

## Newsletter

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### Revisions to the European Water Framework Have Been Passed

By Carsten Schaffors, GBA Laboratory Group

Effective August 12<sup>th</sup>, 2013, the European Council passed the directive 2013/39/EU<sup>[1]</sup>, which contains revisions to the European Water Framework Directive. It alters, among other things, the earlier directives 2000/60/EG<sup>[2]</sup> and 2008/105/EG<sup>[3]</sup> in the field of drinking water policy with regard to contaminants. The original list of 33 priority substances, set in 2001 with the decision 2455/2001/EG<sup>[4]</sup>, was expanded to include eight additional substances in 2008. The directive can be found on the homepage of the European Union at <http://new.eur-lex.europa.eu>.

After the list was reexamined as planned and specified by the guidelines, the current directive 2013/39/EU defines new substances as priority substances and determines and/or revises the corresponding environmental quality standards (EQS). Recent developments in technology and research also played a role in these decisions. Furthermore, biota-environmental quality norms were set for some of the existing substances. Di(2-ethylhexyl)phthalate (DEHP) and trifluralin have been newly classified as priority hazardous substances. Among the newly included substances: dicofol, perfluorooctane sulfonic acid and its derivatives (PFOS), quinoxifen, dioxins and dioxin-like compounds, aclonifen, bifenoxy, cybutryne, cypermethrin and its isomers, dichlorvos, hexabromocyclododecanes (HBCDD), as well as heptachlor and heptachlor epoxide, several of these are also classified as "priority hazardous substances." These are: dicofol, perfluorooctane sulfonic acid and its derivatives (PFOS), quinoxifen, dioxins and dioxin-like compounds, as well as hexabromocyclododecanes (HBCDD).



For the moment, the revisions to the environmental quality standards are to be observed in river basin management planning during the period from 2015 to 2021. Through additional monitoring programs and preliminary

measures, the expanded environmental quality standards are to be demonstrated by the end of December 2018.

Until now, based on articles 4 through 22 of the directive 2000/60/EG, the deadline for the determination of the chemical status of surface water was December 22<sup>nd</sup> 2015 (only for the priority substances from the directive 2008/105/EG, updated 1/13/2009). For the newly included substances, the deadline for the determination of the chemical status of surface water is December 22<sup>nd</sup>, 2018.

The revised environmental quality standards for the existing priority substances should be observed by the end of 2021. For the newly designated priority substances, these goals should be reached by 2027. With these measures, "good surface water chemical status" should be achieved.

The EQS named in this document generally apply to an annual average value. Especially in the newly included substances, these are set at such low levels in the water that they cannot be achieved under the normal routine laboratory conditions at the current state of technology, or are considerably above ubiquitous distribution. Biota environmental quality standards are then referred to. The altered formulation in article 3, paragraph 3 of the directive 2008/105/EG is somewhat unspecific, stating that if the analytical methods do not meet the minimum performance criteria (concerning measurement uncertainty and limits of quantification) then the monitoring must be "carried out using best available techniques not entailing excessive costs" and that the method must perform "at least as well as that available" for the analysis of the biota matrix. (Also see article 4 of the directive 2009/90/EG from July 31st 2009.)<sup>[5]</sup>

Currently, implementation is difficult, since other assessment concepts are also applicable (such as the insignificance thresholds defined by the German Working Group on Water Issues, "LAWA")<sup>[6]</sup> For example, the Bavarian State Environmental Agency (LfU) derives a limit value of 0.23 µg/L for perfluorooctane sulfonic acid (PFOS) in order to accommodate the German Water Management Act (WHG)<sup>[7]</sup>. In contrast, the EQS for PFOS in surface water, at 0.00065 µg/L, is several orders of magnitude lower.

In the near future, a large amount of coordination will be still required in order to bring the demands of the economy, European law, technology, and national licensing authorities down to one common denominator.

In addition to the analytical methods described here in the context of these directives, which all meet the currently valid minimum performance criteria, but which we also continuously develop in order to stay at the state of the art of technology, the GBA Laboratory Group always strives to keep you up to date, even on complex issues such as legal alterations.

