17
		K60500	Cutting fluids, other	37
4299-07-4	1,2-Benzisothiazol-3(2H)-one, 2-butyl-	K60350	Fluids for modelling metal, other	11
55406-53-6	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	K60350	Fluids for modelling metal, other	25
		K60450	Fluids for clipping metal, other	27
		K60500	Cutting fluids, other	39
5625-90-1	Morpholine, 4,4'-methylenebis-	K60350	Fluids for modelling metal, other	13
		K60450	Fluids for clipping metal, other	13
		K60500	Cutting fluids, other	19
66204-44-2	Oxazolidine, 3,3'-methylenebis[5-methyl-	K60200	Grinding fluids	10
		K60350	Fluids for modelling metal, other	24
		K60450	Fluids for clipping metal, other	14
		K60500	Cutting fluids, other	28
67-63-0	2-Propanol	S45110	Base oil	36
		S45180	Motor oils	10
		S45200	Friction-reducing additives	15
		S45300	Lubricants, other	35
7440-50-8	Copper	S45110	Base oil	20
		S45300	Lubricants, other	26
75-21-8	Oxirane	K60500	Cutting fluids, other	11
7727-37-9	Nitrogen	S75400	Welding products, other	12

The active substances marked with shading are neither approved nor under review for use in PT 13; however, they might be added for another function than the biocidal function

## **Conclusion**

No treated goods belonging to PT 13 have been identified by literature and internet search. The search in the Swedish Product Register has identified several types of working and cutting fluids and illustrates that several of these contain some kind of preservative. Whether these products are mainly for industrial use or also for consumer use, is, however, not investigated further in this project.

## **4.4 Examples of goods or categories of goods containing biocidal active substances for main group 3: Pest control**

This main group includes different biocidal products for pest control. Treated articles are generally not expected to be found in this group. An exemption, however, are PT 18 and 19, where biocidal products can be used to treat articles. For this reason PT 14 - PT 17 and PT 20 are described together, whereas PT 18 and PT 19 are described separately below.

### **4.4.1 PT 14, PT 15, PT 16, PT 17 and PT 20**

These product types cover the following:

- PT 14 – Rodenticides: Products in this group contain active substances that are used for the control of mice, rats or other rodents, by means other than repulsion or attraction.
- PT 15 – Avicides: Products in this group contain active substances that are used for the control of birds, by means other than repulsion or attraction.
- PT 16 – Molluscicides, vermicides and products to control other arthropods: Products in this group contain active substances that are used for the control of molluscs, worms and invertebrates not covered by other product types, by means other than repulsion or attraction.
- PT 17 – Piscicides: Products under this group contain active substances that are used for the control of fish, by means other than repulsion or attraction.
- PT 20 – Control of other vertebrates: Products under this group contain active substances that are used for the control of vertebrates other than those already covered by the other product types of this main group, by means other than repulsion or attraction.

### **Example products available on the market**

A literature and internet search has been performed on products containing active substances belonging to PT 14 to PT 17 and PT 20. However, only biocide products have been identified under these product types, but no treated articles.

### **Searches in ECHA Biocidal Active Substances database**

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 14 “Rodenticides”:

- 15 different active substances are listed under PT 14. Of these are
  - 14 substances approved
  - 1 substances are under review
  - 0 substances not approved

PT 15 “Avicides”:

- One active substance (carbon dioxide) is listed under
- No active substance listed.

PT 17 “Piscicides”:

- One active substance (Rotenone) is listed under PT 17. This substance is currently under review.

PT 20 “Control of other vertebrates”:

- One active substance (aluminium phosphide) is listed under PT 20, and this substance has been approved.

### Products identified with PT 14, 15, 16, 17 and 20 active substances in the Swedish Product Register

The search in the Swedish Product Register has identified a number of biocidal products, all belonging to PT 14:

- B15510 Rodenticides

Table 27 shows that one active substance is used in products in Sweden in PT 14 and this active substances has been approved. Probably products with other active substances are on the market, but they are not shown if there are less than 10 products registered.

Table 27: Active substances identified for use in product types for “Rodenticides” (PT 14) in the Swedish Product Register.

CAS no.	Chemical name	Function code	Function name	No. of products
28772-56-7	2H-1-Benzopyran-2-one, 3-[3-(4'-bromo[1,1'-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-	B15510	Rodenticides	11

No products containing active substances belonging to PT 15, PT 16 PT 17 or PT 20 have been identified. Again, this is possibly due to the cut-off for a smaller number than 10 products.

### Conclusion

No treated articles belonging to PT 14, PT 15, PT 16, PT 17 and PT 20 have been identified in the literature search. The products identified in the product register are all rodenticides (PT 14). Further searches for active substances with less than 10 products have not been carried out, as these products were not the focus of this survey.

#### 4.4.2 PT 18: Insecticides, acaricides and products to control other arthropods

Products belonging to this group contain active substances that are used for the control of arthropods (e.g. insects, arachnids and crustaceans), by means other than repulsion or attraction.

### Example products available on the market

A literature and internet search has been performed to find goods containing active substances belonging to PT 18. One treated article and one biocidal product have been identified, listed in the table below. However, the pillow has also been listed as an example under PT 2, as it is difficult to see from the description if the pillow is meant for pest control or disinfecting purposes.

Table 28: Examples of treated articles within PT 18 identified in literature and on the internet

Product name/ group	Description	Claim	Active substance	Available in	Evaluation	Reference
Antikvalster och dammallergifri kudde original orthomagon	Pillow	"antibacterial"	-	SE, DE	TA	Annex 2
Myggenet	Mosquito net	"impregnated insecticidal treatment"	Deltamethrin (CAS 52918- 63-5)	DK	BP	Annex 2

### Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 18 "Insecticides, acaricides and products to control other arthropods":

- 61 different active substances are listed under PT 18. Of these are
  - 33 substances approved
  - 28 substances are under review
  - 0 substances not approved

### Products identified with PT 18 active substances in the Swedish Product Register

The search in the Swedish Product Register has identified no active substances (which are listed in the ECHA database and are used in more than 10 products).

### Conclusion

One treated article and one biocidal product containing active substances belonging to PT 18 have been identified in the literature search. The allocation of goods to treated articles or biocidal products is not always clear, as this depends on the primary biocidal function.

#### 4.4.3 PT 19: Repellents and attractants

Products under this group contains active substances that are repellents and attractants used to control harmful organisms (invertebrates such as fleas, vertebrates such as birds, fish, rodents), by repelling or attracting, including those that are used for human or veterinary hygiene either directly on the skin or indirectly in the environment of humans or animals.

### Example products available on the market

A literature and internet search has been performed on products containing active substances belonging to PT 19. A few treated goods have been identified under this product type (PT 19). These examples are listed in the table below.

Mosquito repellent clothing or other types of mosquito repellent equipment for humans can be found on the market; it is not entirely clear whether the repellent function is regarded as primary or not; that's why one example has been chosen for the evaluation by Member States of borderline cases (see chapter 7). Also an insect repellent horse blanket is has been chosen as another example.

Table 29: Examples of treated goods within PT 19 identified in literature and on the internet

Product name/ group	Description	Claim	Active substance	Available in	Evaluation	Reference
Mosquito Repellent Clothing	Mosquito Repellent Clothing	"mosquito repellent"	-	UK	TA?	Annex 2
Rambo Fly Buster Vamoose (AFAR0V)	Horse blanket	"insect repellent"	-	UK	BP?	Annex 2

### Searches in ECHA Biocidal Active Substances database

A search in the ECHA database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 19 "Repellents and attractants":

- 15 different active substances are listed under PT 19. Of these are
  - 8 substances approved
  - 7 substances are under review
  - 0 substances not approved

### Products identified with PT 19 active substances in the Swedish Product Register

The search in the Swedish Product Register has identified a number of biocidal products, all belonging to PT 19:

- B15560 Repellents and attractants

Table 30 shows that three different active substances are used in products in Sweden in PT 19. Two out of the three active substances identified are approved or are currently under review. However, the third active substance (ethanol) may be used with a function as solvent and not with a biocidal function.

Furthermore, it should be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

Table 30: Active substances identified “Repellents and attractants” (PT 19) biocidal products in the Swedish Product Register. The substances are listed in ascending CAS number order.

CAS no.	Chemical name	Function code	Function name	No. of products
106-24-1	2,6-Octadien-1-ol, 3,7-dimethyl-, (E)-	B15560	Repellents and attractants	10
119515-38-7	1-Piperidinecarboxylic acid, 2-(2-hydroxyethyl)-, 1-methylpropyl ester	B15560	Repellents and attractants	13
64-17-5	Ethanol	B15560	Repellents and attractants	21

The active substances marked with shading are neither approved nor under review for use in PT 19; however, they might be added for another function than the biocidal function

## Conclusion

A few treated articles belonging to PT 19 have been identified in the literature search, and it is expected that more similar treated articles exist on the market. Repellents and attractants do exist in the Swedish Product Register, but these chemical products are considered biocidal products.

## 4.5 Examples of goods or categories of goods containing biocidal active substances for main group 4: Other biocidal products

Products belonging to this main group are mainly biocidal products. Articles treated with substances belonging to this group are on the market and are also available for consumers (e.g. boats treated with antifouling and taxidermic preparations), but the focus of this study was not on this main group.

### 4.5.1 PT 21: Antifouling products and PT 22: Embalming and taxidermist fluids

Products containing active substances belonging to PT 21 are used to control the growth and settlement of fouling organisms (microbes and higher forms of plant or animal species) on vessels, aquaculture equipment or other structures used in water. Products containing active substances belonging to PT 22 are embalming and taxidermist fluids used for the disinfection and preservation of human and animal corpses, or parts.

### Searches in ECHA Biocidal Active Substances database

A search in the ECHA Biocidal Active Substances database (ECHA, Biocidal Active Substances 2015) gives the following information for PT 21 “Antifouling products”:

- 12 different active substances are listed under PT 21. Of these are
  - 6 substances approved
  - 6 substances are under review
  - 0 substances not approved

A similar search gives the following information for PT 22 “Embalming and taxidermist fluids”:

- Eight different active substances are listed under PT 22
- Of these are
  - 2 substances approved
  - 6 substances are under review
  - 0 substances not approved

### Products identified with PT 20 and 21 active substances in the Swedish Product Register

The search in the Swedish Product Register has identified the active substances listed in Table 31. One function code was identified as being relevant for PT 21 (see Table 34 in Annex 1):

- B15720 Antifouling

Table 31 shows that five different active substances are used in products in Sweden in PT 21 and four of them have been approved or are currently under review. However, the active substances may be added for another function than the biocidal function.

Futhremore, it should be noted that only results where active substances are used in 10 or more products for each function code are listed. There may be other active substances that are used in less than 10 products per function code.

*Table 31: Active substances identified for use in Antifouling products (PT 21) in the Swedish Product Register. The substances are listed in ascending CAS number order.*

CAS no.	Chemical name	Function code	Function name	No. of products
1111-67-7	Thiocyanic acid, copper(1+) salt	B15720	Antifouling	10
1317-38-0	Copper oxide	B15720	Antifouling	16
1317-39-1	Copper oxide	B15720	Antifouling	42
14915-37-8	Copper, bis(1-hydroxy-2(1H)-pyridinethionato-O,S)-	B15720	Antifouling	12
7440-50-8	Copper	B15720	Antifouling	27

The active substances marked with shading are neither approved nor under review for use in PT 21; however, they might be added for another function than the biocidal function.

No active substances belonging to PT 22 have been identified, which are used in at least 10 products.

### Conclusion

Articles treated with PT 21 or 22 products can be found on the market, but the treatment is “silent”, that is no claim is made. Antifouling biocidal products (PT 21) are listed in the Swedish Product Register. Products for embalming and taxidermist fluids (PT 22) are not listed in the Swedish Product Register.

## 4.6 Conclusions

This market survey on goods treated with biocides clearly illustrates that the market for treated goods is huge and that treated articles contain active substances that belong to many different product types. In this market survey, treated articles have mainly been identified within the following product types:

- PT 2 Disinfectants and algacides not intended for direct applications to humans or animals
- PT 3 Veterinary hygiene
- PT 4 Food and feed area
- PT 6 Preservatives for products during storage
- PT 7 Film preservatives
- PT 9 Fibre, leather, rubber and polymerised materials preservatives
- PT 10 Construction material preservatives
- PT 18 Insecticides, acaricides and products to control other arthropods
- PT 19 Repellents and attractants

All these products are evaluated to be treated articles, as the function of the active substances either is to disinfect the surface of the treated goods (main group 1: PT 2 to PT 4), to preserve the chemical content of the treated goods (main group 2: PT 6 to PT 10), or to perform pest control (main group 3: PT 18 and PT 19).

Products identified under the other product types are mainly biocidal products or non-consumer products or products outside the scope of the BPR.

### **Treated articles both with and without a claim are on the market**

The market survey of treated articles illustrates that both types of treated articles are available on the European market:

- Group A – without a claim – containing preservatives
- Group B – articles typically with a claim treated with disinfectants

The treated articles belonging to group A are chemical products such as paints, detergents etc. or articles like treated leather, wood, etc. where a preservative is needed in order to protect the content from microbial and algal development. The treated articles of group B could be both chemical products claiming to have properties such as “antibacterial” and consumer products made of plastics, textile, leather, rubber or other polymerised materials where they are sold with some kind of biocidal claim.

The market survey, however, also illustrates that the treated articles are the easiest ones to identify as the search for claims such as “antibacterial” or “antimicrobial” makes the search for such treated articles much easier. The use of preservatives in treated articles belonging to group A (without a claim) is not normally highlighted for these types of products so products identified in this group A have been identified through producers of preservatives and searches in the Swedish Product Register. The search in the Swedish Product Register points out that many chemical products contain the active substances listed in the ECHA database, but it is in general only a few of the active substances that have been approved or are under review for PT 6 and PT 7 where most of the treated articles without a claim (group A) have been identified. It is not possible to see whether the non-approved or not ‘under review’ substances are added with the intention of acting as biocides. Some of the substances can have other functions such as solvents. If they are added with the intention of acting as biocides, approval should be sought for these substances.

### **Borderline products identified**

In some cases, borderline examples have also been identified, i.e. examples of products where it is not clear if they are biocidal products or treated articles or even products that are regulated under the BPR.

For example, a textile cloth for cleaning of glass surfaces claims to be antibacterial. It is not clear (from the information available) whether such an article contains active substances that are used to clean the glass surface or it is only the more physical action of rubbing with the cloth on the glass that does the cleaning (i.e. outside the scope of the BPR). Such an example of a product has therefore been selected for a borderline example for evaluation by Member States (see chapter 7 “Evaluation of products”).

Other examples of borderline products identified are plastic products also with cleaning purposes such as a toilet cleaning brush, a dish washer brush and a toothbrush for dogs. Common for all these products are that they all claim to have antibacterial properties, and because of the products being cleaning products, the question is whether the antibacterial properties are claimed to be for the cleaning purpose or for the purpose of protecting the product itself from bacteria because it is used for cleaning. Such an example of a borderline product has therefore also been selected for evaluation by Member States. It is expected that the main function of the biocide added is to protect the product from bacteria and the products are therefore assessed to be treated articles.

Therefore the borderline products identified illustrate that it is not always clear whether a product should be considered as a biocidal product or a treated article. This issue is discussed further in chapter 7 “Evaluation of products”.

## **5 Evaluation of labelling requirements**

The BPR foresees that information about the active substances used for treatment of an article must be given on the label of the product if a claim is made, or if labelling requirements are part of the approval decision of the active substance. The label must provide the following information (article 58 (EU2 2014)):

- A statement that the treated article incorporates biocidal products.
- Where substantiated, the biocidal property attributed to the treated article.
- The name of all active substances contained in the biocidal products.
- The name of all nanomaterials contained in the biocidal products, followed by the word ‘nano’ in brackets.

Any relevant instructions for use, including any precautions to be taken because of the biocidal products with which a treated article was treated or which it incorporates.

Thus, one work-package of this study has also been to establish whether the identified treated articles comply with the labelling requirements.

### **5.1 Compliance with the labelling requirements of the treated articles identified in this study**

Alltogether, 103 different goods with a biocidal claim were identified. However, a considerable number of these goods are considered biocidal products, for which different labelling requirements apply. But 66 of the identified goods were considered treated articles. The labelling of the treated articles identified is listed in Table 36 in Annex 2. 54 (82%) of these treated articles do not give any information about the name of the active substances contained. In some cases (for 7 articles or 10%) only the trade name of the active substances and not the chemical name have been listed. Only for 7 of the treated articles (10%) the biocidal properties of the treated articles have been described. In general, there is no statement

that the treated article contains a biocide (an active substance) even though the active substance may be mentioned. Furthermore, relevant instructions for use, including any precautions to be taken, are in general missing. Other labelling requirement such as listing of nanomaterials are not included either – for one treated article it is specifically mentioned that there is no use of nanoparticles – otherwise nanomaterials are not mentioned.

## **5.2 Conclusions**

In conclusion, none of the goods listed which are considered treated articles complies with the labelling requirements of Art. 58 BPR. It has to be emphasised, however, that the evaluation of the labelling requirements mainly has been carried out on the basis of the information available on the internet, as it was not possible to identify the products in physical stores.

However, these findings are confirmed by other studies. An internal enforcement project carried out by the Swedish Chemicals Agency in 2014 (Swedish Chemicals Agency 2015) also concludes that the requirements regarding labelling are not fulfilled in the majority of the cases inspected. Products from 47 companies were inspected and only 4 of the companies had products where the labelling more or less followed the requirements of the biocidal products legislation. In many cases, some sort of biocidal claim was made even though no biocidal active substances was used (the effect turned out to be physical and not biocidal). This study also illustrated that it was difficult to obtain information about the active substances used.

A Nordic report on articles with antibacterial agents, though carried out before the labelling requirements of the BPR came into force (Heijkenskjöld 2014), concludes as well that the information on active substances used in treated articles is very limited and that it mainly is the trade names of the biocidal products that are disclosed and not the chemical names of the active substances.

## **6 Evaluation of compliance with information rights**

In a further work-package of this study it was tested how the right to information is complied with. Suppliers of treated articles shall provide the consumer upon request with information on the biocidal treatment of the treated article within 45 days of the request (Art. 58(5) (EU2 2014).

### **6.1 Method used**

45 articles from the list of treated articles identified in this study (Table 36, Annex 2) were selected for the check how the information rights are complied with. The articles were selected in a way that they represented different product types, but also different types of consumer products. Furthermore, articles from different European countries were selected. As the time frame for this project was 3 months in total, mainly the treated articles first identified were selected for the evaluation of compliance with information rights.

An email was sent to the supplier of the article i.e. the webshop where the article was sold. In the email it was stated that we ‘as a consumer’ were interested in information about which active substance is used to give the article biocidal properties. Most of the 45 articles identified were on the webpages of internet stores or suppliers, but some articles were also identified directly on the webpages of the producers.

The articles chosen were e.g.:

- Cleaning products
- Paint
- Products for pets (shampoo, litter mat, T-shirts)
- Clothing
- Construction products (sealant products, tiles)
- Electronics (refrigerators, light switch, shaver, pocket calculator, computer keyboard)
- Home products (shower curtain, toilet brush, toilet seat, pillows)
- Leisure equipment (boxing gloves, yoga mat)

The articles chosen were representing the following product types (PT):

- PT 2 - Disinfectants and algacides not intended for direct application to humans or animals
- PT 3 - Veterinary hygiene
- PT 4 - Food and feed area
- PT 7 - Film preservatives
- PT 9 - Fibre, leather, rubber and polymerised materials preservatives

The articles chosen were available in the following countries: Denmark (the primary search country), England, France, Italy, Spain, Germany, the Netherlands, Norway, Sweden and Finland.

