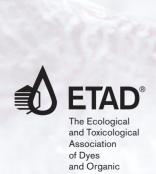
ANNUAL REVIEW 2015



Pigments Manufacturers Working Together for Safer Colorants



Mission statement



The purposes of the association are the following:

To coordinate and unify the efforts of manufacturers of synthetic organic colorants to minimize possible impacts of these products on health and the environment.

To achieve these ends by the most economic means without reducing the level of protection of health and the environment.

To encourage harmonization of health and environmental regulations in key geographical areas.

To represent the positions and interests of the manufacturers of organic colorants towards authorities, public institutions and media.

To promote responsible environmental and health risk management during manufacture, transport, use and disposal.

To enhance the recognition of the commitment of ETAD members to responsible behavior with respect to health and the environment.

Preface from the President



Dear friends of ETAD, Ladies and Gentlemen,

As President of ETAD, I am pleased to welcome you.

25 years ago ETAD, as an association of the leading colorants manufacturers, committed itself to a Code of Ethics: ETAD intends to take a leading position in the safe and sustainable production of organic pigments and dyes. The minimization of the possible influences on environment and health during the production of synthetic dyes and pigments is the key step of the process, accompanied by the scientific-based support and influence on legislation and RSLs as well as by collaboration with different parties. At the same time the economic conditions for the industry should not be forgotten.

ETAD will continue to extend and develop this leadership because only by monitoring the technology of pigments and dyes production can we set and achieve the appropriate standards. As we all know, the chemistry of organic colorants is very complex and, as the "ETAD-family", we have to ensure that all our members are enabled to take these opportunities.

Currently, non-governmental organisations and private companies keep setting new standards. Even legislators in many countries around the world are establishing new restrictions and limit values. For many of our customers it is not possible to have an overview of all these standards and regulations. This is why ETAD is important as an agent and partner of the industry which is processing the dyes and pigments.

It is also mandatory for ETAD's role to grow. We have the duty to be more proactive in order to expand the technological leadership, which our member companies certainly have, and to set standards ourselves. Because we know what we do!

Through active association work and the active recruitment of new members ETAD has gained the opportunity to make a valuable contribution to the conservation of resources and the prevention of environmental risks worldwide. New member companies are systematically controlled and must comply with the ETAD guidelines. Our working groups in the field of organic pigments and dyes provide valuable information to the new and old member companies regarding achievement of standards and improvement of working conditions.

Controlling and maintaining ETAD's guidelines has to be our common goal. Our global cooperation provides ETAD with the opportunity to connect and use a network of internationally recognized companies. We have already developed a large knowledge advantage and we have to use this value for the benefit of ETAD and its member companies.

Dear friends of ETAD, the beginning of my work should not only be taking charge of the presidency, but also a challenge to all of you to use and to promote ETAD as an active instrument of corporate governance.

We see our opportunities and possibilities and work towards establishing ETAD as an accepted and worldwide respected reference for the industry standard.

We are the "safe and responsible chemistry" in the field of pigments and dyes.

This is already demonstrated by a lot of requests from NGOs and governmental bodies, which are conducted in an exemplary manner by our office in Basel under the direction of Dr. Walther Hofherr. This is the place and time to say to Walther and his staff "THANK YOU!".

I am looking forward to a good cooperation with all of you.

Yours,

Detlef Fischer

From the Executive Director



Dr. Walther Hofherr

One of ETAD's focal points in 2015 has been the discussion of the re-auditing of member companies. A first step was the introduction of the periodical self-declaration questionnaires companies have to fill in every 5 years; should any inconsistencies occur in the information given, an on-site audit will be required. Additionally, to further enhance the value of the ETAD mark in the colorant industry and its value chain, first discussions in the Dyes Operating Committee have started about transferring heavy metals and organic impurities limits in the Code of Ethics. Once these values would be integrated into the CoE it will be mandatory for the companies to comply with them. Otherwise companies will no longer be accepted as ETAD members. As part of the project we also started a good cooperation with bluesign, which is now our contractor for auditing new ETAD members.

Further I am very happy to report that our analytical expert team, chaired by Edith Wieser, has successfully upgraded and validated ETAD method 212 for determining PAAs in organic pigments.

