



NANO

VERY SMALL AND
EVERYWHERE

**A TECHNOLOGICAL MAGIC SILVER
BULLET OR A SERIOUS SAFETY
RISK?**

NANOTECHNOLOGIES

- use materials on an incredible small scale: one nanometer is 10.000 times smaller than the diameter of a human hair
- have entered every sphere of our daily life: medicines, environmental technology, consumer products and services

NANOMATERIALS

- are engineered on purpose as they have novel physical and chemical properties due to their small scale
- are claimed to be used in many consumer products with which we come in close and direct contact with such as food, food packaging, cosmetics and textiles.
- can potentially bring many benefits for consumers
- also pose a possible new safety threat for human health and the environment
- are insufficiently assessed by independent risk assessment bodies before being used in consumer products
- are insufficiently regulated worldwide, at EU and national level

NANOSILVER

- is claimed to be used in a steeply rising number of products and services due to its antimicrobial properties
- is insufficiently assessed regarding its safety for consumers and the environment
- could possibly contribute to the development of antimicrobial resistances and thereby make important medical uses such as the treatment of burn wounds ineffective

PRODUCTS WITH NANO CLAIMS— INCREASINGLY MARKETED TO CONSUMERS BUT STILL INSUFFICIENTLY ASSESSED REGARDING THEIR SAFETY

1

An increasing number of products claim to contain nano-materials such as cosmetics, textiles, household appliances and products for children. In many other areas such as food contact material, nanotechnologies and nano-materials seem already being used without communicating this to consumers in a transparent way. Thus, consumers currently have little indication whether or not these materials are present in the everyday products they purchase.

Due to the fast rising number of nano-claims on consumer products world-wide, in 2009 ANEC and BEUC compiled their first inventory of products available to consumers in Europe claiming to contain nano-materials. In the course of this market research we found 151 products. In 2010, we updated the 2009 inventory, employing the same methodology and found 475 products available to European consumers¹.

When carrying out the inventories in 2009 and 2010 and monitoring the market in 2011, we observed a tremendous growth of claims related to nano-silver. Prompted by this finding, we decided to dedicate our 2011-2012 market research exclusively to products claiming to contain nano-silver.

Due to its antimicrobial properties, nano-silver is found in diverse forms in many consumer products such as in cosmetics, textiles, food containers and even many products for children such as baby changing mats.

Despite the increasing range of applications, the knowledge deficit as to the safety of these products still exists. Currently, the background studies assessing the safety level of nano-materials in general provide inadequate health and safety reassurance. The use of nanotechnologies in consumer products has been evolving so rapidly that possible negative effects on human health and the environment due to increasing exposure still remains unknown.

In the case of nano-silver there are also concerns that the excessive use of this substance in everyday consumer products could contribute to the development of antimicrobial resistance.

The formation of antimicrobial resistance is a process by which some bacteria withstand the treatment with a substance (e.g. a biocide or antibiotic) to which they are usually sensitive.

Bacteria adapt due to their short reproduction time and mutate easily to changing conditions in the environment. Thus, the bacteria which developed the ability to withstand the treatment have a selective advantage and could become more widespread over time.

Consequently, the treatment agents lose their effectiveness and therefore cannot be used anymore to cure certain diseases.

The formation of an antimicrobial resistance against silver would pose a serious concern as silver is currently used effectively e.g. to treat burn wounds, atopic dermatitis and fungal skin infections.

The German Federal Institute for Risk Assessment (BfR) therefore recommends that nano-silver should not be used in consumer products² as a conclusive assessment of health risks associated with the widespread use of nano-silver has not yet been possible.

In light of the increasingly critical voices from non-governmental organisations and regulators, the European Commission has mandated the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) to carry out a scientific opinion on nano-silver with respect to its impact on safety, health, the environment and its role in antimicrobial resistance by early 2013³.

With this publication, we highlight the need to thoroughly assess the safety of nano-silver and we also intend to contribute to the future work of SCENIHR. Nano-silver particles have also been included in the first Community Rolling Action Plan (CoRAP)⁴ for further assessment by EU Member States within the next three years in the context of the REACH substance evaluation process.

The aim of our project was not to compile an exhaustive list of the products containing nano-silver within a specific timeframe, but rather to highlight the more and more extensive use in consumer products and to provide recommendations to both policymakers and manufacturers/retailers on how to respond to consumer expectations.