## **6.2 Information received from suppliers**

After 45 days of sending the email to all 45 suppliers, the following information was received:

- 29 suppliers (64%) replied to our email
- 13 of these suppliers (29%) replied with a description of the biocidal treatment used. The remaining 16 suppliers just responded to our email with some sort of standard reply (“thank you for the inquiry...”), but never returned with information about the active substance used.
- However, 4 of the suppliers stated that no biocidal active substance was used in their product even though a biocidal claim was made. The product was e.g. weaved in a special way or produced in a special way to obtain the biocidal (often antibacterial) effect.

From the rest of the suppliers (16), no information was received, not even a reply to the email. Even after 55 days (end of the project period of this project), no replies were received from these suppliers.

The suppliers who responded to our email, replied within 30 days after the email was sent. Most suppliers responded on the same day or within 2 to 3 days, however, three suppliers responded after 6, 16 and 30 days respectively.

The 13 suppliers who responded with a description of the biocidal treatment used, replied within 0 to 30 days as well. Most suppliers responded on the same day or within 2 to 3 days. Five suppliers responded after 6, 7, 16, 27 or 30 days respectively.

The suppliers listed the following active substances used in the treated articles selected:

- Silver (toilet seat, floor tiles, light switch, water reservoir)
- Silver, magnesium, aluminium, phosphorous complex (toilet seat)
- Silver zirconium phosphate (pocket calculator)
- Zinc (toilet seat)
- Tea tree oil (pet shampoo)

When looking closer at the companies that replied, 5 were producers and 8 were suppliers of the articles. Most of the contacted companies were suppliers and not producers; so a larger percentage of the producers replied (about 40%) compared to the suppliers (about 25%). The producers were also amongst the companies to reply quickly (0 to 3 days) to our request – even though one producer only replied after 16 days.

There does not seem to be any pattern regarding the type of products for which a reply was given – apart from perhaps that the products made of plastics or ceramics (e.g. toilet seats, floor tiles, light switches, pocket calculator) were overrepresented amongst the companies for which a reply was received, whereas for most textile products and electronic products, no replies were received. However, the tendency is not obvious.

### **6.3 Conclusions**

This spot-check of compliance with the information rights of the BPR illustrates that only about one quarter of the suppliers (13 of 45) sent a reply within 45 days as required by the BPR. It also illustrates that these suppliers seem to have a good knowledge of their use of active substances as they have replied fairly quickly – most within the first 2-3 days.

It is also shown that producers respond rather quickly and to a larger percentage as compared to suppliers/distributors. However, it is surprising that about 60% of the producers do not reply within 45 days regarding the biocidal treatment used. The producers should be able to provide information more easily compared to suppliers/distributors.

However, the major part of the companies (about 61%) do not seem to have knowledge about the biocidal ingredients used in the products they sell. Furthermore, 36% of the suppliers do not seem to have knowledge about the obligation to provide information, as they did not reply to our email at all.

## **7 Evaluation of products with can be either biocidal products or treated articles**

One purpose of this project was to examine whether competent authorities of different Member States consider certain goods as biocidal products or as treated articles. The borderline between biocidal products and treated articles is complicated and is different for substances and mixtures as compared to articles as defined by REACH. Furthermore, the wording of the claim can make the difference. Market participants often interpret the borderline to their advantage (i.e. an ambiguous product rather as a treated article), as the costs for the authorisation of a biocidal product are sought to be avoided. It should be investigated in the frame of this study whether competent authorities of the Member States have similar interpretations of chosen examples.

## 7.1 Method used

For this investigation, a list of 10 borderline products, identified in the market survey, was sent to the Competent Authorities of different Member States plus Norway and Switzerland. The request was not sent directly to the countries but was uploaded by the Swedish Chemicals Agency as an e-consultation in order to get more answers.

Two documents were uploaded: A letter explaining the task and the purpose of this project, and a list of the cases that we wanted the Competent Authorities to evaluate. The list is shown in Table 32 below. Some of the goods included were only described in Danish, so that possibly not all Competent Authorities could understand the information given. The e-consultation was started on November 6, 2015 by an email to all Member States plus Norway and Switzerland (EU Coordination Group Contact Points as well as the ECHA Biocides Coordination Group). The countries were asked to give answer by November 25, 2015 the latest. Nine countries gave their evaluation of the borderline cases.

*Table 32: List of borderline cases uploaded to the EU Member States/Norway/Switzerland for evaluation*

Ex. No.	Product name	Type of product	Claim	Link to webshop/producer
1.	The WC wunder brush	Toilet brush for cleaning of toilets	"antibacterial and antimicrobial"	<a href="http://www.wcwunder.co.uk/">http://www.wcwunder.co.uk/</a>
2.	Aptus Dermocanis Pyoderma antibakteriel shampoo	Shampoo for treatment of cats and dogs	"antibacterial effect"	<a href="http://www.dyrlaegensbutik.dk/PELS-HUD/Aptus-Dermocanis-Pyoderma-antibakteriel-shampoo-250-ml.html">http://www.dyrlaegensbutik.dk/PELS-HUD/Aptus-Dermocanis-Pyoderma-antibakteriel-shampoo-250-ml.html</a>
3.	Cleaning cloth MOBiLE CLOTH Nano, 2 pieces multipack (white), approx. 10x10 cm, micromaterial cloth for smartphones, tablets, (sun)glasses, lenses, e-book readers and computer monitors	Cloth for cleaning of different glass surfaces	"Removes up to 98% of bacteria on touchscreen-displays"	<a href="http://www.amazon.co.uk/MOBiLE-CLOTH-multipack-micromaterial-smartphones/dp/B009VWF1SE">http://www.amazon.co.uk/MOBiLE-CLOTH-multipack-micromaterial-smartphones/dp/B009VWF1SE</a>
4.	Antimicrobial packaging - Sanocoat	A series of anti-microbial packaging products for food	anti-microbial packaging	<a href="http://www.mondigroup.com/products/desktopdefault.aspx/tabid-1250/">http://www.mondigroup.com/products/desktopdefault.aspx/tabid-1250/</a>
5.	Mikrofiber hvalpe tandbørste, antibakteriel (Microfiber toothbrush for puppies, antibacterial)	Antibacterial microfiber finger toothbrush for dogs	"antibacterial"	<a href="http://www.foderboxen.dk/shop/mikrofiber-hvalpe-tandboerste-antibakteriel/">http://www.foderboxen.dk/shop/mikrofiber-hvalpe-tandboerste-antibakteriel/</a> <a href="http://www.amazon.de/Bogadent-UBO0704-Anti-Plaque-Finger-Adult/dp/B006L3UNDY">http://www.amazon.de/Bogadent-UBO0704-Anti-Plaque-Finger-Adult/dp/B006L3UNDY</a> <a href="http://www.nah-products.com/bogadent-anti-plaque-finger-pup.html">http://www.nah-products.com/bogadent-anti-plaque-finger-pup.html</a>
6.	Rambo Fly Buster Vamoose (AFAROV)	Horse blanket	"insect repellent"	<a href="http://hopevalleysaddlery.co.uk/261/Rambo-Fly-Buster-Vamoose-Fly-Rug-(Horse-and-Pony-Sizes)">http://hopevalleysaddlery.co.uk/261/Rambo-Fly-Buster-Vamoose-Fly-Rug-(Horse-and-Pony-Sizes)</a>

Ex. No.	Product name	Type of product	Claim	Link to webshop/producer
7.	Lentiamo Antibakteriel etui Antibacterial cases for contact lenses	Antibacterial cases for contact lenses	"antibacterial"	<a href="http://www.lentiamo.dk/antibakteriel-etui.html">http://www.lentiamo.dk/antibakteriel-etui.html</a> <a href="http://www.lentiamo.co.uk/antibacterial-cases.html">http://www.lentiamo.co.uk/antibacterial-cases.html</a>
8.	Mosquito Repellent Clothing	Different shirts, shorts, trousers that are mosquito repellent	"mosquito repellent"	<a href="http://www.mountainwarehouse.com/travel/clothing/anti-mosquito/">http://www.mountainwarehouse.com/travel/clothing/anti-mosquito/</a>
9.	Dana Lim Sensitive Wipes 915	Cleansing wipe which removes dirt, oils, filler, sealants, glue etc. from different surfaces	"kills 99,99 % of all bacteria"	<a href="http://www.danalim.dk/produktkatalog/byggeri/fugetilbehoer/wipes-915/">http://www.danalim.dk/produktkatalog/byggeri/fugetilbehoer/wipes-915/</a> <a href="http://www.danalim.dk/fileadmin/editors/produktinformation/dk/915.pdf">http://www.danalim.dk/fileadmin/editors/produktinformation/dk/915.pdf</a> <a href="http://www.danalim.com/fileadmin/editors/sikkerhedsdatblad/uk/915.pdf">http://www.danalim.com/fileadmin/editors/sikkerhedsdatblad/uk/915.pdf</a>
10.	BioniNature	Anti-mold paint	"durable protection against mould and fungus"	<a href="http://www.bioni.se/userFiles/myPdfs/Bioni/BIONI_Bioni_Perform_0710_US-L_S.pdf">http://www.bioni.se/userFiles/myPdfs/Bioni/BIONI_Bioni_Perform_0710_US-L_S.pdf</a> <a href="http://bioni.de/en/index.php?page=produktprogramm_bioni_nature&amp;lang=en">http://bioni.de/en/index.php?page=produktprogramm_bioni_nature&amp;lang=en</a>

## 7.2 Replies received

Replies were received from the following countries:

1. Sweden
2. Norway
3. Germany
4. Slovenia
5. Luxembourg
6. Estonia
7. Finland
8. Switzerland (three different authorities gave each their different statement)
9. Belgium

The replies received from the countries are listed in Table 33 below. However, only the specific evaluations together with the explanations are given, not which country they came from.

Table 33: Evaluation of borderline cases by the EU Member States plus Norway and Switzerland.

Ex. No.	Product name	Type of product	Evaluation as biocidal product (BP)	Evaluation as treated article (TA)	Explanations given
1.	The WC wunder brush	Toilet brush for cleaning of toilets	1	9	<p><b>TA:</b> The purpose of the silver is to keep the brush free from bacteria from the toilet. No primary biocidal function. Assuming prevention of contamination of the brush. Toilet brush with antibacterial properties. <b>BP:</b> <i>No explanation for the evaluation given</i></p>
2.	Aptus Dermocanis Pyoderma antibakteriel shampoo	Shampoo for treatment of cats and dogs	3		<p><b>Outside scope of BPR:</b> A shampoo. Antibacterial effect is because of low pH. Not a biocide – veterinary medicine (pyodermias). The product decreases the skin pH, which reduces the growth of bacteria. Not under the BPR. Veterinary medical product? <b>BP:</b> Mixture with a biocidal intention, if the claim is antibacterial effect. If a medicinal claim is made, this could also be a veterinary medicinal product.</p>
3.	Cleaning cloth MOBiLE CLOTH Nano, 2 pieces multipack (white), approx. 10x10 cm, micromaterial cloth for smartphones, tablets, (sun)glasses, lenses, e-book readers and computer monitors	Cloth for cleaning of different glass surfaces	2	2 +(1)	<p><b>Outside scope of BPR:</b> The bacteria might be removed physically and not chemically. The product cleans mechanically. Article, but not treated with biocides. It is based on microfibers. If it is not treated with biocidal products it is not a TA nor BP. <b>TA:</b> However, if a biocidal active substance is incorporated into the cloth (which is not clear), the cloth would be a treated article (no primary biocidal function). <b>BP:</b> But most probably unintended. If chemicals are in the product, otherwise it is a microfiber product.</p>
4.	Antimicrobial packaging - Sanocoat	A series of anti-microbial packaging products for food	3	7	<p><b>TA:</b> The packaging contains antimicrobial products (PT 4 products). Food packaging materials are outside the scope of BPR. The mode of action should be specified. <b>BP:</b> <i>No explanation for the evaluation is given.</i></p>

Ex. No.	Product name	Type of product	Evaluation as biocidal product (BP)	Evaluation as treated article (TA)	Explanations given
5.	Mikrofiber hvalpe tandbørste, antibakteriel (Microfiber toothbrush for puppies, antibacterial)	Antibacterial microfiber finger toothbrush for dogs		9	<b>TA:</b> Probably. Like the toilet brush, it could seem that the silver ions are meant to preserve the tooth brush itself. No primary biocidal function. Assuming prevention of contamination of the brush. It seems that silver ions protect the microfiber fabric from contamination. Probably treated article.
6.	Rambo Fly Buster Vamoose (AFAR0V)	Horse blanket	8	1	<b>BP:</b> According to the claim, the aim is to keep insects away, and not to keep the horse clean or warm. A repellent + a carrier (blanket). Article 3(3) Decision. Intended solely to control insects. The claim of the product is not correct. Permethrin is not a repellent, but an insecticide (PT 18). If “insect repellent” is claimed, the active substance has to be included in the Review Programme or approved for PT 19. <b>TA:</b> <i>No explanation for the evaluation is given.</i>
7.	Lentiamo Antibakteriel etui Antibacterial cases for contact lenses	Antibacterial cases for contact lenses	2	7	<b>TA:</b> The main function is to be a case for contact lenses. No primary biocidal function. Assuming that the purpose of the case is to provide a sterile storage, and not actively disinfecting the lenses. The primary function is to store lenses in the container. <b>BP:</b> A biocidal product, but may be a medical device. <b>Outside scope of BPR:</b> as the case enhances the disinfecting power of the liquid it contains. This could be understood as a second disinfectant and consequently as a medical device.
8.	Mosquito Repellent Clothing	Different shirts, shorts, trousers that are mosquito repellent	1	10	<b>TA:</b> The main function is clothing. No primary biocidal function. Clothes treated with an insect repellent are treated articles. Outfits that are treated with active substances are considered as treated articles if they are either included in the Review Programme, or “new” active substances or have been approved for the relevant product type (here PT 19). It should be kept in mind that after several washings, the outfit will lose the repellent property. <b>BP:</b> See horse blanket. Furthermore, the claim is identical to the claim of normal PT 19 biocidal products.

Ex. No.	Product name	Type of product	Evaluation as biocidal product (BP)	Evaluation as treated article (TA)	Explanations given
9.	Dana Lim Sensitive Wipes 915	Cleansing wipe which removes dirt, oils, filler, sealants, glue etc. from different surfaces	6	3	<p><b>TA:</b> The main purpose is to remove glue, sealant, spills, etc.</p> <p><b>BP:</b> Disinfecting cleansing fluid + carrier (wipe). Is analogous to disinfection wipes. See also <a href="http://echa.europa.eu/documents/10162/13632/articles_en.pdf">http://echa.europa.eu/documents/10162/13632/articles_en.pdf</a> (page 34 table 2).</p> <p>Biocidal product, but could be cosmetic without the claim.</p> <p>Disinfecting wipes are biocidal products. In this particular case the content of product should be specified and the claim “kills 99,99 % of all bacteria” should be proved, because according to the description the product removes oil, dirt, grease, sealants etc. from surfaces. So the claim “kills 99,99 % of all bacteria” can be only a marketing stunt to sell these products.</p>
10.	BioniNature	Anti-mold paint	1	8	<p><b>TA:</b> Could be, but need more information. It is not clear whether the paint contains PT 7 product, or if there are other mechanisms that prevents mold, mildew etc.</p> <p>Mixture treated with a biocidal product of PT 7.</p> <p>Assuming the paint contains a PT 7 BP / PT 7 film preservative to protect the paint.</p> <p>The active substance protects the paint. But Bioni sells other products that are more difficult to classify, e.g. where the claim is that the paint improves the hygiene in the hospital rooms that were painted with the paint.</p> <p><b>BP:</b> <i>No explanation for the evaluation is given.</i></p>

### **7.3 Differring opinions on example products**

Even though only a small selection of products was included in the evaluation, the results illustrate that the countries only totally agreed on one out of the 10 products – for the rest of the products opinions differ.

This might be partially caused by the fact that not all information about the products was available to the countries. The only information available was the description of the product on the website. Under normal circumstances, more in-depth information about the product and the active substances used would be needed to take a more profound assessment.

In most cases the majority of the countries tends to the same evaluation, and only one or two countries deviate. Sometimes however, opinions are more split. In the following, the disagreements are discussed:

#### **Antibacterial shampoo for treatment of cats and dogs**

None of the countries considers this product as a treated article. Instead, most countries consider this product outside the scope of the BPR, being a veterinary medical product or because the antibacterial effect being due to the low pH value and not because of added active substances. However, three of the countries consider this product being a biocidal product, due to its main biocidal intention. It is noted only by one country, that if a medicinal claim is made, this could also be a veterinary medicinal product.

#### **Mobile micromaterial cleaning cloth for of different glass surfaces**

Most of the countries consider this product to be outside the scope of the BPR, as the bacteria seem to be removed physically and not chemically. However, if a biocidal active substance was incorporated into the cloth (which is not clear), the cloth would be a treated article (as it has no primary biocidal function). Using this argument, three of the countries consider the cloth to be a treated article. In contrast, two countries consider the cloth to be a biocidal product – if the cloth contains an active substance.

#### **Cleansing wipes**

For the cleansing wipes six countries argue for the product being a biocidal product, whereas three countries argue for a treated article. The argumentation for a biocidal product is that the product contains a disinfecting cleansing fluid on a carrier (the wipe), and that the main function is the disinfecting purpose. One country, however, mentions that if no claim was made it would instead be a cosmetic product. The argumentation for being a treated article is that the main purpose is to remove glue, sealant, spills, etc., and not a disinfecting purpose.

#### **Antimicrobial packaging products for food**

A company produces a series of packaging products for food with an antimicrobial claim. Three of the countries are of the opinion that the products are biocidal products whereas most of the countries (7) have argued for treated articles. No arguments for the interpretation as a biocidal product are given by any of the countries, but it is assumed that they consider the antimicrobial effect to be the primary purpose. The seven countries that consider the packaging products as treated articles state that the packaging material contains antimicrobial substances, but that the main function still is to wrap the food. The evaluation is, however, not that clear; one country needs more information on the mode of action in order to make a conclusion, and another country gives the comment that food packaging materials are outside the scope of the BPR.

## 7.4 Conclusions

The evaluation of examples for borderline products emphasises that the definition of treated articles in the BPR is subject to interpretation. It is often difficult to decide whether the biocidal function of a product is primary or not. For most of the 10 borderline products a majority of countries agreed on one interpretation with only one or two countries having a deviating opinion. However, in four out of the 10 examples there was no clear tendency to one or the other interpretation.

The borderline cases that raised most doubt among the countries were the antibacterial shampoo for cats and dogs (a biocidal product or out of scope of the regulation (veterinary medicinal product)), mobile micromaterial cleaning cloth (outside scope of regulation, a biocidal product or a treated article), the cleansing wipe (a biocidal product or a treated article), and antimicrobial food packaging (a biocidal product, a treated article or outside scope of regulation because of being food contact material).

It is interesting that two very similar products – mosquito repellent clothing for people and a mosquito repellent horse blanket – are judged completely differently by the countries. 8 out of 9 evaluate the horse blanket as a biocidal product whereas 10 out of 11 (the Swiss assessment units having given three opinions) evaluate the mosquito repellent clothing for humans as a treated article. The reason for this difference must be that human clothing is considered as essential for humans (i.e. the primary function is to keep us warm and chaste), whereas clothing for horses is not judged to be essential, i.e. the primary function will be to keep flies and mosquitos away and not to keep the horse warm.