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#### Literature:

- [1] DIRECTIVE 2013/39/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 August 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy, Official Journal of the European Union, L 226/1 ff., 24.08.2013.
- [2] DIRECTIVE 2000/60/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2000 establishing a framework for Community action in the field of water policy, Official Journal of the European Union, L 327/1 ff., 22.12.2000
- [3] DIRECTIVE 2008/105/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council, Official Journal of the European Union, L 348/84 ff., 24.12.2008
- [4] DECISION No 2455/2001/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2001 establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC, Official Journal of the European Union, L 331/1 ff., 15.12.2001
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- [6] Länderarbeitsgemeinschaft Wasser (LAWA), Ableitung von Geringfügigkeitsschwellenwerten für das Grundwasser, (Derivation of insignificance thresholds for ground water), December 2004
- [7] Bayerisches Landesamt für Umwelt (Bavarian State Environmental Agency), Leitlinien zur vorläufigen Bewertung von PFC-Verunreinigungen in Wasser und Boden, (Guidelines for the preliminary assessment of PFC contamination in water and soil), Updated: March 2013

## The Pesticide "Fipronil" is Not Allowed for Use in Potatoes

In the upcoming year, the pesticide "Goldor Bait", which contains the active agent Fipronil, will no longer be approved by the German Federal Office of Consumer Protection and Food Safety (BVL) for use in potato farming. According to the BVL, two recent applications to approve its usage were rejected in November in order to protect the population of bees and other pollinators.<sup>[1]</sup>

"Goldor Bait" is used as an insecticide when growing potatoes and other products in order to protect their tubers from wireworms (larvae from a variety of beetles in the *Elateridae* family). These worms create tunnels in the potatoes that are several centimeters long in order to get to water in otherwise dry soil. These "damaged" potatoes are then no longer suitable to be sold for consumption, grafting, or planting.<sup>[2]</sup>

Between 2009 and 2013, the use of "Goldor Bait" was temporarily permitted. The granules are strewn into the furrows during planting and covered with soil. They attract the larvae and kill them upon contact or consumption.<sup>[2]</sup>



Wireworm: Larva stage of a variety of beetles (*Elateridae* family)

In the Commission Implementing Regulation (EU) No. 781/2013 from August 14<sup>th</sup>, 2013, the European Food Safety Authority (EFSA) stipulated that the pesticides containing fipronil may only be approved for the treatment of seeds that are designated for usage in greenhouses. Seeds that are cultivated outdoors but harvested before blossoming are excepted from the limitations on approval. That could include, for example, leeks, onions, scallions, and cabbage.<sup>[3]</sup>

The refusal to permit the use of pesticides containing fipronil in potato farming occurred in the context of EU plans to reduce the residual amounts of fipronil in potatoes from 0.01 mg/kg to 0.005 mg/kg. That would already affect potatoes grown in 2014, which then presumably would not be able to comply with these new limit values. It would then no longer be possible to sell such products as table potatoes.<sup>[1]</sup>

At the GBA Laboratory Group, the use of pesticides and the regulation thereof are a subject that is continuously monitored due to the wide variety of active agents and substances. Since the regulations require proof within a diverse range of matrices with ever decreasing limits of quantification, comprehensive knowledge of the topic is necessary. If you have any questions about fipronil or other pesticides, then we will gladly help you.

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- [1] Fachmeldung des Bundesamtes für Verbraucherschutz und Lebensmittelsicherheit (BVL): „Keine Genehmigung zur Anwendung des Pflanzenschutzmittels „Goldor Bait“ in Kartoffeln für das Jahr 2014“ (No Permit for the Use of the Pesticide „Goldor Bait“ in Potatoes for the Year 2014), November 29<sup>th</sup>, 2013

<sup>[2]</sup> Industrieverband Agrar, (Industrial Association for Agriculture) „Drahtwürmer in Kartoffeln sind schwer zu bekämpfen“ (Wireworms in potatoes are hard to combat), June 26<sup>th</sup>, 2012

<sup>[3]</sup> COMMISSION IMPLEMENTING REGULATION (EU) No 781/2013 of 14 August 2013 amending Implementing Regulation (EU) No 540/2011, as regards the conditions of approval of the active substance fipronil, and prohibiting the use and sale of seeds treated with plant protection products containing this active substance, Official Journal of the European Union, L 219/22, 15.08.2013

## The GBA Laboratory Group Makes Children's Dreams Come True

For Christmas, the GBA Laboratory Group has come up with something special this year: "After a successful business year, we would like to share our joy with those who are not doing so well," said Manfred Giesecke, CEO of the GBA Laboratory Group. Therefore, in the name of our suppliers and clients, we want to donate a sum of € 5,000 to a charitable foundation.