A WHOLE NEW NANO WORLD FOR CONSUMERS?

2

Many materials used in consumer products, such as metals, ceramics, polymers or composites can be manipulated to an infinite small scale. However, what makes materials at the nano-scale⁵ distinguishable is not their exceptional size *per se only*, but their different physical and chemical properties they acquire because of that size.

Silver is a strong metal and the material with the highest electrical and thermal conductivity of any known material. For these reasons it serves as a component in diverse applications ranging from electrical and electronic equipment to batteries and solar reflectors.

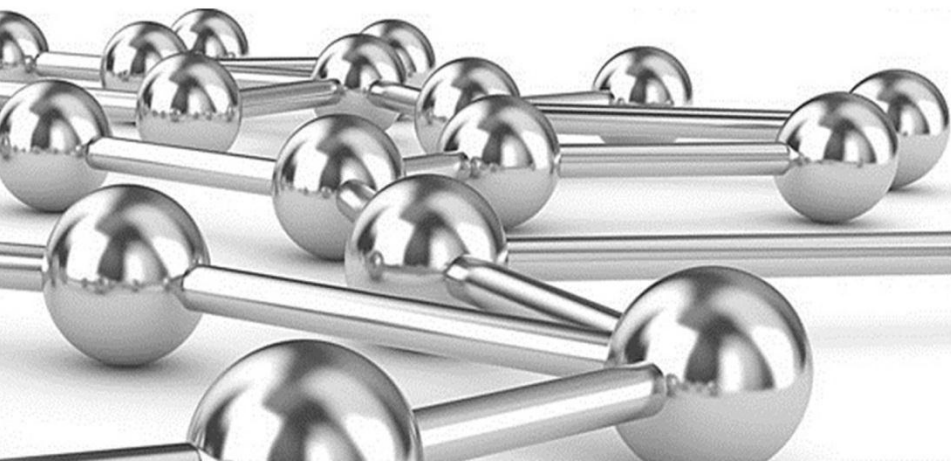
Moreover, the antimicrobial properties of silver seem to have already been known from the ancient times when Egyptians and Persians kept their water clean by storing it in silver containers and Romans and Greeks used it as a remedy to heal wounds.

As with other materials, it is possible today to break silver down to the nano-scale, where the material can exhibit unique or intensified features compared to in bulk form.

Scientific research has proven that its large surface area is responsible for this high reactivity as it intensifies the rate at which silver ions are released⁶.

While how these silver ions develop anti-microbial action is well researched⁷, the antimicrobial behaviour of nano-silver particles⁸ is not yet fully understood. Is it the size of the particles which makes them so effective or is it their capability to release silver ions?

At the same time, the industrial sector envisages a new era of nano-materials including silver for consumer products. Over the past couple of years, nano-silver has become one of the most common nano-materials claimed to be used in consumer products and has heralded the establishment of a whole new business field - from water filters and textiles to baby products and cosmetics - promising high protection against germs and odours.



NANO SILVER BULLET?

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The burst of silver-based products is accompanied by concerns associated with both their safety as well as the environmental impact. Currently there is a lack of systematic data regarding the hazard and exposure to nano-silver stemming from consumer products. It also has to be kept in mind that silver powder in the bulk form has been classified as very toxic to the aquatic life⁹.

Hazard and exposure are characterised in regulatory terms as the two components in gauging risk.

Consequently, the aforementioned knowledge gap regarding both these aspects is often used by regulators as an excuse not to put in place the urgently needed legal framework to ensure the safety of nano-materials used in consumer products throughout the whole life cycle.

When it comes to exposure it is crucial to take into account the fact that manufactured nano-materials, although initially used in a certain product, are capable of being released to the environment throughout the life-cycle of the product.

However, the research assessing the extent to which nano-particles from consumer products are capable of being released into water, soil and air is still in their infancy. One of the first experiments about the release of nano-silver socks has been undertaken in 2008 when two Arizona State University scientists analysed six pairs of anti-odour, silver impregnated socks.

After soaking them in separate jars of water for an hour, they tested the water both for silver ions and nano-silver particles. The level of release observed varied, from total discharge of the silver content to no discharge at all. This suggests that silver is capable of escaping the product, entering to the wastewater treatment¹⁰ system and consequently to the environment with possible detrimental effects on both nature as well as living organisms.

Another study from 2011 looked into human exposure to silver released from spray products. The study concluded that even the correct, intended use of the product might lead to inhalation of silver-containing aerosols and thereby direct exposure to the user.