However, these examples clearly illustrate that there is a need for better guidelines or clearer rules regarding where to draw the line between what should be considered as biocidal products and what should be considered as treated articles. One of the remarks raised by a Member State emphasises this:

*“The actual differentiation between a horse blanket (biocide), mosquito repellent clothing (treated article) and a mosquito net (biocide) raises in real life problems: e.g. a hat with an attached mosquito net for the face is this still a clothing or is this now also a biocide? The common goal of these three items can be seen in first priority as a mechanical biocidal action which is supported and reinforced by a supplementary biocidal active substance = treated article. Any assignment of these three items to different groups will cause problems in enforcing of these rules. Therefore they should be assigned at least to the same group (biocide or treated article).”*

## 8 Overall conclusions

Biocidal treatment of goods is usually known to add a property to the goods which gives them an advantage over the same type of non-treated good. This is claimed in various ways (anti-microbial, anti-mould, hygienic surface, etc.). This survey shows, however, that these types of treated goods are probably outnumbered by goods which are “silently” treated, that is without a claim. Such treatment is usually directed towards protecting the material by prolonging shelf-life or improving the in-use properties.

### **Many biocide treated goods on the market**

This survey has focused on biocide treated articles available to consumers. Numerous examples of treated goods have been identified, but treated articles according to the BPR definition have mainly been found within the following product types:

- PT 2 Disinfectants and algacides not intended for direct applications to humans or animals
- PT 3 Veterinary hygiene
- PT 4 Food and feed area
- PT 6 Preservatives for products during storage
- PT 7 Film preservatives
- PT 9 Fibre, leather, rubber and polymerised materials preservatives
- PT 10 Construction material preservatives
- PT 18 Insecticides, acaricides and products to control other arthropods
- PT 19 Repellents and attractants

The distinction between a treated article, a biocidal product and a product which is out of scope of the BPR has been very challenging, partly due to the limited information given or available on the internet, partly because the legal definition is not easy to understand. Even the allocation to a product-type has not been obvious in all cases. This problem is often triggered by unclear descriptions of the biocidal function or property of the product in question.

### **More treated articles on the market than those which claim to be treated**

Often, the treated goods belonging to the above mentioned groups are marketed with a claim which indicates that they have undergone some type of biocidal treatment. A much greater number of products containing biocides without claiming it (“silent treatment”) could be identified in the Swedish Product Register. Though the biocidal active substances identified in these products might not in all instances have a biocidal function, it can be assumed that for many of the products this is the case. By contacting producers of preservatives and by literature search, an even greater number of articles or categories of articles treated “silently” were found. In conclusion, there are many more products treated with biocides on the market than can be identified at first glance. For the first time, a large number of products with a “silent treatment” could be systematically identified.

Due to methodological difficulties, treated articles as defined by REACH with a “silent treatment” could not be identified to a greater extent, as these are not registered in the Swedish Product Register and not in any other register either. Some examples which fall under the category treated article were found nevertheless by the literature search, as for instance:

- Water beds
- Carpet backings and other flooring materials
- Polyurethane foam used in e.g. furniture and carpets
- Treated wood for do-it-yourself

### **Significance of claims not well understood**

Treated goods with a claim such as “antibacterial” or similar can be found in great abundance, which has been demonstrated in other earlier studies as well. They fall into consumer product categories such as:

- Cleaning products – both chemical and non-chemical (cleaning cloths)
- Sanitary products
- Electronic products
- Kitchen utensils
- Textile products
- Leisure equipment
- Home products
- Baby/children products
- Flooring products
- Pet accessories for cleaning, caring, feeding etc.

Many of these goods are chemical products and therefore by definition biocidal products, as soon as they make a biocidal claim. Obviously, most of the suppliers/manufacturers of these products are not aware of this. This is not surprising as even the Competent Authorities of the Member States do not have a common concept how to categorise substances and mixtures with a biocidal claim.

In addition, many of these claims are very unclear. It is often left in the vague whether the treatment is directed to protect humans or animals, or whether the treatment is needed to improve the shelf- or service life of the material. It is suspected that claims are often rather used as a marketing tool than an information given about a certain property of a product or article. Consequently, the awareness of the requirements of the BPR which come with a claim is low.

### **Labelling requirements not fulfilled**

This is even confirmed by the failure of the majority of considered articles to comply with the labelling requirements. The fact that only in very few cases the name of the active substance was given can be an indication that the manufacturers of treated articles are not too knowledgeable themselves about the purpose of the treatment and the different properties of different substances. Furthermore, due to marketing considerations, the advantages of a treatment are highlighted (antimicrobial), whereas possible disadvantages (contains potentially dangerous chemicals) are not informed about. Only when the active substance is some type of silver the information is given voluntarily, because of the positive associations connected with silver. A further indication that manufacturers and suppliers do not want to highlight disadvantages is that not in a single case any instructions for use or precautions to be taken are mentioned.

This demonstrates that information about the requirements of the BPR has to be given more actively to manufacturers of articles treated with biocides.

### **The suppliers are not aware of the right to information**

The fact that only about one quarter of the suppliers/manufacturers of treated articles sent a reply on request within 45 days with information about the active substances contained shows as well that many actors on the market are not aware of the requirements of the BPR. Especially actors which are not into producing and selling biocidal products, but articles, do not seem to have the knowledge necessary to comply with the BPR. The fact that manufacturers of articles complied a little better with the information requirements as compared to suppliers probably indicates that they know about the substances used. Whether they are aware of the right to information which comes with the BPR or whether they are used to giving this kind of information due to the Reach-regulation cannot be decided on the basis of this survey.

It can be concluded that better information about the Biocides regulation needs to be available to the actors on the market, particularly actors which are not producing or selling biocidal products but treated articles. Obviously, such information needs to be given more actively in order to make the biocides legislation work in the way it is thought.

### **Better guidance is needed on the distinction between biocidal products and treated articles**

The fact that only in a single case out of the 10 examples given all countries agreed on a categorisation shows that the borderline between biocidal products and treated articles is obviously complicated. Even if for most of the products a majority of countries agreed on one interpretation with only one or two countries having a deviating opinion this is not a sufficiently good common understanding to ensure a common market. This part of the survey clearly illustrates that there is a need for better guidelines or clearer rules regarding where to draw the line between what should be considered as biocidal products and what as treated articles.

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## Annex 1: Results from the Swedish Product Register search

In this Annex, the results from the search in the Swedish Product Register are presented (in Table 35). The search shows that 210 of the 267 active substances listed in the ECHA Database (ECHA, Biocidal Active Substances 2015) were identified in the Swedish Product Register.

In chapter 4 the active substances used in products allocated to different function codes are presented. With the help of the function codes it was guessed with what intention the active substance is added or incorporated and thus which product type the active substance belongs to. However, it was not in all cases possible to guess for which purpose the active substance is added, which is a precondition to allocate it to a PT. In case of doubt, it was always assumed that the active substance was added as preservative for storage (PT 6). However, the allocation of the active substance to a product type is only a guess based on the function code alone, no other information was available. Thus, there are possibly several cases where the allocation is not correct. Specifically in cases where an active substance is added with another purpose than a biocidal one, the allocation of the active substance to a product type must fail. An indication for such cases can be that the active substance is not notified for the PT in question.

In order to make transparent which considerations were made to allocate the different uses of biocides within the function codes to PTs, these allocations are presented in table 36. Please note that these allocations have been made by the authors of this report and are therefore not necessarily correct. The allocations have been made on the basis of the function code only – no examples of products have been available.

Table 37 shows the results of the search in the Swedish Product Register for the active substances listed in ECHA's database. The table should be read in the following way:

- The first and second column give the CAS number and the chemical name of the active substance.
- The third and fourth column list the function code and function name of the products the active substances are used in – this is only true, however, for function codes where at least 10 products were found with the active substance in question. Function codes with less than 10 products per active substance were excluded to reduce complexity.
- The fifth column gives the total number of products that the active substances has been identified in, including such with less than 10 products per function (column 5)
- The sixth column lists the number of products for the specific function code the active substance is used in. For example: Boric acid is listed in 450 products in total in the Swedish Product Register and is found in 12 different type of products, where the total amount of products is 10 or more, e.g. found in 10 grinding fluid products. Altogether, boric acid is used in 450 different products, but only 269 of them are identified by their product code. The difference, 181 products, contain boric acid but in less than 10 products per product code.

The table also shows that the 210 different active substances from the ECHA database found in the Swedish Product Register are identified in 45,170 different products in Sweden. It should be emphasised that these 45,170 products only cover chemical products that are imported or produced in quantities above 100 kg per year. Specific chemicals like cosmetics or pharmaceuticals are, however, not registered in the Product Register. This means that the active substances in addition may be used in other chemical consumer products or in non-

chemical products, e.g. in textiles, plastic products, rubber products, construction products etc.

The functions listed cover 35,955 of the 45,170 products, i.e. 80 % of the products registered in the Swedish Product Register.

*Table 34: The used allocation of the product type of the active substances to functions in the Swedish Product Register*

<b>Function code</b>	<b>Function name</b>	<b>PT no.</b>
A05200	Filtration media	6
A05250	Ion exchanger	6
A05300	Air cleaners and anti-odour agents (not filters, not deodorants see also D20XXX)	2
A40100	De-icing agents	6
A40200	Cooling agents	11
A40300	Anti-freezing agents, other	6
A55100	Anti-static agents	6
A60100	Dressing agents (glazing agents, polishing agents)	6
B15110	Human hygiene biocidal products	1
B15120	Private area and public health area disinfectants and other biocidal products	2
B15130	Veterinary hygiene biocidal products	3
B15140	Food and feed area disinfectants	4
B15142	Sanitation agents for toilets	2
B15150	Drinking water disinfectants	5
B15310	In-can preservatives	6
B15315	Wood preservatives	8
B15320	Film preservatives	7
B15330	Fibre, leather, rubber and polymerised materials preservatives	9
B15350	Preservatives for liquid-cooling and processing systems	11
B15360	Slimicides	12
B15510	Rodenticides	14
B15560	Repellents and attractants	19
B15710	Preservatives for food or feedstocks	Out of scope
B15720	Antifouling	21
B16120	Fungicides	Out of scope
B16130	Herbicides (weed killers)	Out of scope
B18100	Car care products and boat care products	6
B20100	Binding agents for paints, adhesives etc.	6
B20200	Binding agents for moulding sand	6
B20300	Binding agents, other	6
B25200	Bleaching agents for textiles	6
B25300	Bleaching agents, other, see also F32100	6
B35200	Softners	6
B55100	Motor fuels	13
B55300	Fuels, other	6
B60200	Fuel additives, other	6
D20100	Industry perfumes	6
D20200	Deodorants	Out of scope
D20300	Odour agents, other	6

Function code	Function name	PT no.
E10100	Electrolytes	6
F05110	Pigments to paint and printing inks	6
F05250	Pigment pastes	6
F05990	Colouring agents, other	6
F10700	Fixing agents, other	6
F12100	Coating agents	6
F15100	Flotation agents	6
F32990	Photographic chemicals, other	6
F45300	Fillers, other	6
F50100	Flocculating chemicals	6
G05400	Galvano-technical agents, other	6
G30100	Joint-less floors	10
G30200	Flooring materials, other	7, 9 or 10
G40100	Fertilizers	6
H15100	Concrete hardeners	10
H15400	Curing agents, plastic	7
H15500	Hardeners, other	6
I05100	Leather impregnation agents	6/9
I05300	Textile impregnation agents	6/7/9
I05400	Wood impregnation agents, wood preserving agents, for biocides report under B15315	8
I05500	Impregnation agents, other	6
K20100	Sequestering agents	6
K35100	Cement/concrete/mortar	10
K35120	Fireproof cement	10
K35500	Road paving materials	10
K35900	Construction materials, other	10
K40100	Contactors (electrical)	6
K55100	Cooling agents	11
K60160	Broaching oils	13
K60200	Grinding fluids	13
K60350	Fluids for modelling metal, other	13
K60450	Fluids for clipping metal, other	13
K60500	Cutting fluids, other	13
L05100	Reagents	6
L05200	Indicators (pH-Indicators)	6
L05250	Nutritive medium	6
L05300	Laboratory chemicals, other	6
L10101	Adhesives - Water based - Industrial use	7
L10201	Adhesives - Based on organic thinners - Industrial use	7
L10401	Adhesives - Powder - Industrial use	7
L10601	Adhesives - Hardener for adhesive - Industrial use	7
L15100	Flux agents for soldering	6
L15990	Soldering agents, other	6
L20050	Veterinary pharmaceuticals	Out of scope
M05132	Paint and varnish - Water base - Active corrosion inhibitor - Exterior	6
M05133	Paint and varnish - Water base - Active corrosion inhibitor - Industrial use	6
M05139	Paint and varnish - Water base - Active corrosion inhibitor - Other (including road-, art-, furniture-, autpaint)	6
M05141	Paint and varnish - Water base - Other/ decorative - Interior	6

Function code	Function name	PT no.
M05142	Paint and varnish - Water base - Other/ decorative - Exterior	6
M05143	Paint and varnish - Water base - Other/ decorative - Industrial use	6
M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	6
M05233	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use	6
M05239	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)	6
M05241	Paint and varnish - Volatile - Other/ decorative - Interior	6
M05242	Paint and varnish - Volatile - Other/ decorative - Exterior	6
M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use	6
M05249	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	6
M05442	Paint and varnish - No thinner - Other/ decorative - Exterior	6
M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use	6
M05449	Paint and varnish - No thinner - Other/ decorative - Other (including road-, art-, furniture-, autopaint)	6
M05541	Paint and varnish - Powder based - Other/ decorative - Interior	6
M05543	Paint and varnish - Powder based - Other/ decorative - Industrial use	6
M05633	Paint and varnish - Curing paint - Active corrosion inhibitor - Industrial use	6
M05639	Paint and varnish - Curing paint - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)	6
M05642	Paint and varnish - Curing paint - Other/ decorative - Exterior	6
M05643	Paint and varnish - Curing paint - Other/ decorative - Industrial use	6
M08100	Additives for paint and varnishes not mentioned elsewhere in the table	6
M10200	Graffiti removers	6
M15100	Metal staining agents	6
M15400	Rust removers	6
M15500	Surface treatment of metal, other	6
O15100	Solvents	6
O25100	Wetting agents, Moisturizers	6
O25200	Dispersion agents (carriers)	6
O25300	Emulsifiers	6
O25400	Anti foaming agents, foamreducing agents	6
O25500	Surface active agents, other	6
O27900	Surface treatment, other	6
O30100	Stove black polish	6
O40200	Oxidation agents, other	6
P05100	pH-regulating agents	6
P10100	Polishing agents for lacquers (car wax)	6
P10150	Polishing agents for leather (incl. shoe polish)	6
P10500	Wax and other polishing preparations for floors	6
P10990	Polishing agents, other	6
P15500	Catalysts	6
R10100	Degreasers (cold degreasing, de-waxing, de-polishing)	6
R10130	Drain Cleaners	6
R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate	6
R10160	Auto shampoo	6
R10250	Glass- and window cleaner (window polish)	6
R10350	Lime deposit (calcium) remover	6
R10370	Cleaning/washing agents for washing machines	6
R10400	Cleaning/washing agents for dish washing	6
R10500	Spot (stain) removers	6

<b>Function code</b>	<b>Function name</b>	<b>PT no.</b>
R10600	Foam cleaning/washing agents	6
R10700	Windscreen washing agents	6
R10970	Washing agents for textile (detergents)	6
R10980	Optical whiteners	6
R10990	Cleaning/washing agents, other	6
R15100	Cracking indicators	6
R20100	Underseal materials, incl. cavity seals	6
R20200	Corrosion inhibitors	6
R20900	Anti-corrosion materials, other	6
R30300	Raw materials for production of rubber products	6/9
R30500	Raw materials for production of cosmetics etc	6
R30700	Raw materials for production of metals	6
R30800	Raw materials for production of plastics	6/9
R30900	Raw materials for production of paper	6/9
R30990	Raw materials, other	6
S10100	Writing ink	6
S25100	Rinsing agents (for dish washing machines)	6
S25500	Rinsing agents (textiles)	6
S25990	Rinsing agents, other	6
S40400	Slip agents for sand moulding	6
S40500	Anti-set-off agents, other	6
S45110	Base oil	13
S45150	Gear oils	13
S45180	Motor oils	13
S45200	Friction-reducing additives	13
S45250	Additiv to lubricating agents	13
S45300	Lubricants, other	13
S60200	Stabilizers, other	6
S65100	Moulding compounds	6
S75400	Welding products, other	6
T15121	Printing inks - Water base - Rotogravure - Paper/ cardboard/ paperboard	6
T15233	Printing inks - Based on organic thinner - Flexocolour (aniline dye) - Plastic	6
T15242	Printing inks - Based on organic thinner - Offset printing - Metal	6
T15335	Printing inks - No thinner - Flexocolour (aniline dye) - Other	6
T15353	Printing inks - No thinner - Serigraphic printing - Plastic	6
T20100	Drying agents	6
U05100	Sealants	6
U05200	Filling	6
U05300	Putty	6
U05400	Filling materials, other	6
V15100	Thickening agents	6

Table 35: Result of the search in the Swedish Product Register

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
10028-15-6	Ozone			1	
10043-35-3	Boric acid			450	269
		B15120	Private area and public health area disinfectants and other biocidal products		43
		B15315	Wood preservatives		12
		G05400	Galvano-technical agents, other		22
		G40100	Fertilizers		47
		K35120	Fireproof cement		13
		K60200	Grinding fluids		10
		K60350	Fluids for modelling metal, other		22
		K60450	Fluids for clipping metal, other		22
		K60500	Cutting fluids, other		29
		L05300	Laboratory chemicals, other		18
		L10101	Adhesives - Water based - Industrial use		18
		M15500	Surface treatment of metal, other		13
10049-04-4	Chlorine oxide			6	
101463-69-8	Benzamide, N-[[[4-[2-chloro-4-(trifluoromethyl)phenoxy]-2-fluorophenyl]amino]carbonyl]-2,6-difluoro-			2	
10222-01-2	Acetamide, 2,2-dibromo-2-cyano-			266	221
		B15350	Preservatives for liquid-cooling and processing systems		12
		B15360	Slimicides		16
		B20100	Binding agents for paints, adhesives etc.		11
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		101
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		59
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		22
104-55-2	2-Propenal, 3-phenyl-			70	23
		R10990	Cleaning/washing agents, other		11
		R30500	Raw materials for production of cosmetics etc		12

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl-, methyl ester			144	116
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		17
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		10
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		19
		M05642	Paint and varnish - Curing paint - Other/ decorative - Exterior		15
		U05100	Sealants		40
		U05400	Filling materials, other		15
106-24-1	2,6-Octadien-1-ol, 3,7-dimethyl-, (E)-			378	298
		B15560	Repellents and attractants		10
		B18100	Car care products and boat care products		14
		D20100	Industry perfumes		21
		D20200	Deodorants		22
		D20300	Odour agents, other		42
		P10100	Polishing agents for lacquers (car wax)		12
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		28
		R10990	Cleaning/washing agents, other		31
		R30500	Raw materials for production of cosmetics etc		104
		S25500	Rinsing agents (textiles)		14
107-02-8	2-Propenal			1	
107-22-2	Ethanedial			167	106
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		36
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		23
		R30900	Raw materials for production of paper		10
		V15100	Thickening agents		37
107534-96-3	1H-1,2,4-Triazole-1-ethanol, .alpha.-[2-(4-chlorophenyl)ethyl]-.alpha.-(1,1-dimethylethyl)-, (.+.-)-			19	
1085-98-9	Methanesulfenamide, 1,1-dichloro-N-((dimethylamino)sulfonyl)-1-fluoro-N-phenyl			28	23
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		23