As regards our external activities, our contacts in China, especially concerning the communication between ETAD and China Dyestuff Industry Association (CDIA), are now well-established thanks to the help of our senior consultant Gecheng Xie. A specific project we are following is the development of the GB standard "Release limits for waste water, emission and solid waste from special industry" ("special industry" refers in this context to dyes and pigment plants): in case CDIA would obtain the lead from the Chinese authorities, ETAD will get involved in the process.

Looking to the west, over the pond the communication with CPMA, thanks to its new Executive Director, David Wawer, has developed to an excellent level with complete sharing of information of mutual interest. Our two associations are currently collaborating closely in the US on the important issue of PCBs as environmental pollutants, a debate which is of crucial importance for the pigment industry.

On a more personal note, I was really sad that I could not participate at last year's General Assembly in Goa, India due to severe health problems. Here I would like to thank once more Pierfrancesco who had to take our usually shared burden on his own shoulders; of course I also have to thank Ravi and his team for their splendid support to make the GA in Goa a success.

However, I still had the opportunity to catch up on India: At the beginning of December 2015 I was invited to give a presentation on ETAD's objectives and projects at the 4th Industrial Green Chemistry World Convention in Mumbai, which gave me also the opportunity to discuss with Ravi activities the Indian Operating committee should consider in 2016.

During the General Assembly 2015 we also had important changes in the ETAD Board and, in particular, Detlef Fischer, CEO of BEZEMA, was elected as new president of ETAD. I am looking forward to working together with him and bring ETAD in a forerunner role concerning HSE standards in the colorant industry.

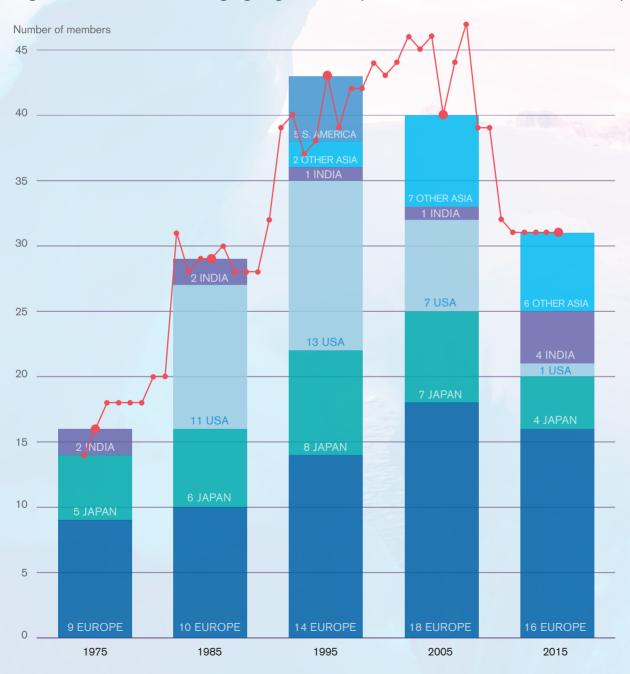
Changes in ETAD's secretariat staff have to be mentioned here also. Bertil Hanke left ETAD in September 2015, and we hired as new project manager Heidi, who has a master degree in environmental sciences. She started at the end of September 2015 and we wish her success and satisfaction in her new position at ETAD.

Finally, let's not forget that our Annual Review lives on the many reports prepared by our chairmen of the various committees. So my thanks go to Detlev (RAC), Mark (DOC), Klaus (POC), Osamu-san (JOC) and to Tucker (ETAD NA) and Ravi (IOC). Their reports summarize all the contributions of the experts in these committees to ETAD's success in 2015. ETAD's efforts and the dedication of its members and their affiliates are decisive to ensure that the colorant manufacturing industry maintains its reputation as a responsible, ethical, and safety-conscious industry.

Membership

The company Chroma Chemical Corporation (Taiwan) joined ETAD in July 2015. Brenntag Colours Ltd. (UK) left effective from January 2015.