The experiment¹¹ showed in some cases up to 70ng of silver was found in the respiratory system after a single use. Although such numbers alone provide little understanding to a non-scientific audience, they directly associate with concerns on the little assessed toxicity of silver for humans and organisms.

A recent study looked into the interference of silver nano-particles from food containers with human DNA. The findings confirmed the interference and observed an alteration of the DNA's replication mechanisms¹².

When looking at the exposure of consumers and the environment to nano-silver it also has to be taken into account that consumers already may use services unaware that the products which are used for providing this service contain nano-silver and are in contact with their body, for instance in the course of beauty treatments.

Besides in consumer products, nano-silver is also used for its antibacterial properties in public areas such as catering facilities, trains and train stations, theatres, swimming pools, saunas and sport centres.

4 PRECAUTIONARY PRINCIPLE NEEDS TO BE APPLIED

The increasing number of concerned voices calling for full assessment of nano-silver seems to have prompted scientific research looking into the potential risks. However, keeping in mind the knowledge gap and the pace with which new silver-based products become available to consumers, we must raise concerns as to their safety.

The exposure factors which have to be taken into account are so many that safe exposure scenarios, which are a precondition for reliable safety assessments, are still missing. This means that regulatory action has to be taken based on the precautionary principle to ensure consumers and the environment will not be at risk.

Furthermore, apart from the general risks associated to the widespread use of nano-materials in consumer products, a source of concern associated particularly with nano-silver is its possible relationship between absolute hygiene and the development of antimicrobial resistances¹³.

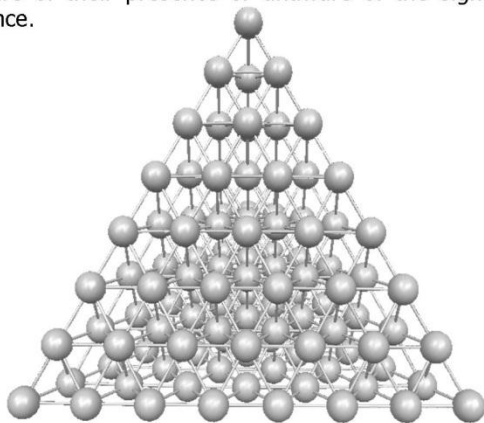
Generally, extreme hygiene tends to acquire such positive public perception that the voices warning as to its necessity are proven insufficient to offset it.

However, scientists warn that unless consumers become more aware that beneficial microorganisms get exterminated together with the harmful ones, nano-silver runs the risk of being added to the increasing list of substances which contribute to the development of antimicrobial resistance. For antibiotics it is well documented that in addition to the medical benefits, resistant pathogenic agents to these antibiotics also developed.

The prevalence of pathogenic agents with multiple resistances has been increasing at a global level. It remains to be seen if similar effects could develop due to the increased use of nano-silver.

However, it is obvious that such a development would make the treatment of illnesses more complicated. Several national environmental protection agencies and risk assessment institutes are considering the safety of nano-silver¹⁴. For example, the German Institute for Risk Assessment therefore recommends limiting the use of silver to absolutely necessary applications. In consumer products such as cosmetics, detergents and textiles, exposure should be minimized and thus no nano-silver should be used¹⁵.

In spite of these safety concerns and calls to apply the precautionary principle, the number of products claiming to contain nano-silver on the EU market is increasing, yet many consumers are either unaware of their presence or unaware of the significance of their presence.



CAN CONSUMERS BELIEVE THE SHINY CLAIMS?

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Currently it is very difficult for consumers to know which products using nanomaterials are on the market. Some products make no reference to nano-materials on their packaging – despite possibly using them – whilst others refer to the use of nano-materials in their ingredients list. Some products even claim that they have benefits because they contain nano-silver, although there is a little public information available which substantiates this claim. Undoubtedly this is a confusing situation for consumers.

Although the Unfair Commercial Practices Directive (UCPD) does not allow misleading consumers about the nature and composition of a product by giving false information, potentially misleading nano-claims are frequently observed on the market.

Little research to verify and substantiate the claims consumers commonly see on products has so far been carried out. For instance, The Netherlands National Institute for Public Health and the Environment used microscopic techniques in order to verify whether the products selected actually contained nano-materials.

The tests confirmed the aforementioned discrepancies between claims and reality and stressed the need for more accurate techniques in assessing the presence of nano-materials in products¹⁶.