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
110-44-1	2,4-Hexadienoic acid, (E,E)-			65	23
		O25400	Anti foaming agents, foamreducing agents		23
1111-67-7	Thiocyanic acid, copper(1+) salt			15	10
		B15720	Antifouling		10
111-30-8	Pentanedial			285	188
		B15120	Private area and public health area disinfectants and other biocidal products		17
		B15360	Slimicides		11
		F05250	Pigment pastes		12
		F05990	Colouring agents, other		56
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		15
		O25400	Anti foaming agents, foamreducing agents		32
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		12
		R10980	Optical whiteners		11
		R30900	Raw materials for production of paper		22
111988-49-9	Cyanamide, [3-[(6-chloro-3-pyridinyl)methyl]-2-thiazolidinylidene]-			4	
112-05-0	Nonanoic acid			21	
112-12-9	2-Undecanone			5	
112926-00-8	Silica gel, pptd., cryst.-free			837	685
		F05110	Pigments to paint and printing inks		122
		F05250	Pigment pastes		11
		F45300	Fillers, other		11
		G30200	Flooring materials, other		22
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		11
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		19
		M05241	Paint and varnish - Volatile - Other/ decorative - Interior		10
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		159
		M05249	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autopaing)		15
		M05442	Paint and varnish - No thinner - Other/ decorative - Exterior		10
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		46

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		M05541	Paint and varnish - Powder based - Other/ decorative - Interior		13
		M05543	Paint and varnish - Powder based - Other/ decorative - Industrial use		12
		M05643	Paint and varnish - Curing paint - Other/ decorative - Industrial use		50
		M08100	Additives for paint and varnishes not mentioned elsewhere in the table		27
		O25400	Anti foaming agents, foamreducing agents		27
		R10970	Washing agents for textile (detergents)		23
		R30300	Raw materials for production of rubber products		36
		R30800	Raw materials for production of plastics		61
118-52-5	2,4-Imidazolidinedione, 1,3-dichloro-5,5-dimethyl-			1	
119515-38-7	1-Piperidinecarboxylic acid, 2-(2-hydroxyethyl)-, 1-methylpropyl ester			16	13
		B15560	Repellents and attractants		13
120-32-1	Phenol, 4-chloro-2-(phenylmethyl)-			6	
12040-43-6	Silicic acid, aluminum magnesium sodium salt			10	
12042-91-0	Aluminum chloride hydroxide			32	
12069-69-1	Copper, [carbonato(2-)]dihydroxydi-			20	11
		B15315	Wood preservatives		11
12122-67-7	Zinc, [[1,2-ethanediy]bis[carbamo]dithioato]](2-)-			1	
12124-97-9	Ammonium bromide			23	
12179-04-3	Boron sodium oxide (B4Na2O7), pentahydrate			66	27
		G40100	Fertilizers		27
12280-03-4	Boric acid (H2B8O13), disodium salt, tetrahydrate			9	
122-99-6	Ethanol, 2-phenoxy-			543	353
		B15110	Human hygiene biocidal products		10
		B15310	In-can preservatives		24
		K60350	Fluids for modelling metal, other		10
		K60500	Cutting fluids, other		18

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		L20050	Veterinary pharmaceuticals		49
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		13
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		10
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)		16
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		33
		R10400	Cleaning/washing agents for dish washing		15
		R10970	Washing agents for textile (detergents)		21
		R10990	Cleaning/washing agents, other		43
		R30500	Raw materials for production of cosmetics etc		46
		S25500	Rinsing agents (textiles)		45
123-03-5	Pyridinium, 1-hexadecyl-, chloride			2	
124-07-2	Octanoic acid			227	136
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		52
		M15500	Surface treatment of metal, other		13
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)		18
		R10990	Cleaning/washing agents, other		36
		S45150	Gear oils		17
124-38-9	Carbon dioxide			278	187
		B18100	Car care products and boat care products		16
		M15400	Rust removers		13
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)		40
		R10990	Cleaning/washing agents, other		48
		S45110	Base oil		34
		S45300	Lubricants, other		23
		S75400	Welding products, other		13
127-65-1	Benzenesulfonamide, N-chloro-4-methyl-, sodium salt			6	
128-03-0	Carbamodithioic acid, dimethyl-, potassium salt			2	
128-04-1	Carbamodithioic acid, dimethyl-, sodium salt			13	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
128275-31-0	2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo-			3	
129-06-6	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, sodium salt			5	
1303-86-2	Boron oxide			30	
1303-96-4	Borax [ISO]			209	53
		A40200	Cooling agents		15
		G40100	Fertilizers		15
		L10101	Adhesives - Water based - Industrial use		11
		M15500	Surface treatment of metal, other		12
1305-62-0	Calcium hydroxide			752	624
		B15120	Private area and public health area disinfectants and other biocidal products		14
		K35100	Cement/concrete/mortar		230
		K60350	Fluids for modelling metal, other		19
		K60500	Cutting fluids, other		13
		R20900	Anti-corrosion materials, other		12
		R30300	Raw materials for production of rubber products		41
		R30800	Raw materials for production of plastics		17
		S45110	Base oil		29
		S45180	Motor oils		104
		S45200	Friction-reducing additives		14
		S45250	Additiv to lubricating agents		16
		S45300	Lubricants, other		53
		S60200	Stabilizers, other		22
		U05100	Sealants		12
		U05200	Filling		28
1305-78-8	Calcium oxide			750	575
		K35100	Cement/concrete/mortar		58
		K35120	Fireproof cement		90
		R30300	Raw materials for production of rubber products		294
		R30700	Raw materials for production of metals		11
		R30800	Raw materials for production of plastics		50

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		S65100	Moulding compounds		23
		U05100	Sealants		14
		U05300	Putty		24
		U05400	Filling materials, other		11
131341-86-1	1H-Pyrrole-3-carbonitrile, 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-			8	
1317-38-0	Copper oxide			56	31
		B15720	Antifouling		16
		P15500	Catalysts		15
1317-39-1	Copper oxide			170	123
		B15720	Antifouling		42
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		34
		M05643	Paint and varnish - Curing paint - Other/ decorative - Industrial use		22
		T15335	Printing inks - No thinner - Flexocolour (aniline dye) - Other		25
131860-33-8	Benzeneacetic acid, 2-[[6-(2-cyanophenoxy)-4-pyrimidinyl]oxy]-.alpha.-(methoxymethylene)-, methyl ester, (E)-			2	
132-27-4	[1,1'-Biphenyl]-2-ol, sodium salt			24	
1330-43-4	Boric acid, disodium salt			47	
133-07-3	1H-Isoindole-1,3(2H)-dione, 2-[[trichloromethyl]thio]-			5	
1338-23-4	2-Butanone, peroxide			73	62
		H15400	Curing agents, plastic		62
134-62-3	Benzamide, N,N-diethyl-3-methyl-			10	
13463-41-7	Zinc, bis(1-hydroxy-2(1H)-pyridinethionato-O,S)-, (T-4)-			149	109
		F05250	Pigment pastes		23
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		15
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		60
		U05100	Sealants		11
13590-97-1	Guanidine, dodecyl-, monohydrochloride			11	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
137-26-8	Thioperoxydicarbonic diamide, tetramethyl-			354	339
		R30300	Raw materials for production of rubber products		339
138261-41-3	2-Imidazolidinimine, 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-			16	
13863-41-7	Bromine chloride			2	
139734-65-9	Amines, N-C10-16-alkyltrimethylenedi-, reaction products with chloroacetic acid			12	
143-07-7	Dodecanoic acid			97	59
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		47
		R30500	Raw materials for production of cosmetics etc		12
14548-60-8	Methanol, (phenylmethoxy)-			53	12
		H15100	Concrete hardeners		12
148-79-8	1H-Benzimidazole, 2-(4-thiazolyl)-			6	
14915-37-8	Copper, bis(1-hydroxy-2(1H)-pyridinethionato-O,S)-			14	12
		B15720	Antifouling		12
153719-23-4	4H-1,3,5-Oxadiazin-4-imine, 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-			3	
15733-22-9	Phenol, 4-chloro-3-methyl-, sodium salt			23	
160430-64-8	Ethanimidamide, N-[(6-chloro-3-pyridinyl)methyl]-N'-cyano-N-methyl-			1	
164907-72-6	Amines, N-C12-14-alkylpropylenedi-, L-glutamates			1	
168316-95-8	Spinosad			4	
173584-44-6	Indeno[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylic acid, 7-chloro-2,5-dihydro-2-[[[(methoxycarbonyl)[4-(trifluoromethoxy)phenyl]amino]carbonyl]-, methyl ester, (4aS)-			2	
18472-51-0	D-Gluconic acid, compd. with N,N"-bis(4-chlorophenyl)-3,12-diimino-			35	15

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
	2,4,11,13-tetraazatetradecanediiimidamide (2:1)				
		L20050	Veterinary pharmaceuticals		15
20018-09-1	Benzene, 1-[(diiodomethyl)sulfonyl]-4-methyl-			1	
20427-59-2	Copper hydroxide			13	
20667-12-3	Silver oxide			1	
20859-73-8	Aluminum phosphide			2	
214710-34-6	Boric acid (H3BO3), polymer with N-decyl-1-decanamine, oxirane and 1,2-propanediol			1	
21564-17-0	Thiocyanic acid, (2-benzothiazolylthio)methyl ester			10	
23031-36-9	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-, 2-methyl-4-oxo-3-(2-propynyl)-2-cyclopenten-1-yl ester			1	
231937-89-6	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propen-1-yl)-, 2-methyl-4-oxo-3-(2-propen-1-yl)-2-cyclopenten-1-yl ester, (1R)-			3	
2372-82-9	1,3-Propanediamine, N-(3-aminopropyl)-N-dodecyl-			78	28
		B15120	Private area and public health area disinfectants and other biocidal products		17
		B15140	Food and feed area disinfectants		11
24634-61-5	2,4-Hexadienoic acid, potassium salt, (E,E)-			149	101
		M15400	Rust removers		21
		P15500	Catalysts		17
		R10350	Lime deposit (calcium) remover		25
		R10990	Cleaning/washing agents, other		13
		R30500	Raw materials for production of cosmetics etc		25

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
25254-50-6	1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol, .alpha.,.alpha.',.alpha."-trimethyl-			24	
2527-58-4	Benzamide, 2,2'-dithiobis[N-methyl-			251	227
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		117
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		88
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		22
2527-66-4	1,2-Benzisothiazol-3(2H)-one, 2-methyl-			18	
25655-41-8	2-Pyrrolidinone, 1-ethenyl-, homopolymer, compd. with iodine			25	
25988-97-0	Methanamine, N-methyl-, polymer with (chloromethyl)oxirane			70	31
		B15120	Private area and public health area disinfectants and other biocidal products		31
2634-33-5	1,2-Benzisothiazol-3(2H)-one			5.203	4.758
		A60100	Dressing agents (glazing agents, polishing agents)		13
		B15310	In-can preservatives		49
		B16120	Fungicides		22
		B18100	Car care products and boat care products		46
		B20100	Binding agents for paints, adhesives etc.		378
		B20300	Binding agents, other		40
		D20300	Odour agents, other		16
		F05110	Pigments to paint and printing inks		141
		F05250	Pigment pastes		166
		F05990	Colouring agents, other		164
		F12100	Coating agents		15
		F32990	Photographic chemicals, other		13
		G30200	Flooring materials, other		16
		H15100	Concrete hardeners		10
		K35100	Cement/concrete/mortar		17
		K35900	Construction materials, other		10
		K60350	Fluids for modelling metal, other		25
		L10101	Adhesives - Water based - Industrial use		204

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		L10102	Adhesives - Water based - Consumer use		113
		L10601	Adhesives - Hardener for adhesive - Industrial use		41
		M05132	Paint and varnish - Water base - Active corrosion inhibitor - Exterior		10
		M05133	Paint and varnish - Water base - Active corrosion inhibitor - Industrial use		13
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		642
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		334
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		758
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		298
		M05241	Paint and varnish - Volatile - Other/ decorative - Interior		24
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		14
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		125
		M05449	Paint and varnish - No thinner - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		11
		O25200	Dispersion agents (carriers)		15
		O25300	Emulsifiers		10
		O25400	Anti foaming agents, foamreducing agents		45
		O27900	Surface treatment, other		32
		P10100	Polishing agents for lacquers (car wax)		49
		P10150	Polishing agents for leather (incl. shoe polish)		28
		P10500	Wax and other polishing preparations for floors		46
		P10990	Polishing agents, other		26
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)		13
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		69
		R10160	Auto shampoo		19
		R10400	Cleaning/washing agents for dish washing		29
		R10970	Washing agents for textile (detergents)		38
		R10980	Optical whiteners		11
		R10990	Cleaning/washing agents, other		84
		R30800	Raw materials for production of plastics		10

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		R30900	Raw materials for production of paper		26
		S25500	Rinsing agents (textiles)		23
		S45200	Friction-reducing additives		15
		T15121	Printing inks - Water base - Rotogravure - Paper/ cardboard/ paperboard		24
		U05100	Sealants		51
		U05200	Filling		317
		U05300	Putty		19
		V15100	Thickening agents		31
26530-20-1	3(2H)-Isothiazolone, 2-octyl-			775	593
		B15320	Film preservatives		15
		F05110	Pigments to paint and printing inks		29
		F05250	Pigment pastes		115
		F05990	Colouring agents, other		17
		H15100	Concrete hardeners		12
		L10101	Adhesives - Water based - Industrial use		13
		L10102	Adhesives - Water based - Consumer use		41
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		61
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		111
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		42
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		26
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		43
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		20
		U05200	Filling		48
2682-20-4	3(2H)-Isothiazolone, 2-methyl-			4.296	3.919
		B15310	In-can preservatives		39
		B18100	Car care products and boat care products		50
		B20100	Binding agents for paints, adhesives etc.		349
		B20300	Binding agents, other		39
		B35200	Softners		15
		F05110	Pigments to paint and printing inks		127
		F05250	Pigment pastes		279

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		F05990	Colouring agents, other		126
		F12100	Coating agents		16
		F32990	Photographic chemicals, other		11
		G30200	Flooring materials, other		16
		H15100	Concrete hardeners		11
		I05500	Impregnation agents, other		25
		K35100	Cement/concrete/mortar		15
		L05100	Reagents		22
		L05300	Laboratory chemicals, other		22
		L10101	Adhesives - Water based - Industrial use		184
		L10102	Adhesives - Water based - Consumer use		132
		L10601	Adhesives - Hardener for adhesive - Industrial use		31
		L20050	Veterinary pharmaceuticals		24
		M05132	Paint and varnish - Water base - Active corrosion inhibitor - Exterior		13
		M05133	Paint and varnish - Water base - Active corrosion inhibitor - Industrial use		12
		M05139	Paint and varnish - Water base - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)		10
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		597
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		282
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		473
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		122
		M05241	Paint and varnish - Volatile - Other/ decorative - Interior		23
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		26
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		76
		M08100	Additives for paint and varnishes not mentioned elsewhere in the table		14
		O25200	Dispersion agents (carriers)		20
		O25300	Emulsifiers		12
		O25400	Anti foaming agents, foamreducing agents		64
		O25500	Surface active agents, other		15

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		O27900	Surface treatment, other		16
		P10100	Polishing agents for lacquers (car wax)		40
		P10150	Polishing agents for leather (incl. shoe polish)		27
		P10500	Wax and other polishing preparations for floors		36
		P10990	Polishing agents, other		32
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		48
		R10160	Auto shampoo		19
		R10400	Cleaning/washing agents for dish washing		32
		R10970	Washing agents for textile (detergents)		20
		R10990	Cleaning/washing agents, other		87
		R30900	Raw materials for production of paper		44
		S45200	Friction-reducing additives		11
		T15121	Printing inks - Water base - Rotogravure - Paper/ cardboard/ paperboard		24
		U05100	Sealants		53
		U05200	Filling		85
		U05300	Putty		21
		V15100	Thickening agents		32
2699-79-8	Sulfuryl fluoride			3	
27083-27-8	Guanidine, N,N"-1,6-hexanediyldis[N'-cyano-, polymer with 1,6-hexanediamine, hydrochloride			42	18
		B15120	Private area and public health area disinfectants and other biocidal products		18
27519-02-4	9-Tricosene, (Z)-			4	
27668-52-6	1-Octadecanaminium, N,N-dimethyl-N-[3-(trimethoxysilyl)propyl]-, chloride			4	
28159-98-0	1,3,5-Triazine-2,4-diamine, N-(1,1-dimethylethyl)-N'-(cyclopropyl)-6-(methylthio)-			26	14
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		14

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
28772-56-7	2H-1-Benzopyran-2-one, 3-[3-(4'-bromo[1,1'-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-			11	11
		B15510	Rodenticides		11
2893-78-9	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt			29	12
		B15120	Private area and public health area disinfectants and other biocidal products		12
3006-10-8	1-Hexadecanaminium, N-ethyl-N,N-dimethyl-, ethyl sulfate			5	
308069-39-8	Glass, oxide, silver phosphate			1	
32718-18-6	2,4-Imidazolidinedione, bromochloro-5,5-dimethyl-			23	10
		B15120	Private area and public health area disinfectants and other biocidal products		10
330-54-1	Urea, N'-(3,4-dichlorophenyl)-N,N-dimethyl-			120	85
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		14
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		55
		M05642	Paint and varnish - Curing paint - Other/ decorative - Exterior		16
334-48-5	Decanoic acid			28	
33734-57-5	Octaneperoxoic acid			2	
3380-30-1	Phenol, 5-chloro-2-(4-chlorophenoxy)-			2	
3380-34-5	Phenol, 5-chloro-2-(2,4-dichlorophenoxy)-			11	
34123-59-6	Urea, N,N-dimethyl-N'-[4-(1-methylethyl)phenyl]-			24	22
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		22
35367-38-5	Benzamide, N-[[4-chlorophenyl]amino]carbonyl]-2,6-difluoro-			3	
35554-44-0	1H-Imidazole, 1-(2-(2,4-dichlorophenyl)-2-(2-propenyloxy)ethyl)-			1	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
35575-96-3	Phosphorothioic acid, S-((6-chloro-2-oxooxazolo(4,5-b)pyridin-3(2H-yl)methyl) O,O-dimethyl ester			2	
35691-65-7	Pentanedinitrile, 2-bromo-2-(bromomethyl)-			61	12
		L10101	Adhesives - Water based - Industrial use		12
3586-55-8	Methanol, [1,2-ethanediylbis(oxy)]bis-			411	266
		B15310	In-can preservatives		10
		B20100	Binding agents for paints, adhesives etc.		24
		F05110	Pigments to paint and printing inks		11
		F05250	Pigment pastes		20
		G40100	Fertilizers		11
		K60350	Fluids for modelling metal, other		10
		K60500	Cutting fluids, other		18
		L10101	Adhesives - Water based - Industrial use		18
		L10102	Adhesives - Water based - Consumer use		14
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		46
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		26
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		22
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autpaint)		14
		R10990	Cleaning/washing agents, other		10
		U05100	Sealants		12
37247-91-9	Calcium magnesium oxide			7	
3811-73-2	2-Pyridinethiol, 1-oxide, sodium salt			158	103
		K60160	Broaching oils		10
		K60200	Grinding fluids		11
		K60350	Fluids for modelling metal, other		28
		K60450	Fluids for clipping metal, other		17
		K60500	Cutting fluids, other		37
4080-31-3	3,5,7-Triaza-1-azoniatricyclo[3.3.1.1 <sup>3,7</sup> ]decane, 1-(3-chloro-2-propenyl)-, chloride			23	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
420-04-2	Cyanamide			1	
42822-86-6	Cyclohexanemethanol, 2-hydroxy-.alpha.,.alpha.,4-trimethyl-			10	
4299-07-4	1,2-Benzisothiazol-3(2H)-one, 2-butyl-			46	11
		K60350	Fluids for modelling metal, other		11
4719-04-4	1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol			127	10
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		10
50-00-0	Formaldehyde			3.015	2.662
		A60100	Dressing agents (glazing agents, polishing agents)		21
		B20100	Binding agents for paints, adhesives etc.		114
		B20200	Binding agents for moulding sand		24
		B20300	Binding agents, other		127
		F05110	Pigments to paint and printing inks		39
		F05250	Pigment pastes		72
		F05990	Colouring agents, other		23
		F10700	Fixing agents, other		15
		G05400	Galvano-technical agents, other		27
		H15100	Concrete hardeners		14
		H15500	Hardeners, other		23
		K20100	Sequestering agents		14
		K35100	Cement/concrete/mortar		31
		K35900	Construction materials, other		17
		L05300	Laboratory chemicals, other		29
		L10101	Adhesives - Water based - Industrial use		104
		L10102	Adhesives - Water based - Consumer use		25
		L10201	Adhesives - Based on organic thinners - Industrial use		13
		L10202	Adhesives - Based on organic thinners - Consumer use		11
		L10401	Adhesives - Powder - Industrial use		11
		L20050	Veterinary pharmaceuticals		14
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		140
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		70
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		98