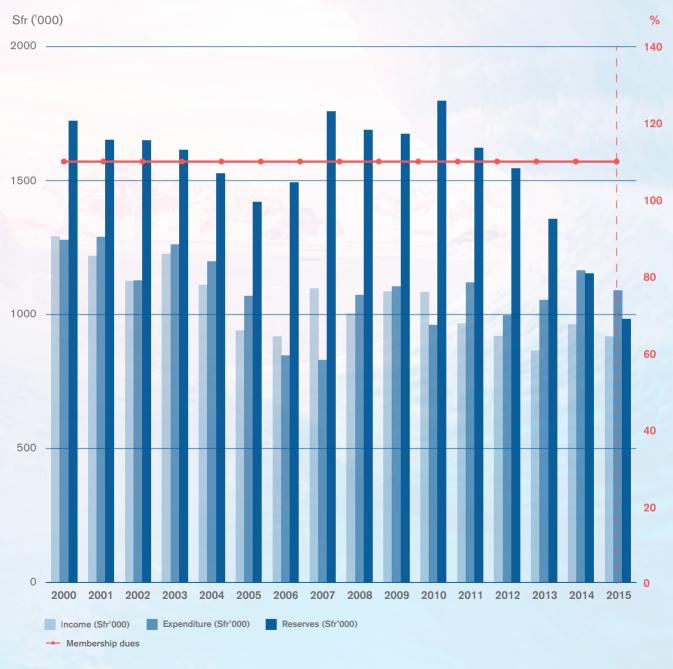
Fig. 1 – Growth and changing regional composition of the ETAD membership



Finance

ETAD is a non-profit association. The operating expenses are recovered mainly by means of payments by the ETAD members. In 2015, total income was SFr. 913'000 compared with total expenditure of SFr. 1'089'000, resulting in a loss of SFr. 177'000.

Fig. 2 - Summary of income / expenditure 2000 - 2015



41st General Assembly and joint meeting



The 41st Ordinary General Assembly of ETAD was held in the Vivanta by Taj Hotel in Goa on May 29th, 2015.

The President, Mr. Ravi Kapoor, welcomed the attendees and, in his opening remarks, reminded the participants of the need of a tight collaboration between the East and the West of the colorant industry, in particular as regards ETAD's main goal of improving safety and minimizing the environmental and health impact of colorants. ETAD can work as a bridge to achieve this goal, which has already been started through the ESC.

Additionally, Mr. Kapoor mentioned the Indian "mentoring", i.e. companies wanting to improve their manufacturing "greenness" have the opportunity to receive corresponding advice by other companies with more experience on the subject.

Out of the ETAD membership of 30 companies at the time of the General Assembly, 21 were present or represented by proxy; of the total vote entitlement of 80 votes, 69 votes were represented at the meeting (86%).

The participants approved unanimously the minutes of the 40th Ordinary General Assembly 2014 as well as the Annual Report 2014.

The Treasurer Dr. Jahn presented the financial report for 2014, which had been sent in due advance to all member companies. In 2014, total income had been SFr. 960'000 compared with total expenditure of SFr. 1'127'000, resulting in a loss of SFr. 167'000. This financial report was approved unanimously. Dr. Jahn remarked how ETAD was able to reduce the foreseen loss, among other things thanks to the new fee payment procedure introduced last year.

It is expected that this positive trend will continue during 2015. It is now an important goal to bring the finances to a break-even point in the coming years.

The Board proposal for the Budget 2015, also presented by Dr. Jahn, and the appointment of PriceWaterhouseCoopers AG as auditors for the 2015 accounts were approved unanimously by the General Assembly.

Mr. Kapoor presented to the Assembly the specific goals, on which ETAD will particularly focus its attention in 2015. The active recruitment of potential new members in Eastern countries would be continued, and collaboration with authorities as well as retailers would remain a relevant part of ETAD's activities, due to the ongoing changes in regulatory and voluntary restrictions affecting colorants. The revision of the ETAD Guidance would be completed, as well as the inhalation experiments with pigments, which will provide key information for ETAD's advocacy for the safety on pigments as potential nanomaterials.

Mr. Kapoor then invited Mr. Fisher to address the Assembly as new President. In his comments, Mr. Fischer thanked the members for the opportunity to take this position on the Board and remarked on the importance for an association as ETAD to be fast in its reaction to any issue affecting the colorant industry.

It is crucial for ETAD to be involved as far as possible in all the discussions where the association's know-how might drive to scientific-based, reasonable solutions. Additionally, the constant work of ETAD as promoter of sustainable practices should also be better underlined, in order to increase the association reputation and visibility.