Moreover, even in case the products would contain the declared nano-particles, consumers do not have reassurance if the additional declared benefits compared to conventional products hold true as manufacturers are not obliged to proof the efficacy.

As many consumer products with nano-silver claims refer to “antimicrobial properties”, this could give deceptive assurances of safety and turn out to be counterproductive if the appropriate hygiene measures are disregarded.



THE EU REGULATORY FRAMEWORK—NOT YET FIT TO DEAL WITH NEW CHALLENGES OF NANO-MATERIALS IN CONSUMER PRODUCTS

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The EU Regulatory framework has been adjudged by many stakeholders including the European Parliament to be not fit enough to deal with the new challenges related to the presence of nano-materials in consumer products¹⁷. The shortcomings are multiple.

During 2012, the European Commission is expected to present a report on the progress and actions taken to better address nano-materials.

This report should respond to the European Parliament’s Resolution of 2009 which found the legal framework insufficient to deal with nano-materials. We hope that this report will seriously consider the shortcomings outlined below and will propose concrete policy measures on how to address those gaps in the regulatory framework.

Gaps of the REACH Regulation urgently need to be closed

The REACH Regulation¹⁸ shows some serious gaps with regards to the coverage of nano-materials. While REACH covers nano-materials in theory, only three dossiers mentioned the nano-form in the registration dossiers submitted by manufacturers to the European Chemicals Agency ECHA by the 2010 deadline.

This shows that the requirements placed on manufacturers of nano-materials have to be clarified. The situation will hardly improve at the next stage of registrations (due in 2013) as in general the threshold for registration of nano-materials is far too high.

The adequateness of the current version of the REACH Regulation to provide the necessary framework for nano-materials, especially in light of the precautionary principle, has been disputed in a recent paper of the German Advisory Council for the Environment (SRU)¹⁹.

Currently, the nature of the substance is the decisive criterion under which REACH imposes obligations. Nevertheless, it is scientifically acknowledged that a substance can have differentiated and enhanced properties in the nano-scale compared to the same substance in the macro-scale.

Therefore, SRU sees a need for adding the definition of nano-materials under REACH regulation and reforming the relevant procedures accordingly. Such a reform will ensure that the existing REACH instruments, which indeed provide an appropriate context for the application of the precautionary principle for chemicals, will also be applicable to nano-scaled substances.

Under its current format, REACH does not provide the appropriate registration process, data compilation and scientific data evaluation procedures for nano-materials.

Shortcomings of the EU Recommendation for a definition of the term

The Commission Recommendation for the term "nano-material" for regulatory purposes also shows two important flaws.

While ANEC and BEUC have long called for the adoption of a common definition, we are critical of the fact that the threshold for the number of 'nano' particles needed in order for the product to qualify as a 'nano-product' has been raised from 0.15% to 50% and deviates in key points from the opinion of the scientific risk assessment committee and a previous Commission draft.

Furthermore, the upper limit of 1-100nm is too narrow and may lead to a situation in which products with bigger nano-particles could escape the definition and thereby remain unregulated.

Some stakeholders have criticised this recommended definition as a "lawyer's paradise" as it can be hardly embedded into regulatory actions, while others consider it biased for focusing too much on size rather than functions due to size, which remains at the core of the public interest on safe nano-technology²⁰.

Concerns have also arisen regarding the practicality of this Recommendation in view of other definitions of nano-materials which are custom made for specific regulatory sectors such as cosmetics and novel foods.

Many open questions regarding the relationship between the specialised definitions and the recommendation still need classification.

Sector specific legislation needs to adequately cover the challenges of nanomaterials

Several pieces of legislation which aim to ensure the safety of consumers, such as the General Product Safety Directive and the Toy Safety Directive fall short by not even mentioning nano-materials.

Thus, it is very unclear from a legal point of view how unsafe products could be withdrawn very quickly from the market should there be concerns as to the safety of nano-materials used in consumer products.

In the EU the identification of potential risks posed by hazardous chemicals in consumer products sometimes leads to specific regulation and actions such as content limit values or a ban of the use of these chemicals in particular product groups. However, this happens only on a case-by-case basis depending on political will and industry pressure.

Moreover, where such provisions are adopted in legislation, they often apply only to a small number of substances and/or product groups (e.g. products for children under three years old)²¹.