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		197
		M05233	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use		507
		M05241	Paint and varnish - Volatile - Other/ decorative - Interior		24
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		16
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		424
		M05249	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		20
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		86
		M05639	Paint and varnish - Curing paint - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)		10
		M05643	Paint and varnish - Curing paint - Other/ decorative - Industrial use		25
		M15500	Surface treatment of metal, other		16
		O25200	Dispersion agents (carriers)		13
		O25400	Anti foaming agents, foamreducing agents		29
		O25500	Surface active agents, other		20
		R10990	Cleaning/washing agents, other		18
		R30300	Raw materials for production of rubber products		19
		R30900	Raw materials for production of paper		14
		R30990	Raw materials, other		23
		T15242	Printing inks - Based on organic thinner - Offset printing - Metal		15
		T15353	Printing inks - No thinner - Serigraphic printing - Plastic		15
		U05100	Sealants		25
		U05200	Filling		50
		U05300	Putty		10
		U05400	Filling materials, other		10
51-03-6	1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-			15	
51200-87-4	Oxazolidine, 4,4-dimethyl-			24	
51229-78-8	3,5,7-Triaza-1-azoniatricyclo[3.3.1.1 <sup>3,7</sup> ]decane, 1-(3-chloro-2-propenyl)-, chloride, (Z)-			11	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
51580-86-0	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt, dihydrate			49	23
		B15120	Private area and public health area disinfectants and other biocidal products		23
52304-36-6	.beta.-Alanine, N-acetyl-N-butyl-, ethyl ester			3	
52315-07-8	Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(3-phenoxyphenyl)methyl ester			5	
52-51-7	1,3-Propanediol, 2-bromo-2-nitro-			2.345	2.029
		B15310	In-can preservatives		33
		B15330	Fibre, leather, rubber and polymerised materials preservatives		14
		B15350	Preservatives for liquid-cooling and processing systems		15
		B18100	Car care products and boat care products		34
		B20100	Binding agents for paints, adhesives etc.		132
		B20300	Binding agents, other		10
		F05110	Pigments to paint and printing inks		104
		F05250	Pigment pastes		45
		F05990	Colouring agents, other		29
		F12100	Coating agents		10
		G30100	Joint-less floors		11
		I05500	Impregnation agents, other		15
		L10101	Adhesives - Water based - Industrial use		171
		L10102	Adhesives - Water based - Consumer use		121
		L10601	Adhesives - Hardener for adhesive - Industrial use		12
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		366
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		199
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		179
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autpaint)		58
		O25100	Wetting agents, Moisturizers		13
		O25200	Dispersion agents (carriers)		15
		O25400	Anti foaming agents, foamreducing agents		81

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		O27900	Surface treatment, other		27
		P10100	Polishing agents for lacquers (car wax)		28
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		12
		R10160	Auto shampoo		12
		R10400	Cleaning/washing agents for dish washing		21
		R10990	Cleaning/washing agents, other		48
		R30900	Raw materials for production of paper		54
		S25990	Rinsing agents, other		10
		T15121	Printing inks - Water base - Rotogravure - Paper/ cardboard/ paperboard		34
		U05100	Sealants		21
		U05200	Filling		95
52645-53-1	Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (3-phenoxyphenyl)methyl ester			11	
52918-63-5	Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-, (S)-cyano(3-phenoxyphenyl)methyl ester, (1R,3R)-			5	
533-74-4	2H-1,3,5-Thiadiazine-2-thione, tetrahydro-3,5-dimethyl-			44	12
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		12
5395-50-6	Imidazo[4,5-d]imidazole-2,5(1H,3H)-dione, tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)-			453	345
		B15120	Private area and public health area disinfectants and other biocidal products		15
		F05250	Pigment pastes		36
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		96
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		61
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		101
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaht)		19

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		17
55406-53-6	Carbamic acid, butyl-, 3-iodo-2-propynyl ester			1.131	967
		B15315	Wood preservatives		20
		B15320	Film preservatives		22
		B16120	Fungicides		13
		F05250	Pigment pastes		91
		I05400	Wood impregnation agents, wood preserving agents, for biocides report under B15315		14
		K60350	Fluids for modelling metal, other		25
		K60450	Fluids for clipping metal, other		27
		K60500	Cutting fluids, other		39
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		126
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		286
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		189
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autpaint)		18
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		40
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		13
		U05200	Filling		44
55566-30-8	Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1) (salt)			10	
55965-84-9	3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixt. with 2-methyl-3(2H)-isothiazolone			4.062	3.702
		A60100	Dressing agents (glazing agents, polishing agents)		17
		B15310	In-can preservatives		49
		B15330	Fibre, leather, rubber and polymerised materials preservatives		10
		B15350	Preservatives for liquid-cooling and processing systems		17
		B18100	Car care products and boat care products		33
		B20100	Binding agents for paints, adhesives etc.		243
		B20300	Binding agents, other		36
		F05110	Pigments to paint and printing inks		127
		F05250	Pigment pastes		169

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		F05990	Colouring agents, other		68
		F12100	Coating agents		12
		G30100	Joint-less floors		10
		G30200	Flooring materials, other		14
		H15100	Concrete hardeners		15
		I05500	Impregnation agents, other		21
		K35100	Cement/concrete/mortar		18
		L05200	Indicators (pH-Indicators)		16
		L05300	Laboratory chemicals, other		26
		L10101	Adhesives - Water based - Industrial use		133
		L10102	Adhesives - Water based - Consumer use		123
		L10601	Adhesives - Hardener for adhesive - Industrial use		26
		M05132	Paint and varnish - Water base - Active corrosion inhibitor - Exterior		13
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		588
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		293
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		409
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		269
		M05241	Paint and varnish - Volatile - Other/ decorative - Interior		20
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		26
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		51
		M05642	Paint and varnish - Curing paint - Other/ decorative - Exterior		15
		M08100	Additives for paint and varnishes not mentioned elsewhere in the table		15
		M15500	Surface treatment of metal, other		15
		O25100	Wetting agents, Moisturizers		11
		O25200	Dispersion agents (carriers)		23
		O25400	Anti foaming agents, foamreducing agents		55
		O27900	Surface treatment, other		28
		P05100	pH-regulating agents		10
		P10100	Polishing agents for lacquers (car wax)		21
		P10500	Wax and other polishing preparations for floors		21

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		P10990	Polishing agents, other		15
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		12
		R10160	Auto shampoo		24
		R10400	Cleaning/washing agents for dish washing		11
		R10990	Cleaning/washing agents, other		48
		R30900	Raw materials for production of paper		57
		R30990	Raw materials, other		10
		S25500	Rinsing agents (textiles)		12
		S25990	Rinsing agents, other		11
		S40500	Anti-set-off agents, other		11
		U05100	Sealants		46
		U05200	Filling		342
		U05300	Putty		14
		V15100	Thickening agents		23
56073-07-5	2H-1-Benzopyran-2-one, 3-(3-[1,1'-biphenyl]-4-yl)-1,2,3,4-tetrahydro-1-naphthalenyl)-4-hydroxy-			9	
56073-10-0	2H-1-Benzopyran-2-one, 3-[3-(4'-bromo[1,1'-biphenyl]-4-yl)-1,2,3,4-tetrahydro-1-naphthalenyl]-4-hydroxy-			1	
5625-90-1	Morpholine, 4,4'-methylenebis-			72	45
		K60350	Fluids for modelling metal, other		13
		K60450	Fluids for clipping metal, other		13
		K60500	Cutting fluids, other		19
57-06-7	1-Propene, 3-isothiocyanato-			3	
5836-29-3	2H-1-Benzopyran-2-one, 4-hydroxy-3-(1,2,3,4-tetrahydro-1-naphthalenyl)-			2	
59-50-7	Phenol, 4-chloro-3-methyl-			33	
60207-90-1	1H-1,2,4-Triazole, 1-((2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl)methyl)-			99	76
		B15315	Wood preservatives		25

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		B16120	Fungicides		10
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		25
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		16
61789-18-2	Quaternary ammonium compounds, coco alkyltrimethyl, chlorides			10	
61790-53-2	Kieselguhr			111	44
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		14
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		16
		P15500	Catalysts		14
6317-18-6	Thiocyanic acid, methylene ester			12	
64-17-5	Ethanol			3.462	3.099
		A05200	Filtration media		132
		A05250	Ion exchanger		12
		A05300	Air cleaners and anti-odour agents (not filters, not deodorants see also D20XXX)		10
		A40300	Anti-freezing agents, other		36
		B15110	Human hygiene biocidal products		34
		B15120	Private area and public health area disinfectants and other biocidal products		129
		B15130	Veterinary hygiene biocidal products		12
		B15140	Food and feed area disinfectants		12
		B15560	Repellents and attractants		21
		B18100	Car care products and boat care products		45
		B20100	Binding agents for paints, adhesives etc.		50
		B20300	Binding agents, other		20
		B55100	Motor fuels		19
		B55300	Fuels, other		29
		B60200	Fuel additives, other		10
		D20200	Deodorants		12
		D20300	Odour agents, other		25
		F05110	Pigments to paint and printing inks		328
		F05250	Pigment pastes		19
		F05990	Colouring agents, other		25

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		G30200	Flooring materials, other		14
		H15500	Hardeners, other		10
		I05500	Impregnation agents, other		23
		L05300	Laboratory chemicals, other		33
		L10101	Adhesives - Water based - Industrial use		34
		L10102	Adhesives - Water based - Consumer use		25
		L10201	Adhesives - Based on organic thinners - Industrial use		27
		L10202	Adhesives - Based on organic thinners - Consumer use		13
		L20050	Veterinary pharmaceuticals		15
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		41
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		33
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		72
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		21
		M05233	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use		13
		M05239	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)		18
		M05241	Paint and varnish - Volatile - Other/ decorative - Interior		20
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		11
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		457
		M05249	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		32
		M05443	Paint and varnish - No thinner - Other/ decorative - Industrial use		11
		M05643	Paint and varnish - Curing paint - Other/ decorative - Industrial use		20
		M10200	Graffiti removers		10
		M15500	Surface treatment of metal, other		14
		O15100	Solvents		211
		O25500	Surface active agents, other		12
		O27900	Surface treatment, other		15
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)		48
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		130

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		R10160	Auto shampoo		13
		R10250	Glass- and window cleaner (window polish)		50
		R10400	Cleaning/washing agents for dish washing		29
		R10500	Spot (stain) removers		10
		R10700	Windscreen washing agents		127
		R10970	Washing agents for textile (detergents)		50
		R10990	Cleaning/washing agents, other		209
		R20100	Underseal materials, incl. cavity seals		11
		R20900	Anti-corrosion materials, other		15
		R30300	Raw materials for production of rubber products		10
		R30500	Raw materials for production of cosmetics etc		39
		R30800	Raw materials for production of plastics		28
		R30990	Raw materials, other		11
		S10100	Writing ink		26
		S25100	Rinsing agents (for dish washing machines)		14
		T15233	Printing inks - Based on organic thinner - Flexocolour (aniline dye) - Plastic		17
		U05100	Sealants		35
		U05200	Filling		30
		V15100	Thickening agents		12
64-18-6	Formic acid			223	87
		B15710	Preservatives for food or feedstocks		12
		F05990	Colouring agents, other		10
		L05300	Laboratory chemicals, other		10
		L10601	Adhesives - Hardener for adhesive - Industrial use		27
		R10990	Cleaning/washing agents, other		28
64359-81-5	3(2H)-Isothiazolone, 4,5-dichloro-2-octyl-			274	227
		B15320	Film preservatives		11
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		54
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		86
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		14
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		22

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		U05200	Filling		40
6440-58-0	2,4-Imidazolidinedione, 1,3-bis(hydroxymethyl)-5,5-dimethyl-			101	63
		L20050	Veterinary pharmaceuticals		50
		R10990	Cleaning/washing agents, other		13
64628-44-0	Benzamide, 2-chloro-N-[[[4-(trifluoromethoxy)phenyl]amino]carbonyl]-			1	
65-85-0	Benzoic acid			176	81
		B20100	Binding agents for paints, adhesives etc.		10
		M05233	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use		14
		M05239	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autpaint)		15
		M05249	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autpaint)		13
		S25500	Rinsing agents (textiles)		29
66204-44-2	Oxazolidine, 3,3'-methylenebis[5-methyl-			131	76
		K60200	Grinding fluids		10
		K60350	Fluids for modelling metal, other		24
		K60450	Fluids for clipping metal, other		14
		K60500	Cutting fluids, other		28
66215-27-8	1,3,5-Triazine-2,4,6-triamine, N-cyclopropyl-			1	
66230-04-4	Benzenecetic acid, 4-chloro-.alpha.-(1-methylethyl)-, cyano(3-phenoxyphenyl)methyl ester, [S-(R*,R*)]-			1	
67375-30-8	Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(3-phenoxyphenyl)methyl ester, [1-alpha.(S*),3.alpha.]-(+.-)-			3	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
67564-91-4	Morpholine, 4-[3-[4-(1,1-dimethylethyl)phenyl]-2-methylpropyl]-2,6-dimethyl-, cis-			3	
67-63-0	2-Propanol			4.368	4.002
		A40100	De-icing agents		13
		A40300	Anti-freezing agents, other		40
		A55100	Anti-static agents		14
		B15110	Human hygiene biocidal products		27
		B15120	Private area and public health area disinfectants and other biocidal products		136
		B15130	Veterinary hygiene biocidal products		10
		B15140	Food and feed area disinfectants		29
		B18100	Car care products and boat care products		132
		B20100	Binding agents for paints, adhesives etc.		19
		B35200	Softeners		14
		B55300	Fuels, other		16
		B60200	Fuel additives, other		19
		D20300	Odour agents, other		21
		F05110	Pigments to paint and printing inks		308
		F05250	Pigment pastes		191
		F05990	Colouring agents, other		13
		F15100	Flotation agents		18
		F50100	Flocculating chemicals		13
		G05400	Galvano-technical agents, other		15
		H15500	Hardeners, other		13
		I05100	Leather impregnation agents		15
		I05300	Textile impregnation agents		16
		K40100	Contactors (electrical)		12
		K55100	Cooling agents		11
		L05300	Laboratory chemicals, other		40
		L10101	Adhesives - Water based - Industrial use		10
		L10102	Adhesives - Water based - Consumer use		14
		L10201	Adhesives - Based on organic thinners - Industrial use		15

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		L15100	Flux agents for soldering		27
		L20050	Veterinary pharmaceuticals		58
		M05139	Paint and varnish - Water base - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)		40
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		149
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		71
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		33
		M05149	Paint and varnish - Water base - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		10
		M05233	Paint and varnish - Volatile - Active corrosion inhibitor - Industrial use		251
		M05239	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopaint)		39
		M05241	Paint and varnish - Volatile - Other/ decorative - Interior		16
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		10
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		251
		M05249	Paint and varnish - Volatile - Other/ decorative - Other (including road-, art-, furniture-, autopaint)		68
		M05633	Paint and varnish - Curing paint - Active corrosion inhibitor - Industrial use		17
		M05643	Paint and varnish - Curing paint - Other/ decorative - Industrial use		20
		M15400	Rust removers		24
		M15500	Surface treatment of metal, other		14
		O15100	Solvents		126
		O25100	Wetting agents, Moisturizers		13
		O25200	Dispersion agents (carriers)		15
		O25300	Emulsifiers		14
		O25400	Anti foaming agents, foamreducing agents		12
		O25500	Surface active agents, other		30
		O27900	Surface treatment, other		20
		O30100	Stove black polish		24
		P10100	Polishing agents for lacquers (car wax)		33
		P10150	Polishing agents for leather (incl. shoe polish)		24

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		P10500	Wax and other polishing preparations for floors		13
		P10990	Polishing agents, other		16
		P15500	Catalysts		12
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)		102
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		128
		R10160	Auto shampoo		39
		R10250	Glass- and window cleaner (window polish)		117
		R10350	Lime deposit (calcium) remover		33
		R10400	Cleaning/washing agents for dish washing		20
		R10500	Spot (stain) removers		16
		R10700	Windscreen washing agents		106
		R10970	Washing agents for textile (detergents)		31
		R10990	Cleaning/washing agents, other		382
		R15100	Cracking indicators		26
		R20200	Corrosion inhibitors		10
		R20900	Anti-corrosion materials, other		12
		R30500	Raw materials for production of cosmetics etc		13
		R30990	Raw materials, other		11
		S10100	Writing ink		14
		S25100	Rinsing agents (for dish washing machines)		26
		S25500	Rinsing agents (textiles)		105
		S40400	Slip agents for sand moulding		12
		S40500	Anti-set-off agents, other		21
		S45110	Base oil		36
		S45180	Motor oils		10
		S45200	Friction-reducing additives		15
		S45300	Lubricants, other		35
		T20100	Drying agents		11
		U05100	Sealants		10
		V15100	Thickening agents		17
67-97-0	Cyclohexanol, 3-[(2E)-2-[(1R,3aS,7aR)-1-[(1R)-1,5-dimethylhexyl]octahydro-			25	17

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
	7a-methyl-4H-inden-4-ylidene]ethylidene]-4-methylene-, (1S,3Z)-				
		L20050	Veterinary pharmaceuticals		17
68038-70-0	Bacillus subtilis			55	28
		R10130	Drain Cleaners		11
		R10990	Cleaning/washing agents, other		17
68038-71-1	Bacillus thuringiensis			15	
68359-37-5	Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(4-fluoro-3-phenoxyphenyl)methyl ester			2	
68391-01-5	Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides			74	64
		B15120	Private area and public health area disinfectants and other biocidal products		14
		M15400	Rust removers		15
		R10350	Lime deposit (calcium) remover		17
		R10990	Cleaning/washing agents, other		18
68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides			224	151
		B15120	Private area and public health area disinfectants and other biocidal products		78
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		12
		R10990	Cleaning/washing agents, other		61
68424-95-3	Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides			7	
68909-20-6	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, reaction products with silica			337	227
		O25400	Anti foaming agents, foamreducing agents		16
		R30300	Raw materials for production of rubber products		198
		S65100	Moulding compounds		13
69-72-7	Benzoic acid, 2-hydroxy-			183	85