The Board proposal for its composition for 2015/2016 was presented to the Assembly. There were no additional nominations in response to the invitation by ETAD Legal Counsel, Dr. Uebersax. The Board was elected unanimously as follows:

Mr. Detlef Fischer
Dr. Reiner Jahn
Mr. Georg Roentgen

Mr. Georg Roentgen
Dr. Clemens Grund
Mr. Ravi Kapoor

Mr. Peter Krummeck
Dr. Mehmet Emre Şener

Dr. Yoshitaka Koshiro Dr. Rüdiger Walz BEZEMA AG BASF Schweiz AG

Huntsman Textile Effects GmbH DyStar Colours Distribution GmbH

Heubach Colour Pvt. Ltd. Sun Chemical A/S Setas Kimya Sanayi A.S.

Dainichiseika Color & Chemicals Mfg. Clariant Produkte (Deutschland) GmbH President Vice president Treasurer



Joint meeting of ETAD Board, DOC and POC members

The ETAD joint meeting makes it possible for the different committee members and the Board to gain a deeper insight into each other's activities and discuss topics of common interest.

Prior to the joint meeting Board members take part in the morning sessions of the specific committee meetings and have a first-hand experience of the committees' work and approach to colorant issues. Additionally, they can directly provide their comments to the committee members on crucial topics which strongly affect the colorant manufacturing industry.

The joint meeting focused on three main items:

- Membership fees update
- Implementation of "Vision 2020"
- Feedback from Board members on their visit at the morning committee meetings

Membership fees update

Dr. Jahn reported to the companies' representatives that the status of ETAD's finances in recent years had brought about in the Board the discussion about a possible increase of ETAD's membership fees. The fees have not been changed in the last 23 years, and changes in ETAD membership lowered the association budget considerably, even without any substantial change in the expenses. This caused a constant erosion of ETAD's reserves in order to buffer the loss. On the other hand, the ETAD office has been able to constantly reduce the foreseen yearly losses.

Considering the above described status, and taking into account also the recent appreciation of the Swiss Franc, the Board decided to wait for one year and see how the new exchange will affect the ETAD finances. The member companies were informed that, depending on the financial results for 2015, the fees increase might be proposed for 2016.

Implementation of "Vision 2020"

The ETAD activities in the ZDHC group initiated last year the discussion on the update of ETAD limits for residual metals and organic impurities stemming from synthesis of dyes. Especially for azo dyes potentially cleaving to carcinogenic aromatic amines ETAD members have to comply with the Code of Ethics limit of 0.1% (1000 ppm) for amines in such dyes, whereas the limit agreed upon in the MRSL from the ZDHC is 200 ppm.

Taking into consideration the feedback received by the committees, the Board started the ongoing project of having all impurities of the ETAD recommendation list plus the lowered amines limit to become part of the Code of Ethics by 2020.

Feedback from Board members on their visit at the morning committee meetings

R. Kapoor summarized in his feedback a general Board remark: it is evident that ETAD and its committees are confronted constantly with new topics and issues which have to be assessed and, very often, need an appropriate action from the association. The key word here is speed: all actions have to be organized and carried on as quickly as possible, particularly when a late intervention would cause inaccurate or wrong information to be spread; ETAD has already experienced the difficulty of correcting existing information that is wrong as opposed to help creating correct information in the first place. Mr. Kapoor also invited all companies to add their momentum to this important aspect of ETAD's actions.

From the POC, K. Kund underlined the prominence, once more, of the nano debate in the POC discussion. Even though many successful actions and, most recently, the inhalation project confirmed ETAD's message that organic pigments are safe materials independently of their nano status, still not all stakeholders are convinced. The communication with all the partners in regulatory bodies and in the value chain must continue in order to avoid that an unnecessarily precautionary approach is applied to pigments.

M. Dohmen, as chairman of the DOC, reported in particular about the activities with different national authorities and the ongoing work in the ZDHC group. He remarked how the presence of Indian companies in the DOC meeting helped collect additional input to the common issues of dyes manufacturers; this is extremely important in cases of topics, as for example the UNIDO project on "greener dyes manufacturing", which are of general impact and better discussed by the entire international ETAD membership.

Dyes Operating Committee (DOC)

As in previous years, also in 2015 REACH played a pivotal role in the DOC activity. With the next registration deadline for the smallest tonnage band coming up in 2018 the impact on the affected products will be much larger, since the registration costs will have to be covered by much smaller sales. For that reason, the benefit of improved exchange on best practice between ETAD member companies is becoming more and more important. REACH also has effects on other dyes-specific issues, and is the inspiration for similar systems worldwide, which in turn affect multinational member companies.