A positive development regarding the treatment of nano-materials in sectoral legislation, with particular significance for nano-silver came in January 2012 when the European Parliament adopted a new biocides regulation including risk assessment and labelling for products containing nano-materials.

Thus, biocides containing nano-silver have to be assessed, authorised and labelled prior to marketing. A simplified application procedure will not be possible for nano-materials and an authorisation in one Member State does not automatically allow marketing in all other Member States.

The Biocides Regulation will also contribute to more transparency as consumers will be entitled to ask for information about products that have been treated with biocides. Retailers have to answer to the consumer within 45 days free of charge.

Moreover, information about authorised biocides will be published in an internet database. Unfortunately the Regulation falls short to set legal requirements for the minimisation of the use of biocides²².

Traceability of nano-materials to be improved

No steps have been undertaken at EU level to date to improve the traceability of nano-materials used in consumer products.

ANEC and BEUC have been calling for the introduction of a mandatory reporting obligation for manufacturers regarding the type and quantities of nano-materials they use in consumer products.

Moreover, we have been calling to increase transparency for consumers by making information about nano containing products publicly available in a database.

RESULTS OF THE 2011/2012 MARKET RESEARCH ON NANO-SILVER CLAIMS ON CONSUMER PRODUCTS

Our market research comprises two clusters: the compilation of an inventory and correspondence with a sample of manufacturers/retailers regarding the use of silver in their products²³.

The aim of the latest 2011 BEUC/ANEC inventory is to monitor the availability of products claiming to contain nano-silver. The 2011-2012 BEUC/ANEC inventory lists examples of 109 products claiming to contain nano-silver.

The categorisation of products in the inventory represents the categories of products most commonly used by consumers in their daily lives, such as cosmetics, textiles and personal care products.

Though some of the products may belong to more than one category, each product was assigned to only one category in order to avoid counting one product twice. We cannot guarantee that these products actually contain nano-silver as no laboratory tests were performed by our organisations, but their inclusion in the inventory is based on the claims which accompany them when marketed and advertised.

Overall, the inventory should not be considered an exhaustive list of nano-silver-based products available on the EU market. It is only intended to give an overview of what consumers could find in the EU from 2009 till 2011 and the evolution within a period of two years. More specifically, the inventory is composed of silver-based products included in 2009 and 2010 general inventories on nano-materials as well as by new products added in 2011.

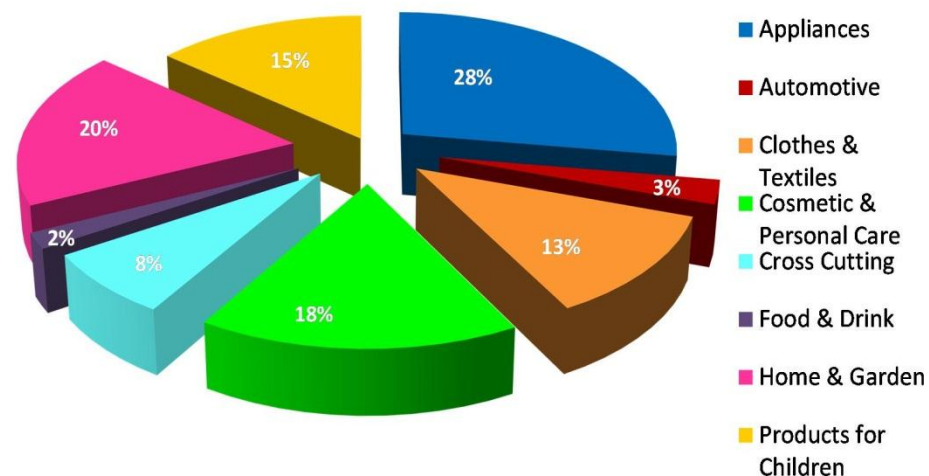
The research was carried out between October 2011 and February 2012 in shops and on the internet. Regarding products which have been found on the internet, it should be noted that as web pages are often modified or updated, the web links listed in our inventory may become unavailable in the future.

However, screenshots of the web pages have been filed by our organisations and can be communicated upon request. If products were found on non-EU websites, it has been checked that they could be shipped to the EU after order.