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		B15130	Veterinary hygiene biocidal products		10
		G30100	Joint-less floors		26
		H15400	Curing agents, plastic		10
		H15500	Hardeners, other		20
		L20050	Veterinary pharmaceuticals		19
70161-44-3	Glycine, N-(hydroxymethyl)-, monosodium salt			79	28
		L20050	Veterinary pharmaceuticals		13
		R10990	Cleaning/washing agents, other		15
70592-80-2	Amines, C10-16-alkyldimethyl, N-oxides			26	
70693-62-8	Potassium peroxymonosulfate sulfate (K5H3(SO3(O2))2(SO4)2)			38	25
		B15120	Private area and public health area disinfectants and other biocidal products		25
71-23-8	1-Propanol			510	383
		B15120	Private area and public health area disinfectants and other biocidal products		13
		F05110	Pigments to paint and printing inks		204
		F05250	Pigment pastes		86
		M05139	Paint and varnish - Water base - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopa int)		15
		M05239	Paint and varnish - Volatile - Active corrosion inhibitor - Other (including road-, art-, furniture-, autopa int)		12
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		13
		M05243	Paint and varnish - Volatile - Other/ decorative - Industrial use		16
		O15100	Solvents		12
		S10100	Writing ink		12
7173-51-5	1-Decanaminium, N-decyl-N,N-dimethyl-, chloride			193	135
		B15120	Private area and public health area disinfectants and other biocidal products		47
		B15140	Food and feed area disinfectants		23
		F05250	Pigment pastes		20

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		13
		R10990	Cleaning/washing agents, other		32
71751-41-2	Avermectin B1			1	
72963-72-5	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-, [2,5-dioxo-3-(2-propynyl)-1-imidazolidinyl]methyl ester			2	
731-27-1	Methanesulfenamide, 1,1-dichloro-N-[(dimethylamino)sulfonyl]-1-fluoro-N-(4-methylphenyl)-			159	129
		I05400	Wood impregnation agents, wood preserving agents, for biocides report under B15315		10
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		19
		M05242	Paint and varnish - Volatile - Other/ decorative - Exterior		100
7440-22-4	Silver			36	13
		L15990	Soldering agents, other		13
7440-50-8	Copper			188	73
		B15720	Antifouling		27
		S45110	Base oil		20
		S45300	Lubricants, other		26
7446-09-5	Sulfur dioxide			30	
74-90-8	Hydrocyanic acid			6	
75-21-8	Oxirane			229	96
		F05110	Pigments to paint and printing inks		16
		K60500	Cutting fluids, other		11
		O25300	Emulsifiers		13
		O25500	Surface active agents, other		25
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		10
		R10990	Cleaning/washing agents, other		21
7553-56-2	Iodine			30	11
		B15130	Veterinary hygiene biocidal products		11
7647-01-0	Hydrochloric acid			474	334

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		B18100	Car care products and boat care products		11
		B20300	Binding agents, other		13
		F05990	Colouring agents, other		15
		G05400	Galvano-technical agents, other		13
		K35500	Road paving materials		11
		L05250	Nutritive medium		17
		L05300	Laboratory chemicals, other		91
		M15100	Metal staining agents		10
		M15500	Surface treatment of metal, other		12
		P05100	pH-regulating agents		27
		R10350	Lime deposit (calcium) remover		33
		R10990	Cleaning/washing agents, other		67
		R30990	Raw materials, other		14
7647-15-6	Sodium bromide			83	20
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		20
7681-52-9	Hypochlorous acid, sodium salt			256	237
		B15120	Private area and public health area disinfectants and other biocidal products		26
		B15140	Food and feed area disinfectants		16
		B15150	Drinking water disinfectants		10
		B25300	Bleaching agents, other, see also F32100		10
		L05300	Laboratory chemicals, other		13
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		12
		R10370	Cleaning/washing agents for washing machines		10
		R10400	Cleaning/washing agents for dish washing		16
		R10600	Foam cleaning/washing agents		26
		R10990	Cleaning/washing agents, other		98
7681-57-4	Disulfurous acid, disodium salt			159	35
		B20100	Binding agents for paints, adhesives etc.		10
		G05400	Galvano-technical agents, other		10
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		15
7722-84-1	Hydrogen peroxide			343	235

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
		B15120	Private area and public health area disinfectants and other biocidal products		32
		B15140	Food and feed area disinfectants		33
		B25200	Bleaching agents for textiles		17
		B25300	Bleaching agents, other, see also F32100		21
		H15400	Curing agents, plastic		56
		L05300	Laboratory chemicals, other		13
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		10
		O27900	Surface treatment, other		10
		O40200	Oxidation agents, other		14
		R10990	Cleaning/washing agents, other		29
7727-37-9	Nitrogen			96	54
		G40100	Fertilizers		19
		L05300	Laboratory chemicals, other		23
		S75400	Welding products, other		12
7747-35-5	1H,3H,5H-Oxazolo[3,4-c]oxazole, 7a-ethylidihydro-			22	
7758-99-8	Sulfuric acid, copper(2+) salt (1:1), pentahydrate			100	32
		G40100	Fertilizers		32
7761-88-8	Nitric acid, silver(1+) salt			26	
7775-27-1	Peroxydisulfuric acid, disodium salt			67	13
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		13
7778-54-3	Hypochlorous acid, calcium salt			27	26
		B15120	Private area and public health area disinfectants and other biocidal products		26
7782-50-5	Chlorine			19	
7783-20-2	Sulfuric acid diammonium salt			215	107
		B16130	Herbicides (weed killers)		11
		F50100	Flocculating chemicals		18
		G40100	Fertilizers		78
7783-90-6	Silver chloride			22	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
77-92-9	1,2,3-Propanetricarboxylic acid, 2-hydroxy-			880	670
		B15120	Private area and public health area disinfectants and other biocidal products		13
		B15142	Sanitation agents for toilets		13
		B18100	Car care products and boat care products		11
		E10100	Electrolytes		12
		F50100	Flocculating chemicals		29
		G40100	Fertilizers		21
		L05300	Laboratory chemicals, other		18
		L20050	Veterinary pharmaceuticals		49
		M15400	Rust removers		26
		M15500	Surface treatment of metal, other		11
		P05100	pH-regulating agents		14
		R10100	Degreasers (cold degreasing, de-waxing, de-polishing)		19
		R10150	General cleaning/washing agents (floor wash, basic cleaning) Incl concentrate		54
		R10350	Lime deposit (calcium) remover		53
		R10370	Cleaning/washing agents for washing machines		16
		R10400	Cleaning/washing agents for dish washing		46
		R10970	Washing agents for textile (detergents)		39
		R10990	Cleaning/washing agents, other		164
		R30500	Raw materials for production of cosmetics etc		17
		S25100	Rinsing agents (for dish washing machines)		18
		S25500	Rinsing agents (textiles)		14
		U05200	Filling		13
79-08-3	Acetic acid, bromo-			4	
79-14-1	Acetic acid, hydroxy-			91	19
		R10990	Cleaning/washing agents, other		19
79-21-0	Ethaneperoxoic acid			46	30
		B15120	Private area and public health area disinfectants and other biocidal products		13
		B15140	Food and feed area disinfectants		17

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
79-33-4	Propanoic acid, 2-hydroxy-, (S)-			134	62
		B15120	Private area and public health area disinfectants and other biocidal products		10
		B15130	Veterinary hygiene biocidal products		17
		R10990	Cleaning/washing agents, other		35
8001-58-9	Creosote			3	
8003-34-7	Pyrethrins			17	
81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-			6	
84665-66-7	Magnesate(2-), bis[2-carboxybenzenecarboperoxoato(2-)-?OO,?O']-, hydrogen, hydrate (1:2:6), (T-4)-			1	
84696-25-3	Margosa, ext.			2	
85409-22-9	Quaternary ammonium compounds, benzyl-C12-14-alkyldimethyl, chlorides			19	
85409-23-0	Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides			17	
87-90-1	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-			54	54
		B15120	Private area and public health area disinfectants and other biocidal products		54
886-50-0	1,3,5-Triazine-2,4-diamine, N-(1,1-dimethylethyl)-N'-ethyl-6-(methylthio)-			122	88
		M05141	Paint and varnish - Water base - Other/ decorative - Interior		19
		M05142	Paint and varnish - Water base - Other/ decorative - Exterior		53
		M05143	Paint and varnish - Water base - Other/ decorative - Industrial use		16
89415-87-2	Hydantoin, 1,3-dichloro-5-ethyl-5-methyl-			1	
89997-63-7	Chrysanthemum cinerariaefolium, ext.			11	
90-43-7	[1,1'-Biphenyl]-2-ol			35	

Cas No.	Name of active substance	Function (listed if more than 10 products)		Number of products	
		Function code	Function name	In total	For the specific function
91465-08-6	Cyclopropanecarboxylic acid, 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-, cyano(3-phenoxyphenyl)methyl ester, [1.alpha.(S*),3.alpha.(Z)]-, (.+-.)-			3	
91722-69-9	Lavender, Lavandula hybrida, ext.			11	
94266-48-5	Pine, ext.			20	
94361-06-5	1H-1,2,4-Triazole-1-ethanol, .alpha.-(4-chlorophenyl)-.alpha.-(1-cyclopropylethyl)-			2	
94667-33-1	Poly(oxy-1,2-ethanediyl), .alpha.-[2-(didecylmethylammonio)ethyl]-.omega.-hydroxy-, propanoate (salt)			2	
	<b>210 active substances in total</b>			<b>45.170</b>	<b>35.955</b>

## **Annex 2: Examples of biocide treated articles**

This annex contains the examples of biocide treated goods that have been identified in the market survey in this project.

The following information is listed for each product:

- Product name (of the original language)
- Product description
- Exact claim written (translated into English)
- Product category
- Labelling (information available regarding biocidal property of the product and name of the active substance)
- Product type (the active substance is belonging to)
- Active substance (if any)
- Manufacturer
- Availability
- Relevant link to webshop
- Evaluation (TA = treated article, BP = biocidal product)

Table 36: Examples of biocide treated goods that have been identified in the market survey in this project

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Cleaning cloth MOBILE CLOTH Nano, 2 pieces multipack (white), approx. 10x10 cm, micromaterial cloth for smartphones, tablets, (sun)glasses, lenses, e-book readers and computer monitors	Cloth for cleaning of different glass surfaces	"Removes up to 98% of bacteria on touchscreen-displays"	Cleaning product	Contains no nanoparticles, no other information	2	-			UK	<a href="http://www.amazon.co.uk/MOBILE-CLOTH-multipack-micromaterial-smartphones/dp/B009VWF1SE">http://www.amazon.co.uk/MOBILE-CLOTH-multipack-micromaterial-smartphones/dp/B009VWF1SE</a>	TA or outside scope (if only physical cleaning)	TA1
e-cloth Kitchen cleaning	Cloth for cleaning of surfaces	"removes up to 99% of all bacteria"	Cleaning product	No information	2	-	-	e-cloth?	NO	<a href="http://lesstrash.no/">http://lesstrash.no/</a>	TA or outside scope (if only physical cleaning)	TA2
LAMILUX Super	laminare	"LAMILUX AntiBac sustainably and efficiently neutralises more than 99.9% of all bacteria on its surface"	laminare	AS is listed, biocidal properties are described, but no other information	2		Nano-silver, unspecified	Lamilux	DK, EU, all over the world	<a href="http://www.plastics.g/construction/antibacterial-surface-of-grp-material-kills-germs/">http://www.plastics.g/construction/antibacterial-surface-of-grp-material-kills-germs/</a>	TA	TA3
Johansen D-form toiletsæde softclose og antibakteriel, hvid	Toilet seat	"antibacterial"	Home products	No information	2	-	-	Johansen	DK	<a href="http://www.elvvs.dk/p/joh-saede-d-form-m-daemper-hvid-885549/">http://www.elvvs.dk/p/joh-saede-d-form-m-daemper-hvid-885549/</a>	TA	TA4

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Laufen Pro toiletsæde m. softclose og antibak overflade	Toilet seat	"antibacterial"	Home products	No information	2	-	-	Laufen	DK	<a href="http://vvscomfort.dk/shop/laufen-pro-toiletsaede-2987p.html">http://vvscomfort.dk/shop/laufen-pro-toiletsaede-2987p.html</a>	TA	TA5
Vägghängd Toalettstol Ifö Sign Komplet 6875 WC-Element 1100 Spolknapp Collis Vit Antibakteriell	Toilet seat	"antibacterial"	Home products	No information	2	-	-	Ifö	SE	<a href="http://www.badshop.se/p/badrum/toalettstolar/installationspaket/vagghangd-toalettstol-ifo-sign-komplett-6875-wc-element-1100-spolknapp-collis-vit-antibakteriell.html">http://www.badshop.se/p/badrum/toalettstolar/installationspaket/vagghangd-toalettstol-ifo-sign-komplett-6875-wc-element-1100-spolknapp-collis-vit-antibakteriell.html</a>	TA	TA6
Croydex Toilet Seat Anti-Bacterial Slow-close Hinge White	Toilet seat	"antibacterial"	Home products	No information	2	-	-	Croydex	UK	<a href="http://www.wilko.com/toilet-seats/croydex-toilet-seat-anti-bacterial-slow-close-hinge-white/invt/0337343">http://www.wilko.com/toilet-seats/croydex-toilet-seat-anti-bacterial-slow-close-hinge-white/invt/0337343</a>	TA	TA7
Beko Kylskåp med antibakteriellt dörrhandtag	Refrigerator with antibacterial handle and odour filter	"antibacterial handle and antibacterial odour filter"	Electronics	No information	2	-	-	Beko	SE	<a href="http://www.bekonordic.se/sn-145130-kylbeh%C3%A5llare.html">http://www.bekonordic.se/sn-145130-kylbeh%C3%A5llare.html</a>	TA	TA8
Antibakteriel etui	Contact lens case	"antibacterial"	Home products	AS is listed, biocidal properties described, no other information	2	-	Silver ioner	Optipak	DK	<a href="http://www.lentiamo.dk/antibakteriel-etui.html">http://www.lentiamo.dk/antibakteriel-etui.html</a>	TA	TA9
30stk Engangs Toilet Mätte Antibakteriel Vandtæt Sæde	Paper towel for toilet seat	"antibacterial"	Home products	No information	2	-	-	?	DK	<a href="http://www.bazaargadgets.com/da/30stk-engangs-toilet-matte-antibakteriel-yandtæt-sæde-cover-paper.html">http://www.bazaargadgets.com/da/30stk-engangs-toilet-matte-antibakteriel-yandtæt-sæde-cover-paper.html</a>	TA	TA10

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Brampton House Anti-bacterial Pillow White Standard	Pillow	"antibacterial"	Home products	No information	2	-	-	Brampton House	Australia	<a href="http://www.spotlightstores.com/bed/bedding/pillows/brampton-house-anti-bacterial-pillow/p/BP80240647">http://www.spotlightstores.com/bed/bedding/pillows/brampton-house-anti-bacterial-pillow/p/BP80240647</a>	TA	TA11
shuian® talsmanden rektangulære sund ventilation kompression plume fløj antibakteriel pude	Pillow	"antibacterial"	Home products	No information	2	-	-	Shuian	DK, UK, FR, ES, DE, IT, P, NE, NO, SE, FI	<a href="http://www.lightinthebox.com/da/shuian-talsmanden-rektangulaer-sund-ventilation-kompression-plume-fløj-antibakteriel-pude">http://www.lightinthebox.com/da/shuian-talsmanden-rektangulaer-sund-ventilation-kompression-plume-fløj-antibakteriel-pude</a>	TA	TA12
Living Anti-bacterial 7.5 Tog Duvet - Double	Duvet	"antibacterial"	Home products	No information	2	-	-	Living	UK	<a href="http://www.argos.co.uk/static/Product/partNumber/1278233.htm">http://www.argos.co.uk/static/Product/partNumber/1278233.htm</a>	TA	TA13
Silentnight Antibacterial Size Duvet, 13.5 Tog	Duvet	"antibacterial"	Home products	No information	2	-	-	Silentnight	UK	<a href="http://www.tesco.com/direct/silentnight-antibacterial-size-duvet-135-tog/478-6473.prd">http://www.tesco.com/direct/silentnight-antibacterial-size-duvet-135-tog/478-6473.prd</a>	TA	TA14
Antibakterielt trådløst vandtæt industri keyboard med mikro USB receiver, sort (SVENSK layout)	Black computer keyboard	"antibacterial"	Electronics	AS is listed, no other information	2	-	Nano silver	Broll z	DK	<a href="http://www.computer-mester.dk/shop/antibakterielt-traadloest-1044p.html">http://www.computer-mester.dk/shop/antibakterielt-traadloest-1044p.html</a>	TA	TA15
Canon HS-121TGA antibakteriel lommeregner, hvid	White pocket calculator	"antibacterial"	Electronics	No information	2	-	-	Canon	DK	<a href="http://www.lomax.dk/elektronik/kontormaskiner/regnemaskiner/lommeregner-2332/canon-hs-121tga-antibakteriel-lommeregner-hvid-3187300/">http://www.lomax.dk/elektronik/kontormaskiner/regnemaskiner/lommeregner-2332/canon-hs-121tga-antibakteriel-lommeregner-hvid-3187300/</a>	TA	TA16

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Philips elektrisk rakapparat	Electric shaver for men	"antibacterial"	Electronics	No information	2	-	-	Phillips	SE	<a href="http://www.philips.se/c-p/HQ8250_18/8200-series-elektrisk-rakapparat">http://www.philips.se/c-p/HQ8250_18/8200-series-elektrisk-rakapparat</a>	TA	TA17
Decora® Residential and Commercial Grade Switches	Light switch	"antimicrobial"	Electronics	AS is listed, but not specified, biocidal properties are described, but no other information	2	-	Silver alloy	Leviton	DK, SE, UK, IT, NO, F, DE, BE, NE, PL, ES	<a href="http://www.leviton.com/OA_HTML/SectionDisplay.jsp?section=41454&amp;minisite=10251&amp;ef1=&amp;ef2=&amp;ef3=&amp;ef4=&amp;ef5=Feature-574051&amp;ef6=&amp;ef7=&amp;ef8=&amp;ef9=&amp;ef10=&amp;ef11=&amp;ef12=">http://www.leviton.com/OA_HTML/SectionDisplay.jsp?section=41454&amp;minisite=10251&amp;ef1=&amp;ef2=&amp;ef3=&amp;ef4=&amp;ef5=Feature-574051&amp;ef6=&amp;ef7=&amp;ef8=&amp;ef9=&amp;ef10=&amp;ef11=&amp;ef12=</a>	TA	TA18
Antibacterial 2-way switch Mosaic - with LED indicator - 10 AX - 2 modules	Light switch	"antibacterial"	Electronics	No information	2	-	-	Legrand	F	<a href="http://www.legrand.com/ecat_export/078712-antibacterial-2-way-switch-mosaic.html">http://www.legrand.com/ecat_export/078712-antibacterial-2-way-switch-mosaic.html</a>	TA	TA19
Blomberg GUN 9486 XSP20 opvaskemaskine	Dishwasher with antibacteriel sealing	"antibacterial"	Electronics?	No information	2	-	-	Blomberg	DK	<a href="http://www.blomberg.dk/da/hvidevarer/opvaskemaskiner/indunderbygning/gun-9486-xsp20.aspx?PID=2">http://www.blomberg.dk/da/hvidevarer/opvaskemaskiner/indunderbygning/gun-9486-xsp20.aspx?PID=2</a>	TA	TA20
Antikvalster och dammallergifri kudde orginal orthomagon	Pillow	"antibacterial"	Home products	No information	2 or 18	-	-	Orthomagon	SE, DE	<a href="http://www.vippon.com/antikvalster-och-dammallergifri-kudde-orginal-orthomagon/product-details.php/products_id/1421/">http://www.vippon.com/antikvalster-och-dammallergifri-kudde-orginal-orthomagon/product-details.php/products_id/1421/</a>	TA	TA21
Silentnight Anti-Bacterial Pillow Twinpack	Pillow	"antibacterial"	Home products	No information	2/9	-	-	Silentnight	UK	<a href="http://www.tesco.com/direct/silentnight-anti-bacterial-pillow-twinpack/207-4357.prd">http://www.tesco.com/direct/silentnight-anti-bacterial-pillow-twinpack/207-4357.prd</a>	TA	TA22