CMRs in articles

Article 68(2) of REACH provides a simplified procedure which the Commission may use in relation to substances classified as carcinogenic, mutagenic or toxic for reproduction (CMR), categories 1A and 1B on their own, in mixtures or in articles that could be used by consumers.

In November 2014 the European Commission decided to start working on a restriction for CMRs in consumer articles under Art. 68(2) using the "category of articles" approach. Textile and clothing articles were already selected as a first test case. In addition to the characteristic that they come into contact with the skin, it was remarked that there is currently no comprehensive product specific legislation for these articles. The Commission, with the support of ECHA, started collecting information on classified substances that can be present in textile and clothing articles, including their possible maximum concentration limits. A public consultation was launched in the first half of 2015, and the DOC provided ETAD with updated information on dyes-related entries in the distributed lists of substances classified as CMR 1A and 1B.

Non-regulated amines

Following the publication of the article "Identification of non-regulated aromatic amines of toxicological concern which can be cleaved from azo dyes used in clothing textiles" ETAD and TEGEWA met and agreed on a series of actions to clarify the actual knowledge on such "non-regulated amines" and to assess the effective risk for the consumer. A prioritization plan was started, with the aim to summarize the actual knowledge on such "non-regulated amines" and to identify a restricted number of relevant candidates which still lack basic information on their CMR status. This assessment was performed by ETAD on the basis of the latest REACH/harmonized CLP status, as well as considering other information sources (PubMed and similar databases). As a final check on the effective importance of the amine the DOC provided its feedback on the actual presence of possibly affected dyes on the market.

Keml project on aniline in toys textiles

In 2015 the consultant Stefan Posner, working for the Swedish Chemical Agency (Keml), contacted ETAD in regard to a current review on aniline, intended to be used by the Swedish Chemicals Inspectorate to drive sharper European legislation on toys.

The review aimed to include a description of the use and presence of aniline particularly in textiles (including leather, if possible), to understand how common this issue is and to evaluate the approximate concentration in the toys. Derivatives of aniline of similar concern were also in the general scope. The DOC provided to Keml updated information on dyes which might be relevant for the issue, and received in October the information that Keml had postponed the discussion, because the analytical results of a small marked survey performed by the Swedish authorities showed barely any levels of aniline at all. ETAD will be updated about any new development.

Collaboration with UNIDO

After the "Informal stakeholders meeting on responsible management of the supply chain in the garment sector", held in Brussels in January 2015, ETAD was contacted by Mr. Schönberger, a consultant of the United Nations Industrial Development Organization (UNIDO) in regard to a possible new project, focussed on the production of sulphonated naphthalene derivatives and starting with the use of H-acid in the production of dyes. The consultant asked ETAD whether its companies would like to support this project, in particular by providing expertise on the environmentally responsible production/use of the H-acid. First feedback from the member companies clarified that most of them outsourced H-acid, and very few of them still produced it. On the other hand, as discussed during the DOC, companies feel that a better control on the "greenness" of the intermediates is part of ETAD's goal to safer colorants. Therefore it was decided to communicate to Mr. Schönberger general support to his initiative and willingness to be involved in further dyes-relevant projects.

Extractable cobalt in complex dyes

The development of a reliable determination method for extractable cobalt is one of the REACH-related issues. This project was undertaken in light of the lack of an analytical methodology to support REACH compliance with the restrictions on Co(II). Cobalt salts which have been added to the SVHC list are used as starting material in the synthesis of metal complex dyes. The finalization of the method and its internal validation are under way.

7DHC

DOC supported ETAD's role in the Technical Advisory Committee (TAC) under the ZDHC initiative, with a special focus once again on reducing the workload on member companies by strongly advocating the "smart testing" principle. Testing is reduced to the actually possible contaminants without leaving any risk of undetected dangerous substances. This activity underlines the reputation of ETAD and its member companies

as a source of support for the brands to achieve more ecologically and toxicologically safe production. DOC was also able to provide its feedback on the effect of the ZDHC activites at the dyes manufacturers' level, which will help to shape future actions of the group.