8 NUMBER OF NANO-SILVER PRODUCTS IN 2011/2012 BY CATEGORY

CATEGORIES	Number of products found	Percentage
Appliances	30	25%
Automotive	3	3%
Clothes & Textiles	13	11%
Cosmetics & Personal Care	18	17%
Cross Cutting	8	7%
Food & Drink	2	2%
Home & Garden	20	22%
Products for Children	15	13%
TOTAL	109	100%

Percentage per 'nano-silver' products per category in 2011/2012



THE TREND: MORE NANO-SILVER CLAIMS

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From this silver-based product inventory, we can see the following trends:

- The number of products claiming to contain nano-silver considerably increased since we compiled our first inventory in 2009. In 2009, we found 151 products for all nano related claims and in 2011/2012 we found 109 claims only related to nano-silver. Today, claims related to antimicrobial properties of nano-silver are frequently used. However, a great proportion of domestic appliances and textiles listed in the previous inventories as using nano-silver seem unavailable today.
- Some of the nano-silver claims relating to a specific product can be found when buying at online shops, while they are absent from the website of the brand itself.

This observation has already been made when compiling previous inventories and can be confirmed by our latest research. The trend that we observed in the past is continuing: it seems to be very trendy to advertise products with nano-claims. For the consumer, there is no market transparency as certain products are advertised differently depending on whether the manufacturer or retailer advertises them.

MANUFACTURERS' AND RETAILERS' RESPONSES: LITTLE USEFUL INFORMATION TO CONSUMERS

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BEUC sent 20 letters to retailers/manufacturers of the following product categories: textiles, cosmetics and baby products.

Products for babies and young children were chosen as they are at a sensitive stage of development and exposure to hazardous substances could have severe and possibly irreversible health effects.

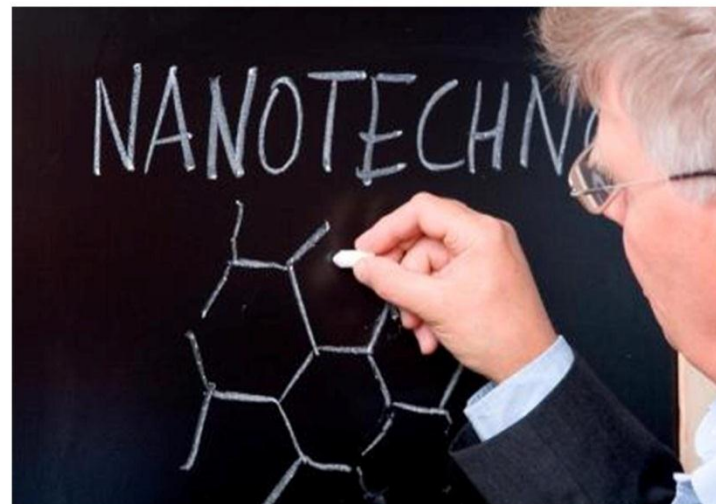
When selecting the products, we chose partly products which explicitly referred to nano-silver and partly products which claimed effects such as "antibacterial".

In our letters, we requested a substantiation of the claim which accompanied the silver-based product and more specifically:

- a) What the size range of the silver particles used in the product is.
- b) Which method was applied to assess the safety.
- c) If the claim for enhanced properties as a result of silver compared to products without this material is confirmed by dedicated testing on this specific product or if it is based on the generally assessed properties of silver?
- d) In case nano-sized particles are present in the product, how is the safety of the product guaranteed given that only little is known about the effects of nano-materials on human health and the environment?

From this correspondence we can make the following remarks:

- 75% of our requests have not been answered (15 out of 20 letters). This experience shows that two tools urgently need to be implemented in European legislation. First, manufacturers should be required to report the use of nano-materials prior to their marketing and the final consumer products should be shown in a publicly available database. Secondly, a right for the consumer to be informed about all nano-materials in products should be established, similar to the right which is currently granted on the basis of the REACH Regulation regarding information about Substances of Very High Concern (SVHC).
- From the 5 companies who replied, we found that in one case the retailer was apparently using a nano-claim without the knowledge of the manufacturer. After our investigation, we were informed by the manufacturer that the socks contained no nano-particles and the claim had been changed on the retailer's website. Also, another manufacturer informed us that they were not using nanoparticles.



- In one case, it was not clear to us who was responsible in the supply chain as we have been referred several times to suppliers, but without receiving a satisfactory answer to our initial request. This shortcoming had also been observed by BEUC in the context of a study on the consumer's 'Right to Know' enshrined in the REACH legislation and we recommend that the responsibilities in the supply chain to deal with consumer requests should be clarified.
- One company sent us a very meaningful reply and answered promptly to all our questions in a very detailed way. For example, the company indicated the precise size of the nano-particles and made available additional information on the safety testing.