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
The WC wunder brush	Toilet brush	"antibacterial and antimicrobial"	Home products	No information. Link no longer available.	2/9	-	Silver ions	WC Wunder	UK	<a href="http://www.wcwunder.co.uk/">http://www.wcwunder.co.uk/</a>	TA	TA23
Sea to Summit Drylite antibakteriell handduk	Towel	"antibacterial"	Home products	Biocidal properties described, no other information	2/9	-	Silver ions	DryLite	SE	<a href="https://www.fruugo.se/sea-to-summit-drylite-antibakteriell-handduk-medium-berry/p-3528691">https://www.fruugo.se/sea-to-summit-drylite-antibakteriell-handduk-medium-berry/p-3528691</a>	TA	TA24
Måtte til vådrum, af hygiejnisk, skridsikkert, antibakteriel og svampedræbende EVA	Mat for use on floors in wet rooms	"antibacterial and kills fungus"	Home products	No information	2/9	-	-	?	DK	<a href="http://www.ajprodukt.dk/omkldningsrum/vadrumsmatter/matte-til-vadrum-af-hygiejnisk-skridsikkert-antibakteriel-og-svampedræbende-eva/68533-2627547.wf">http://www.ajprodukt.dk/omkldningsrum/vadrumsmatter/matte-til-vadrum-af-hygiejnisk-skridsikkert-antibakteriel-og-svampedræbende-eva/68533-2627547.wf</a>	TA	TA25
Phantom Boksehandsker Ultra Training Blå	Boxing gloves	"antimicrobial and anti odour"	Leisure equipment	No information	2/9	-	-	Phantom	DK	<a href="http://www.fit4fight.dk/shop/phantom-boksehandsker-10460p.html?utm_source=pricerunner&amp;utm_medium=cpc&amp;utm_campaign=pricerunner">http://www.fit4fight.dk/shop/phantom-boksehandsker-10460p.html?utm_source=pricerunner&amp;utm_medium=cpc&amp;utm_campaign=pricerunner</a>	TA	TA26
SPLAT	antibacterial toothbrush for children	"antibacterial"	Sanitary product	AS is listed, no information.	2/9		silver unspecified	SPLAT	DK, UK	<a href="http://www.splatglobal.com/catalog/splat/units/junior?targetComponent=page.content">http://www.splatglobal.com/catalog/splat/units/junior?targetComponent=page.content</a>	TA	TA27
X-socks - Run sky run	Running textile socks	"reduces the spreading of bacteria and neutralize bad odour"	Clothing	AS is listed, no other information	2/9		Silver, unspecified		SE	<a href="http://www.kemi.se/Documents/Publikationer/Trycksaker/PM/PM1_12_Antibacteriel.pdf">http://www.kemi.se/Documents/Publikationer/Trycksaker/PM/PM1_12_Antibacteriel.pdf</a>	TA	TA28

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Bionaire – antibakteriell matta	Matt for cats in the cat litter box	"antibacterial"	Product for pets	No information	3	-	-	Oster	SE	<a href="http://www.kattprylar.nu/produkt/bionaire-antibakteriell-matta/">http://www.kattprylar.nu/produkt/bionaire-antibakteriell-matta/</a>	TA	TA29
Oster Antibacterial Litter Mat	Litter mat for cats	"antibacterial"	Product for pets	No information	3	-	-	Oster	UK, DK	<a href="http://www.amazon.co.uk/Oster-82696-Antibacterial-Litter-Mat/dp/B0030NLMFQ/ref=sr_1_15/277-4250560-5864467?s=pets-supplies&amp;ie=UTF8&amp;qid=1445255928&amp;sr=1_15&amp;keywords=antibacterial+cat+litter+and">http://www.amazon.co.uk/Oster-82696-Antibacterial-Litter-Mat/dp/B0030NLMFQ/ref=sr_1_15/277-4250560-5864467?s=pets-supplies&amp;ie=UTF8&amp;qid=1445255928&amp;sr=1_15&amp;keywords=antibacterial+cat+litter+and</a> <a href="http://www.mypets.dk/shop/oster-antibakteriel-kattemaatte-26481p.html">http://www.mypets.dk/shop/oster-antibakteriel-kattemaatte-26481p.html</a>	TA	TA30
Karma Wrap	Kind of T-shirt for dogs	"antibacterial"	Product for pets	No information	3	-	-	?	DK	<a href="http://www.modiogo.dk/undersider/sortiment/sortimentsider/tilhund/tilhund.php">http://www.modiogo.dk/undersider/sortiment/sortimentsider/tilhund/tilhund.php</a>	TA	TA31
KBF99 Hovbørste/Vaskebørste, Antibakteriel	Brush for horses hoof	"antibacterial"	Product for pets	No information	3	-	-		DK	<a href="http://www.contact-saddle.com/shop/kbf99-hovboerste-vaskeboerste-1285p.html">http://www.contact-saddle.com/shop/kbf99-hovboerste-vaskeboerste-1285p.html</a>	TA	TA32
RAMBO Supreme - udendørs overgangsdækken med 200 g fyld	Horse blanket	"antibacterial"	Product for pets	No information	3	-	-	Horsewear	DK, IR	<a href="http://www.nethesten.dk/shop/rambo-supreme-med-464p.html">http://www.nethesten.dk/shop/rambo-supreme-med-464p.html</a>	TA	TA33
Mikrofiber hvalpe tandbørste, antibakteriel	Antibacterial microfiber finger toothbrush	"antibacterial"	Product for pets	AS is listed, no other information	3	-	silver	BOGAR	DK	<a href="http://www.foderboxen.dk/shop/mikrofiber-hvalpe-tandboerste-antibakteriel/">http://www.foderboxen.dk/shop/mikrofiber-hvalpe-tandboerste-antibakteriel/</a>	TA	TA34

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Sanocoat	anti-microbial packaging	"anti-microbal"	Kitchen product	Explanation of biocidal properties, but no information about the active substance or other information	4			Mondi	World wide, UK	<a href="http://www.mondigroup.com/products/desktopdefault.aspx/tabid-1250/">http://www.mondigroup.com/products/desktopdefault.aspx/tabid-1250/</a>	TA	TA35
køkkenredskaber multifunktionelle køkken høj tætte bånd fad rille antibakterielle skærebræt	Antibacterial cutting board	"antibacterial"	Kitchen product	No information	4	-	-	-	World wide	<a href="http://www.lightinthebox.com/da/kokkenredskaber-multifunktionelle-kokken-hoej-taette-baand-fad-rille-antibakterielle-skaerebraet_p217428_1.html">http://www.lightinthebox.com/da/kokkenredskaber-multifunktionelle-kokken-hoej-taette-baand-fad-rille-antibakterielle-skaerebraet_p217428_1.html</a>	TA	TA36
Gorenje R6192KX Køleskab	Refrigerator with antibacterial Ion-air technology	"exterminate 95% of all bacteria"	Electronics	No information	4	-	-	Gorenje	DK	<a href="http://www.gorenje.dk/produkter/store-harde-hvidevarer/kol-og-frys/modeller/koleskabe?filter=ion;">http://www.gorenje.dk/produkter/store-harde-hvidevarer/kol-og-frys/modeller/koleskabe?filter=ion;</a> <a href="http://www.gorenje.dk/produkter/store-harde-hvidevarer/kol-og-frys/modeller/koleskabe/457931">http://www.gorenje.dk/produkter/store-harde-hvidevarer/kol-og-frys/modeller/koleskabe/457931</a>	TA	TA37
Osprey Hydraulics 2L Reservoir	2 Liter water reservoir	"Antibacterial film"	Leisure equipment	No information. Link no longer available.	4	-	-	Osprey	DK	<a href="http://www.spejdersport.dk/osprey-hydraulics-2l-reservoir.aspx">http://www.spejdersport.dk/osprey-hydraulics-2l-reservoir.aspx</a>	TA	TA38
Blomberg SSM 9640 X A+ Køleskab	Refrigerator with antibacterial door	"antibacterial door packing"	Electronics?	No information	4	-	-	Grundig	DK	<a href="http://www.blomberg.dk/da/hvidevarer/kol-frys/koeskabe/ssm-">http://www.blomberg.dk/da/hvidevarer/kol-frys/koeskabe/ssm-</a>	TA	TA39

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
										<a href="http://www.9640-x-a.aspx?PID=2">9640-x-a.aspx?PID=2</a>		
Whirpool Antibakteriafilter för kylskåp	Filter for refrigerator	"antibacterial"	Electronics?	No information	4	-	-	Whirpool	SE	<a href="http://www.elgiganten.se/product/481248048172/whirpool-antibakteriafilter-for-kylskap">http://www.elgiganten.se/product/481248048172/whirpool-antibakteriafilter-for-kylskap</a>	TA	TA40
Køleskab Hotpoint E3D AA W	Refrigerator with antibacterial film	"antibacterial film"	Electronics?	No information. The information regarding antibacterial has been removed.	4			Hotpoint	DK	<a href="http://www.hotpoint.eu/produkt_h/K%C3%B8leskab_K%C3%B8lefryseskab_E3D_AA_W/pid_F086107DK.do">http://www.hotpoint.eu/produkt_h/K%C3%B8leskab_K%C3%B8lefryseskab_E3D_AA_W/pid_F086107DK.do</a>	TA	TA41
Rösle Opvaskebørste antibakteriel	Antibacterial washing-up brush	"antibacterial"	Kitchen product	No information	4/9			Rösle	DK	<a href="http://www.ibob.dk/rosle-opvaskeborste-antibakteriel">http://www.ibob.dk/rosle-opvaskeborste-antibakteriel</a>	TA	TA42
Krono Original® A.B.C. Anti-Bacterial Coating	Tiles/floor	"antibacterial"	Construction product	No information	7 or 9	-	-	Krono Original	DE	<a href="http://www.krono-original.com/laminat-e-antibacterial">http://www.krono-original.com/laminat-e-antibacterial</a>	TA	TA43
Flexi Tile fliser	Tiles	"antibacterial - removes 99.9% bacteria"	Construction product	No information	7 or 9	-	-	Flexi-tile	DK	<a href="http://flexi-tile.dk/flexi-tile-gulve/om-flexi-tile">http://flexi-tile.dk/flexi-tile-gulve/om-flexi-tile</a>	TA	TA44
Bergo Soft Tile	Floor	"antibacterial"	Construction product	No information	7 or 9	-	-	Bergo	SE	<a href="http://www.bergoflooring.com/sv/produkt/bergo-soft-tile">http://www.bergoflooring.com/sv/produkt/bergo-soft-tile</a>	TA	TA45
Antibacterial Epoxy Sealant	Sealant for ceramic tiles	"antibacterial"	Construction product	Link no longer available. No information.	7/9/10?	-	-	Litokol	IT	<a href="http://www.starlike.it/index.php/en/starlike-defender-en/features">http://www.starlike.it/index.php/en/starlike-defender-en/features</a>	TA	TA46

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
mænds antibakterielle boxer shorts	Antibacterial boxer shorts	"antibacterial"	Clothing	No information	9	-	Silver unspecified	?	DK, UK, FR, I, ES, DE, NE	<a href="http://www.waterproofclothes.net/da/men-s-antibacterial-boxer-shorts.html">http://www.waterproofclothes.net/da/men-s-antibacterial-boxer-shorts.html</a>	TA	TA47
Under Armour - ColdBack Run S/S	T-shirt	"anti odour technology"	Clothing	No information	9	-	-	Under Armor	DK	<a href="http://www.miinto.dk/p-1030793-under-armour-coldback-run-s-s?utm_source=zanox&amp;utm_medium=affiliate&amp;zanpid=2089755970195936256">http://www.miinto.dk/p-1030793-under-armour-coldback-run-s-s?utm_source=zanox&amp;utm_medium=affiliate&amp;zanpid=2089755970195936256</a>	TA	TA48
Under Armour - Men's Heatgear 6" Boxer	Boxer shorts	"anti odour technology"	Clothing	No information	9	-	-	Under Armor	DK	<a href="http://www.outnorth.dk/under-armour/men-s-heatgear-6-boxer-2-pack?utm_source=pricerunner&amp;utm_term=Men's%20Heatgear%206%20Boxer%202-Pack&amp;utm_medium=productlinks&amp;utm_campaign=Aucune#Black">http://www.outnorth.dk/under-armour/men-s-heatgear-6-boxer-2-pack?utm_source=pricerunner&amp;utm_term=Men's%20Heatgear%206%20Boxer%202-Pack&amp;utm_medium=productlinks&amp;utm_campaign=Aucune#Black</a>	TA	TA49
Puma YD Stribet Polo Grå	T-shirt	"anti odour technology"	Clothing	No information	9	-	-	PUMA	DK	<a href="http://oj-golf.dk/puma-herre-191/puma-yd-stribet-polo-graa-p1005?utm_source=pricerunner&amp;utm_medium=cpc&amp;utm_campaign=pricerunner">http://oj-golf.dk/puma-herre-191/puma-yd-stribet-polo-graa-p1005?utm_source=pricerunner&amp;utm_medium=cpc&amp;utm_campaign=pricerunner</a>	TA	TA50

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Outdoor Research Men's BioSensor Liners	Gloves	"anti odour"	Clothing	No information	9	-	-	Outdoor Research	DK, DE	<a href="http://www.backpacking-united.com/dk/outdoor-research-men-s-biosensor-liners-890-charcoal?utm_source=PRICERUNNER%20D%C3%84NEMARK&amp;utm_medium=CPC&amp;utm_content=PRICERUNNER%20D%C3%84NEMARK&amp;utm_campaign=PRICERUNNER%20D%C3%84NEMARK">http://www.backpacking-united.com/dk/outdoor-research-men-s-biosensor-liners-890-charcoal?utm_source=PRICERUNNER%20D%C3%84NEMARK&amp;utm_medium=CPC&amp;utm_content=PRICERUNNER%20D%C3%84NEMARK&amp;utm_campaign=PRICERUNNER%20D%C3%84NEMARK</a>	TA	TA51
Blåkläder refleks T-shirt langærmet UV50+ EN471, Gul	Work wear with reflexes	"anti odour function"	Clothing	No information	9	-	-	Blåkläder	DK	<a href="http://billig-arbejdstoj.dk/blaklaeder-refleks-t-shirt-langaermet-uv50-en471">http://billig-arbejdstoj.dk/blaklaeder-refleks-t-shirt-langaermet-uv50-en471</a>	TA	TA52
Häglöfs Ridge II Tee Women	T-shirt for women	"anti odour function"	Clothing	No information	9	-	Minerals, unspecified	Häglöfs	SE	<a href="http://effektlageret.se/product/haglfs-ridge-ii-tee-women-8031/">http://effektlageret.se/product/haglfs-ridge-ii-tee-women-8031/</a>	TA	TA53
7 par antilugt uldstrømper	Socks anti-odour	"anti-odour/odourless"	Clothing	No information	9	-	Sanitized (surface treatment)	Woly?	DK	<a href="http://stroempekompaniet.dk/stroempe-news/46-uld-pakke-med-7-par-antilugt-uldstrømper/">http://stroempekompaniet.dk/stroempe-news/46-uld-pakke-med-7-par-antilugt-uldstrømper/</a>	TA	TA54
ACTIVE Clean Air and Antibacterial Ceramic™	Tiles	"antibacterial"	Construction product	No information	9	-	-	Iris Ceramica	IT	<a href="http://www.irisceramica.com/editoriale.php?id=active">http://www.irisceramica.com/editoriale.php?id=active</a>	TA	TA55
Toalettborste Mr. Maxx antibakteriell	Disinfecting toilet brush	"antibacterial"	Home products	AS is listed, no other information	9	-	Silver ions	?	SE	<a href="http://se.akstroms.com/toalettborste-mr-maxx-antibakteriell">http://se.akstroms.com/toalettborste-mr-maxx-antibakteriell</a>	TA	TA56

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Shower Shield shower curtain	Shower curtain	"antibacterial"	Home products	No information. Link no longer available.	9	-	-	?	SE	<a href="http://www.specialgardiner.se/2/duschdraperi.htm">http://www.specialgardiner.se/2/duschdraperi.htm</a>	TA	TA57
Wenko Badeforhæng - Sun Antibakteriel	Shower curtain	"antibacterial"	Home products	No information	9	-	-	Wenko	DK	<a href="http://www.ideshoppen.com/badeforhaeng-110/wenko-badeforhaeng-sun-antibakteriel-p2223">http://www.ideshoppen.com/badeforhaeng-110/wenko-badeforhaeng-sun-antibakteriel-p2223</a>	TA	TA58
DAVS Travel Outdoor snabbtork Antibakteriell handduk med väska och Buckle (2 Color)	Towel	"antibacterial"	Home products	AS is listed, biocidal properties described, no other information. Link no longer available.	9	-	Silver ions	?	SE	<a href="http://www.homeopatiguide.se/ea-sea-to-summit-drylite-antibakteriell-handduk-(med-383293675">http://www.homeopatiguide.se/ea-sea-to-summit-drylite-antibakteriell-handduk-(med-383293675</a>	TA	TA59
loftex høj kvalitet antibakteriel håndklæde 100% bomuld badehåndklæde	Towel	"antibacterial"	Home products	No information. Link no longer available.	9	-	-	Loftex	DK	<a href="http://www.lightinthebox.com/da/loftex-hoej-kvalitet-antibakteriel-haandklaede-100-bomuld-badehaandklaede_p3224848.html">http://www.lightinthebox.com/da/loftex-hoej-kvalitet-antibakteriel-haandklaede-100-bomuld-badehaandklaede_p3224848.html</a>	TA	TA60
Airex Calyana Yoga Mat Ocean Blue 4.5 mm	Yoga mat	"inhibits bacterial growth"	Leisure equipment	No information	9	-	(Sanitized)	Airex	UK	<a href="http://www.physicalcompany.co.uk/airex-bid22.html?catid=8">http://www.physicalcompany.co.uk/airex-bid22.html?catid=8</a>	TA	TA61
Winnie the Pooh, Disney Baby Buff	Buff	"active odour control"	Clothing	AS is listed, no other information	9	-	Silver, unspecified	Disney	SE	<a href="http://www.kemi.se/Documents/Publikationer/Trycksaker/PM/PM1_12_Antibact_eng.pdf">http://www.kemi.se/Documents/Publikationer/Trycksaker/PM/PM1_12_Antibact_eng.pdf</a>	TA	TA62
Papiruld	insulation made from recycled paper	Bor as protection against pests, rot and fungus	insulation	AS are listed, no other information	10	10043-35-3, 1303-96-4	Boric acid, Disodium tetraborate decahydrate	Papiruld Jylland	DK	-	TA	TA63