Emerging regulations

Based on the RAC input, the DOC tries to clarify the most practical aspects of emerging regulations worldwide, particularly in cases where complex registration procedures are expected. Among the different active jurisdictions, the most followed in 2015 were Turkey, Taiwan and Korea, where REACH-like and/or GHS-like systems are currently being implemented. For ETAD companies is guite important to understand differences from the European legislation as well as to be updated on changes in requirements and deadlines for not yet finalized regulations. This update relies on the direct contacts of DOC members in the specific countries and helps to minimize the additional workload.

Pigments Operating Committee (POC)



In 2015, the most important topics of the POC were the use of pigments in sensitive applications (including corresponding test methods for regulatory purposes), organic pigments as nano materials, and activities related to planned regulatory changes. As regards the debate on nano materials, four major topics potentially impacting organic pigments were ETAD's focus in 2015: the potential adaptation of the REACH annexes, the review of the nanomaterial definition, the development of measurement methods to apply the definition, and the implementation of national nano product registers.

Sensitive applications

Sensitive applications are characterized by request of specific pigment profiles which fit into the desired performance of the final products (e.g. food contact, toys, cosmetics). Specific topics for 2015 were:

· Safety of toys

Despite the toy safety standard in force, ETAD continued to follow still ongoing developments to help improve some remaining deficiencies like the test method for chromium. Additionally, results of current projects could be of general impact for all chemical manufacturers and will need to be communicated and discussed immediately (e.g., a specific study aimed to re-evaluate the chewing behaviour of children as regards toys).

· Food contact legislation

The German Printing Ink Ordinance still exists as draft only. The 6th draft was withdrawn again soon after its publication on the BfR homepage in January 2015, in favor of a corresponding potential European regulation. However, POC members had noticed that, within the draft document, two organic pigments had been de-listed from the annexes of allowed colorants due to "carcinogenic effects". Several endeavors have been made by ETAD to clarify the basis for the mentioned de-listing. These activities are still ongoing.

In a similar way, the Swiss authorities informed about a planned amendment in which, beside other changes, the same two organic pigments mentioned in the 6th draft of the German Printing Ink Ordinance should be de-listed as well from the annexes of the Swiss Ordinance. A meeting between ETAD, EuPIA and the Swiss BLV was organized to discuss the issue, and one of the two cases could be clarified. The discussion on the second case is ongoing, with available data currently being evaluated.

As regards pigments plastic applications, the revision of BfR recommendation IX (Colorants for Plastics and other Polymers Used in Commodities) continued to be followed by the POC. The Recommendation is a widely referenced document for use of colorants in plastics and in similar applications, due to the presence of a precise colorant definition and the fact that it is one of very few regulatory documents for pigments. Both for manufacturers and downstream users the document is an efficient communication tool, When BfR communicated in 2014 the possibility of withdrawing the Recommendation, ETAD together with VdMI and VdL convinced the authorities of its importance. The revision process was started, during which ETAD also provided its input, based on the POC members' comments, on possible ways to update the document accordingly to

the current status of knowledge on organic pigments.

Standardisation

In 2013 ETAD started its activities in the ISO technical committee TC 256 (Pigments, dyestuffs and extenders), participating in working groups 1 (Terminology), working group 2 (Nanotechnological properties of pigments and extenders) and working group 7 (Functional pigments and extenders) and working group 3 (General test methods for colorants and extenders).

As part of its goal to help develop general and reliable references for organic colorants, in 2015 ETAD proposed in group 3 the assessment method for PCBs in pigments (ETAD method 229) as a new work item. The proposal was accepted and is now going through the evaluation steps necessary for its final acceptance as an ISO method.

Nano

Nano continued to be one of the central topics of 2015. Easy and readily available measurement methods to prove that a powdered material is not a nanomaterial are still missing; however, available data suggest that most of the pigments should be considered as nanomaterial. ETAD continued to base its general approach on this assumption.



A first corresponding ETAD activity with a strong involvement of POC members was the inhalation project. The project, started in 2014 to further enhance the toxicological data set and to prove that pigments are safe independently from their particle size, is progressing. The expected lack of nanospecific toxicity has been confirmed by all results the ongoing studies provided to date.

Additionally, the POC evaluated the first effects of the national nano product registration required in Denmark and Belgium: Due to scope and exemptions very limited impact on organic pigments can be seen in Denmark, whereas the overall impact of the situation in Belgium has still to be fully assessed.