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- The adaptation of existing European legislation relevant to nano-materials, especially the REACH Regulation, and the establishment or adaptation of legal requirements related to health and safety (e.g. limit values for certain nano-materials in products);

- The application of the precautionary principle in the field of nano-technologies;
- The assessment of the safety of nano-materials by independent scientific bodies before they can be used in consumer products with which consumers come in direct, close or frequent contact (including cosmetics, food and textiles) or in products which could potentially harm the environment;
- The establishment of a public inventory of products which contain nano-materials to ensure transparency of the use of nano-materials;
- The labelling of consumer products containing nano-materials in particular products with which consumers come in direct, close or frequent contact such as cosmetics, food products and clothing and baby products;
- The “consumer’s right to know” as enshrined in the REACH Regulation and the new EU Biocides Regulation to be introduced for all products which contain nano-materials or are produced by using nanotechnologies;
- The facilitation and support of research on the relation between the use of nano-silver in consumer products and the development of antimicrobial resistance;
- The revision of the EU definition for the term “nano-materials” in case the safety level proves to be inadequate to effectively protect consumers and the environment from hazardous nano-materials;
- Products in which nano-silver is used as a biocide with the aim to prevent odours and germ formation should be considered as falling into the scope of the biocide regulation and therefore require authorisation;
- Products using nano-silver should only be authorised for medical applications and only be sold in specialised shops. Using nano-silver in medical applications would require that the efficacy of the product needs to be demonstrated and exposure dates for users and the environment needs to be collected.

EXAMPLES OF PRODUCTS CONTAINED IN THE ANEC/BEUC INVENTORY ON NANO-SILVER CLAIMS

12

HOME AND GARDEN:

- Food storage boxes, chopping boards and frying pan
- Cleaning products
- Paints

PRODUCTS FOR CHILDREN:

- Baby changing mat
- Baby feeding bottle
- Blanket
- Detergent to wash children's cloth

COSMETIC AND PERSONAL CARE PRODUCTS:

- Face creams, body lotions
- Toothbrush
- Washing liquid
- Contact lenses container

CLOTHES AND TEXTILES:

- Antibacterial socks and underwear
- Bedding
- Bath towel

APPLIANCES:

- Refrigerator
- Hair cut set
- Vacuum cleaner
- Hair dryer

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20. ENDS EUROPE: "Nano definition is lawyers' paradise", says expert, 14 December 2011, <http://www.endseurope.com/27803/nano-definition-is-lawyers-paradise-says-expert?referrer=search>

21. Updated ANEC position paper "Chemicals in consumer products: The need for a European legislative framework", October 2011 (ANEC-ENV-2011-G-040),

<http://www.anec.eu/attachments/anec-env-2011-g-040.pdf>

22. For more information see: „The European Union's new Regulation on Biocides, PAN Germany, http://www.pan-germany.org/download/biocides/new_european_regulation_on_biocides.pdf

23. The first cluster, the product inventory, was jointly compiled by BEUC and ANEC. The second cluster, the correspondence with the retailers/manufacturers of the products was a separate initiative of BEUC serving as a sector specific assessment under the Unfair Commercial Practices Directive in relation to the use of nano-silver.

24. For more information please see our joint position paper: 'Small is beautiful, but is it safe?', BEUC X/043/2009, ANEC-PT-2009-Nano-002

<http://www.beuc.eu/BEUCNoFrame/Common/GetFile.asp?ID=28056&mfd=off&LogonName=Guesten>



ANEC is the European consumer voice in standardisation. This means we represent the European consumer interest in the creation of technical standards developed to support the implementation of European laws and public policies.

ANEC represents consumers from EU Member States and 3 EFTA countries (Iceland, Norway and Switzerland). ANEC has standing Working Groups on a number of priority areas: Child Safety, Design for All, Domestic Appliances, Environment, Information Society, Services and Traffic.

BEUC The European Consumers' Organisation represents 42 well respected independent consumer associations from 31 European countries (EU, EEA and applicant countries).



BEUC investigates EU decisions and developments likely to affect consumers, with a special focus on eight areas identified as priorities by our members: Safety and Sustainability; Energy ; Financial Services; Food; Health; Consumer Contracts, Digital; Environment, Consumer Redress.

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