The organization "Aktion Kindertraum" (The Children's Dreams Initiative) has been selected. It was founded in Hanover 10 years ago and fulfills the dearest wishes of children who are either seriously ill, handicapped, or socially disadvantaged. "It is a great desire of ours to support this project with our donation," continued Manfred Giesecke, "especially at Christmas time, in order to cause a twinkle in the eyes of children who have seen a lot of suffering."



One of the ways our gift was put into effect was to help a girl from Saxony suffering from diabetes who, because of her illness, wished for a "hypo-dog," a warning dog trained to help diabetics. Now the child and her dog can complete the training together.

Furthermore, there is a girl in Hamburg suffering from severe dyscalculia. With our donation it is now possible for her to afford a special therapy to combat her "innumeracy."

These are only two small examples of how one can utilize Christmas gifts in a meaningful way. We would greatly appreciate it if you would also visit the website for "Aktion Kindertraum" at the following address: [www.aktion-kindertraum.de](http://www.aktion-kindertraum.de).

In the hope that we have thus also acted in your best interests, we wish all of you happy holidays.

## As For Ourselves: A Look Back at the Year 2013

The GBA Laboratory Group, with its 448 employees, can look back at a successful year of business in 2013. The

increased amount of employees is due to the expansion of the pharmaceutical business unit. With the acquisition of Phytos Labor für Analytik von Arzneimitteln GmbH & Co. KG on September 1<sup>st</sup>, 2013, a substantial milestone was reached and the entire lab space of the GBA Laboratory Group was expanded to 14,000 m<sup>2</sup>.

There were several changes in northern Germany as well. Both at the headquarters in Hamburg as well as at the Pinneberg location, there have been expansions. The new offices on Goldtschmidtstrasse in Hamburg are already partially in use, and the final move will take place in February 2014, whereas the new facilities in Pinneberg will be completed in May 2014.

With more space, there is now room for something new! A cutting-edge device has arrived at our site for environmental analysis in Pinneberg. A fully automated sample preparation robot, as the name implies, prepares the samples on its own. This leads to a noticeably higher reproducibility of results and improved speed, which is especially important from the customer's point of view.

GBA is always developing further. In addition to the numerous technical developments and analytical methods in the fields of environmental, food, pharmaceutical, and consumer goods analysis, new departments have also been formed within the company that will help us maximize our full potential. Thus we would like to present the Research & Development department as well as Marketing & Communications.

GBA stands for competence. This is characterized by our long-term experience and specialized technical knowledge. In this year alone, 46 employees at the different locations celebrated their 10<sup>th</sup>, 15<sup>th</sup>, 20<sup>th</sup>, or even 25<sup>th</sup> anniversary at the company.

In 2013, GBA demonstrated a strong presence at a variety of trade fairs, such as the "Fruit Logistica" and the "Wasser Berlin" events. Customers there had the opportunity to inform themselves about GBA extensively and to get to know the experts on each particular topic in person.

In 2014, GBA will once again take part in selected trade fairs and symposia, for example the Food Safety Congress in Berlin (March 11<sup>th</sup>-12<sup>th</sup>, 2014), the Altlastensymposium (Inherited Waste Symposium) in Fulda (March 20<sup>th</sup>-21<sup>st</sup>, 2014), and the COTECA in Hamburg (Sept 24<sup>th</sup>-26<sup>th</sup>, 2014).

Furthermore, GBA will be an exhibitor at CPHI, the worldwide leading pharmaceutical convention, which will take place October 7<sup>th</sup>-9<sup>th</sup>, 2014 in Paris.

Internationality is a major point of emphasis at GBA. Because of our many European customers and the increasing demand from customers abroad, a joint venture was founded at the end of this year that will solidify the international activities of the laboratory group.

This year, GBA has once again dedicated itself to serving the community by getting involved in social projects. That again included supporting several regional youth sports

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activities with our sponsoring, as well as the Christmas donation to "Aktion Kindertraum" in Hanover.

As for ourselves, we are looking forward to the year 2014 with great expectations, because there is something to celebrate: in 2014, GBA Gesellschaft fuer Bioanalytik mbH will celebrate its 25<sup>th</sup> anniversary! Of course, we will

keep you informed about the upcoming events for the company anniversary.

We would like to thank all of our customers and business partners for the great cooperation in 2013 and wish you and your families good health for the year 2014.

Inquiries or orders can be placed directly with our headquarters in Hamburg or any of our other sites:

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