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
AF/ARMAFLEX	Isolation materiale with antimicrobial protection	antimicrobial	Construction product	No information	10			Armacell	World wide	<a href="http://www.armacell.com/WWW/armacell/INETArmacell.nsf/standard/F8FDF9E8910BF953C125778B005A181F">http://www.armacell.com/WWW/armacell/INETArmacell.nsf/standard/F8FDF9E8910BF953C125778B005A181F</a>	TA	TA64
Myggenet	Mosquito net	impregnated insecticidal treatment	Home products	AS is listed, biocidal properties described, no other information	18	52918-63-5	Deltamethrin		DK	<a href="http://myggenet.dk/butik/myggenet/">http://myggenet.dk/butik/myggenet/</a>	TA	TA65
Mosquito Repellent Clothing	Mosquito Repellent Clothing	"mosquito repellent"	Clothing	No information	19	-	-	Mountain Warehouse	UK	<a href="http://www.mountainwarehouse.com/travel/clothing/anti-mosquito/">http://www.mountainwarehouse.com/travel/clothing/anti-mosquito/</a>	TA	TA66
Nordisk Birk håndsæbe antibakteriel øko	Disinfecting soap	"antibacterial"	Soap, cosmetic product	No information	1 or outside scope of BBR	-	-	Urtekram	DK	<a href="http://www.urtekram.dk/produkter/plejeprодукter/krop--ansigt/nordisk-birk-haandsaebe-antibakteriel-oeko-380-ml">http://www.urtekram.dk/produkter/plejeprодукter/krop--ansigt/nordisk-birk-haandsaebe-antibakteriel-oeko-380-ml</a>	BP or out of scope	BP1
Dettol	Soap for hand wash	"Removes bacterias"	Soap, cosmetic product	No information	1 or outside scope of BPR	-	-	Reckitt Benckiser	DK	<a href="http://www.dettol.dk/products-in-supermarkets-no-touch-hand-wash-system">http://www.dettol.dk/products-in-supermarkets-no-touch-hand-wash-system</a>	BP or out of scope	BP2
Safemate Antibakteriel håndsæbe	Disinfecting soap	"kills 99.9% of all bacteria"	Soap, cosmetic product	No information	1 or outside scope of BPR	-	-	Safemate	DK	<a href="http://manillo.dk/minideals/2410-antibakteriel-handsaebe.html">http://manillo.dk/minideals/2410-antibakteriel-handsaebe.html</a>	BP or out of scope	BP3
J-rens	Cleaning product	Bacteriostatic cleaning	Cleaning product	AS listed in SDS, no other information	2	70161-44-3	Sodium hydroxymethylglycinate	Iduna A/S	DK	<a href="http://renee.dk/universal/antibakteriel-j-rens-5-l">http://renee.dk/universal/antibakteriel-j-rens-5-l</a>	BP	BP4

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Linotral	Fabric softener	"Removes odour" from textiles and has a "antibacterial effect"	Cleaning product	AS listed in SDS, no other information	2	8001-54-5	Benzalkonium chloride	Danlind	DK	<a href="http://www.linds.dk/linotral-5-liter-skyllmiddel.aspx">http://www.linds.dk/linotral-5-liter-skyllmiddel.aspx</a>	BP	BP5
Lelo antibakteriell rengöring	Disinfecting spray for toys for adults	Antibakteriell effect	Disinfecting spray	No information	2	-	-	Lelo	DK, SE,	<a href="https://www.ginza.se/product/lelo-antibakteriell-rengoring-60ml/995947/">https://www.ginza.se/product/lelo-antibakteriell-rengoring-60ml/995947/</a>	BP	BP6
YtRent - Alkoholfri Antibakteriell rengöring	Cleaning spray for exterior surfaces	"Anti-bacteriel"	Cleaning product	AS listed in SDS, no other information	2	133029-32-0	Polybiguanid	Reniax	SE	<a href="http://www.instore24.se/rengoring/ytrent-alkoholfri-antibakteriell-rengoring-750ml-sprayfl/">http://www.instore24.se/rengoring/ytrent-alkoholfri-antibakteriell-rengoring-750ml-sprayfl/</a>	BP	BP7
Antibakteriel Leg etøjsvaskBentley Organic	Disinfecting spray for children toys	"Kills 99.99% bacteria"	Disinfecting spray	No information	2	-	-	Bentley Organic	DK	<a href="http://helsebasen.dk/product/antibakteriell-egetojsvaskbentleyorganic-500-ml-9642/">http://helsebasen.dk/product/antibakteriell-egetojsvaskbentleyorganic-500-ml-9642/</a>	BP	BP8
AM Lab antibakteriell spray	Antibacterial spray for large monitors and TVs	"antibacterial"	Disinfecting spray	No information	2	-	-	AM-LAB	DK	<a href="http://shop.appsandro.id.dk/am-lab-antibakteriel-spray-175-ml-klud-bla-180140">http://shop.appsandro.id.dk/am-lab-antibakteriel-spray-175-ml-klud-bla-180140</a>	BP	BP9
AM Mist - Antibakteriel all-in-one spray	Antibacterial spray for smartphone	"antibacterial"	Disinfecting spray	No information	2	-	-	AM	DK	<a href="http://ryomgaard.tkmo bil.dk/produkter/mobiltilbehoer/anti_bakterier/am/am_mist_antibakteriel_allinone_spray_6923.html">http://ryomgaard.tkmo bil.dk/produkter/mobiltilbehoer/anti_bakterier/am/am_mist_antibakteriel_allinone_spray_6923.html</a>	BP	BP10
AF Foamclean	Universal cleaner of plastic, fabric, metal, car seats etc.	"antibacterial - removes 99.9% of all bacteria"	Cleaning product	No information	2	-	-	AF	DK	<a href="http://shop.printwise.dk/af-foamclean-300ml-spray-antibakteriel-p1070">http://shop.printwise.dk/af-foamclean-300ml-spray-antibakteriel-p1070</a>	BP	BP11

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Sonax aircon og klimarens	Cleaning product for ventilation systems	"removes bacterias and mould fungus"	Cleaning product	No information	2	-	-	Sonax	DK	<a href="http://www.carlab.dk/shop/aircon-klimarens-150ml-256653p.html">http://www.carlab.dk/shop/aircon-klimarens-150ml-256653p.html</a>	BP	BP12
Vanish extra hygiene pulver	Antibacterial textile cleaning	"antibacterial"	Textile detergent	No information	2	-	-	Reckitt Benckiser	DK	<a href="http://www.lomax.dk/rengoering/rengoeringsartikler/toejvask/vaskemidler-2310/vanish-oxidation-extra-hygiene-470g-3270920/">http://www.lomax.dk/rengoering/rengoeringsartikler/toejvask/vaskemidler-2310/vanish-oxidation-extra-hygiene-470g-3270920/</a>	BP	BP13
Diskmedel Flytande Antibakteriellt 500ml Faith in Nature	Dishwashing soap for hand wash of dishes	"antibacterial"	Dishwashing soap	AS listed in SDS, no other information	2	?	No actives. Claim probably based on tensidic properties.	Faith in Nature	SE	<a href="https://www.mathem.se/varor/diskmedel/diskmedel-flytande-antibakteriellt-500ml-faith-in-nature">https://www.mathem.se/varor/diskmedel/diskmedel-flytande-antibakteriellt-500ml-faith-in-nature</a>	BP	BP14
Diskmedel för Delfin glasdisk	Dishwashing soap for hand glass - can be used in cold water	"antibacterial"	Dishwashing soap	No information	2	-	-	Fuchs	SE	<a href="http://prowine.se/product.html/diskmedel-for-delfin-glasdisk">http://prowine.se/product.html/diskmedel-for-delfin-glasdisk</a>	BP	BP15
Desinfektionsmiddel Sonett	Cleaning product for disinfecting surfaces	"disinfecting"	Disinfecting spray	No information	2	-	-	Sonett	DK	<a href="http://www.helsam.dk/hus-og-fritid/rengoerings-og-vaskemidler/desinfektion-og-antibakteriel/desinfektionsmiddel-sonett?id=6606">http://www.helsam.dk/hus-og-fritid/rengoerings-og-vaskemidler/desinfektion-og-antibakteriel/desinfektionsmiddel-sonett?id=6606</a>	BP	BP16
Aloe Vera Antibakteriellt doftämne för vattendammsugare	Perfume for water vacuum cleaners	"neutralizes bad odours, antibacterial"	Antiodour agent	No information	2	-	-	?	SE	<a href="http://sweethus.com/-p-33.html?language=se">http://sweethus.com/-p-33.html?language=se</a>	BP	BP17

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
SigmaCare Immun Mat	antibacterial wall paint for indoor use	"documented antibacterial properties"		AS is listed, but no other information	2	-	Nano-Silver	PPG Coatings Nederland	DK	<a href="http://www.sigmafarg.se/SigmaFarg/Produkter/Vaegg-och-tak/SigmaCare-Immun-Mat">http://www.sigmafarg.se/SigmaFarg/Produkter/Vaegg-och-tak/SigmaCare-Immun-Mat</a>	BP	BP18
C/S Wallglaze® Specialfärger för hygienmiljöer	Special paint for hospitals	"antibacterial, fungistatic, MRSA-resistant"	Private area and public health area disinfectants and other biocidal products	No information	2	-	-	CS Nordic	SE	<a href="http://cs-nordic.com/svenska/farg/">http://cs-nordic.com/svenska/farg/</a>	BP	BP19
Skimmel-Protect maling med mikro-sølv	anti-fungal wall paint for indoor use	"mold protection"	Paint/wood preservative	AS is listed, biocidal properties are described, but no other information	2	-	silver phosphate	Remmers	DK, SE, NO.	<a href="http://www.introflex.dk/skimmel-protect.html">http://www.introflex.dk/skimmel-protect.html</a>	BP	BP20
Polygiene wash in	Antibacterial fabric softener for sport chloting	"antibacterial and removes bad odour"	Fabric softener	Instructions for use, no nanoparticles, safe to use	2/9	-	Silver salt	Polygiene	SE	<a href="http://www.hockeylaget.se/polygiene-wash-in">http://www.hockeylaget.se/polygiene-wash-in</a>	BP	BP21
Exerfit Antibakteriella servietter	Antibacterial wet wipes	"antibacterial"	Product for pets	Product no longer available. No information.	3	-	-	Exerfit	SE	<a href="https://www.xxl.se/xerfit-antibakteriella-servietter/p/1092869_1_style">https://www.xxl.se/xerfit-antibakteriella-servietter/p/1092869_1_style</a>	BP	BP22
AntiSept Chlorhexidine spray	Disinfecting spray for animals	Disinfecting wounds	Disinfecting spray	AS is listed, no other information	3	55-56-1	Chlorhexidine	-	DK	<a href="http://www.netdyrlaege.dk/hund/antisept-chlorhexidine-spray-netdyrlaege">http://www.netdyrlaege.dk/hund/antisept-chlorhexidine-spray-netdyrlaege</a>	BP	BP23
Skin Spray Antibakteriel, med TeaTree oil	Antibacterial spray for skin of the horse for wounds, mould	"antibacterial"	Disinfecting spray	AS is listed, no other information	3	-	Zink, tea tree oil, iodine	?	DK	<a href="http://www.thinkequine.dk/webshop/product.php?id_produkt=6">http://www.thinkequine.dk/webshop/product.php?id_produkt=6</a>	BP	BP24

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Dechra MalAcetic Wet Wipes	Antibacterial wet wipes for animals	"antibacterial properties"	Wet wipes	AS is listed, no other information	3	10043-35-3	Boric acid	Dechra	SE	<a href="https://animail.dk/dechra-malacetic-wet-wipes-100-st.html">https://animail.dk/dechra-malacetic-wet-wipes-100-st.html</a>	BP	BP25
Vaskeklude til hunde, antibakterielle	Antibacterial wet wipes for animals	"antibacterial and neutralises bad odour"	Product for pets	No information	3	-	-	Bogacare	DK	<a href="http://www.foderboxen.dk/shop/vaskeklude-til-hunde-antibakterielle/">http://www.foderboxen.dk/shop/vaskeklude-til-hunde-antibakterielle/</a>	BP	BP26
StrongSkin Wash	Shampoo for treatment of cats and dogs	"antibacterial effect"	Product for pets	No information	3	-	-	StrongSkin	DK	<a href="http://www.alttilhundogkat.dk/saar---hudpleje/?Generelt/HUNDE/PELS,%20PLUJ%20OG%20SOIGNERING/Soignerings%20S%E5r-%20&amp;%20Hudpleje/StrongSkin%20Wash.%20Effektiv%20shampoo%20med%20antibakteriel%20effekt.%20250%20ml./&amp;showitem=13522">http://www.alttilhundogkat.dk/saar---hudpleje/?Generelt/HUNDE/PELS,%20PLUJ%20OG%20SOIGNERING/Soignerings%20S%E5r-%20&amp;%20Hudpleje/StrongSkin%20Wash.%20Effektiv%20shampoo%20med%20antibakteriel%20effekt.%20250%20ml./&amp;showitem=13522</a>	BP	BP27
Aptus Dermocanis Pyoderma antibakteriel shampoo	Shampoo for treatment of cats and dogs	"antibacterial effect"	Product for pets	No information	3	-	-	Aptus	DK	<a href="http://www.dyr-laegensbutik.dk/PELS-HUD/Aptus-Dermocanis-Pyoderma-antibakteriel-shampoo-250-ml.html">http://www.dyr-laegensbutik.dk/PELS-HUD/Aptus-Dermocanis-Pyoderma-antibakteriel-shampoo-250-ml.html</a>	BP	BP28

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Yachticon Aqua Clean	Water disinfectant	AQUA CLEAN keeps your water fresh and safe! In just about two hours, your drinking and portable water is disinfected and fresh. It remains up to six months free of germs and fresh. AQUA CLEAN contains no chlorine or chemicals	drinking water	Information on AS not complete. Statement on content of biocides. Instructions for use may be present on product information.	5	7440-22-4	Silver-salt	Yachticon	DE, DK, NL, UK, FR, SP, IT	<a href="https://www.svb24.com/en/yachticon-aqua-clean-quick.html">https://www.svb24.com/en/yachticon-aqua-clean-quick.html</a>	BP	BP29
Yachticon Aqua Clean Quick	Water disinfectant	AQUA CLEAN QUICK is suitable to disinfect and to keep fresh your drinking and portable water. It is a silver-based product without chlorine.	drinking water	Information on AS not complete. Statement on content of biocides. Instructions for use may be present on product information.	5	7440-22-4, 7778-54-3	Silver, Calcium-hypochlorit	Yachticon	DE, DK, NL, UK, FR, SP, IT	<a href="https://www.svb24.com/en/yachticon-aqua-clean-quick.html">https://www.svb24.com/en/yachticon-aqua-clean-quick.html</a>	BP	BP30
Micropur Classic MC 1'000F	Water disinfectant	Micropur Classic inactivates bacteria in water tanks and containers. It is ecologically friendly and keeps water free from germs, algae and odours. Silver ions preserve water	camping equipment	AS is listed, no other information	5	7440-22-4	Silver ions	Katadyn	DE, EU	<a href="http://shop.yachticon.de/Drinking-Water/Katadyn-Water-Desinfection-Cleaning/Micropur-Classic-MC-1000F::1196.html">http://shop.yachticon.de/Drinking-Water/Katadyn-Water-Desinfection-Cleaning/Micropur-Classic-MC-1000F::1196.html</a>	BP	BP31

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
		for up to 6 months. Technology: Silver ions.										
Aqua-optima	Water filter	"antibacterial"	Kitchen product	No information	5			aqua-optima	UK	<a href="http://www.aqua-optima.com/files/PRE_708_antibac.pdf">http://www.aqua-optima.com/files/PRE_708_antibac.pdf</a> <a href="http://homethingshop.uk.com/aqua-optima-juno-anti-bacteria-filter-jug/">http://homethingshop.uk.com/aqua-optima-juno-anti-bacteria-filter-jug/</a>	BP	BP32
Lakrol træbeskyttelse	Wood protection paint	Wood-protection		SDS available, but no information.	8				DK	<a href="http://www.maling.nu/traebeskyttelse-vandbaseret-heldaekkende-5-ltr/">http://www.maling.nu/traebeskyttelse-vandbaseret-heldaekkende-5-ltr/</a>	BP	BP33
Viking HD vandig træbeskyttelse	Wood protection paint	Wood protection		SDS available, but no information.	8				DK	<a href="http://www.promal.dk/viking-hd-vandig-traebeskyttelse-5-ltr/">http://www.promal.dk/viking-hd-vandig-traebeskyttelse-5-ltr/</a>	BP	BP34
GORI Stop Svamp og Insekt 22/7	Wood preservative for treatment of mould fungus and insects	"treatment of mould fungus, insects, and deathwatch beetles"	Paint/wood preservative	AS are listed, no other information	8		Propiconazol 0,6% w/w (4,83 g/l). Tebuconazol 0,2% w/w (1,60 g/l). 3-Iodo-2-propynyl-butyl-carbamate (IPBC) 0,2% w/w (1,60 g/l). Permethrin 0,2% w/w (1,60 g/l).	GORI	DK	<a href="http://www.gori.dk/produkter/traerestauring-og-behandling-af-insektangreb/gori-stop-svamp-og-insekt-22-7">http://www.gori.dk/produkter/traerestauring-og-behandling-af-insektangreb/gori-stop-svamp-og-insekt-22-7</a> <a href="http://www.gori.dk/media/Gori/Datablade/Sikkerhedsdatablade/Traerestauring%20og%20behandling%20af%20insektangreb/90260-GORI-STOP-Svamp-og-Insekt-22-7.pdf">http://www.gori.dk/media/Gori/Datablade/Sikkerhedsdatablade/Traerestauring%20og%20behandling%20af%20insektangreb/90260-GORI-STOP-Svamp-og-Insekt-22-7.pdf</a>	BP	BP35
Pinotex Classic	Alcyd based wood protection product	Wood protection	Paint/wood preservative	SDS available, but no information.	8	-	-	Akzo Nobel	DK	<a href="http://www.pinotex.dk/produkter/udendørs/traefacade-transparent/classic/">http://www.pinotex.dk/produkter/udendørs/traefacade-transparent/classic/</a>	BP	BP36

Product name	Product description	Exact claim	Product category/material	Labelling	Product type (PT) - no.	Active substance (CAS No.)	Active substance (chemical name)	Manufacturer of product	Availability (countries)	Reference	Evaluation TA/BP	No. TA/BP
Rambo Fly Buster Vamoose (AFAR0V)	Horse blanket	"insect repellent"	Product for pets	Vamoose Insect repellent. No other information.	19			Rambo	UK	<a href="http://hopevalleysaddlery.co.uk/261/Rambo-Fly-Buster-Vamoose-Fly-Rug-(Horse-and-Pony-Sizes)">http://hopevalleysaddlery.co.uk/261/Rambo-Fly-Buster-Vamoose-Fly-Rug-(Horse-and-Pony-Sizes)</a>	BP	BP37





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