As regards the regulatory developments, after harmonising discussions between DG Enterprise and DG Environment the further process regarding the adaptations of REACH annexes related to nanomaterials is progressing only slowly. The long awaited third and final report of JRC, evaluating options to clarify the nanomaterial definition and to facilitate its implementation, was published. A common position considering the specific impact of the proposed amendments on organic pigments was developed together with Eurocolour.

Not having a final definition for nanomaterials a new discussion on nanoforms of a substance also entered the floor within the development of REACH guidance by ECHA.

On all these regulatory levels, involvement in the communication with authorities (EU Commission, Member State Competent Authorities, ECHA) and NGOs as well as a close industry cooperation including downstream users (e.g. EFfCI) continued to be an important lobbying activity for ETAD related to pigments as nanomaterials.

The POC provided the necessary input on the actual implications for the organic pigments industry of any proposed change.

PCBs

In the US, a discussion on PCBs in organic pigments is ongoing following the publication, in recent years, of a series of articles which claim organic pigments (and dyes) are a relevant source of PCBs as environmental pollutants. Although the issue has been followed closely mainly by CPMA, the association has maintained a steady communication with ETAD about the progress of the debate. An important point in the two associations' strategy is to prepare scientifically based information to clarify the actual contribution of colorants in this pollution. ETAD and POC members in particular are therefore very important for the future of this issue as providers of updated, actual data on the properties of pigments currently on the market.

Proposed German re-classification of diarylide pigments

The German commission for the evaluation of substances hazardous for the aquatic environment (Kommission zur Bewertung

wassergefährdender Stoffe, or KBwS in short) issued end of 2014 a proposal for the classification of some diarylide pigments in the higher water hazard class, the Wassergefährdungsklasse 3 (WGK 3). The pigments had already been classified as environmental unproblematic in the OECD program and in REACH. However, the authorities explained that the proposal was based only on the presence, in the pigments' structures, of substructures which could potentially cleave to known carcinogenic aromatic amines.

ETAD already challenged the scientific validity of this assumption, and received support from VCI, which sent to the top management of the Federal Environment Ministry and German Environment Agency an official request to discuss the issue with experts from the government.

Analytics

In 2015, ETAD's analytical team, composed of experts from the member companies, focussed on the development and evaluation of various test methods for PCBs and PAAs. In particular the upgrade of ETAD Method 212 for PAAs stands before completion: a final Round Robin Test took place, whose results will be evaluated before deciding the official publication.

Analytical Expert Team Members (status April 2016)

Dr. Martina Hirschen Clariant Produkte (Deutschland) GmbH

Mr. David Easterby Sun Chemical A/S

Dainichiseika Color and Chemicals Mfg. Co., Ltd. Mr. Susumu Isoda Dainichiseika Color and Chemicals Mfg. Co., Ltd. Mr. Takeshi Suzuki

Dr. Thomas Wagner Heubach GmbH Dr. Edith Wieser BASF Schweiz AG

Regulatory Affairs Committee (RAC)



The Regulatory Affairs Committee met three times in 2015, with the October meeting being the 100th meeting. The committee welcomed Juan José Regaño (Archroma) as a new member and said goodbye to Gary Peart (Fujifilm) due to the planned resignation of his company from ETAD from January 2016. Nonetheless presently still six member companies are represented in the RAC.

Between meetings work continued and RAC members maintained a flow of information ensuring awareness of emerging and changing global or national legislation together with its impact and interpretation. One of the most important aspects of RAC work is the exchange of ideas and analysis of common problems together with a crucial comparison of progress regarding developing legislation.

GHS and REACH

GHS continued to be an important discussion topic. A first change was brougth by the publication of the 5th edition of the GHS, which already affected the safety data sheets (SDSs). SDSs meeting current standards will be valid for two years, if they are issued before June 1st, 2015. In any case, from June 1st, 2017, through an amendment to be introduced by a Commission Regulation amending REACH, chemicals manufacturers will have to provide SDSs in line with the 5th revision of the UN's Globally Harmonised System.

Additionally, the RAC updated all ETAD member companies on relevant changes in the GHS status worldwide, especially considering and underlining the specific implementation details characteristic of

the different countries, as a consequence of GHS's building block approach. In 2015 many countries announced their planned or decided implementation of GHS:

- In February 2015, following the US example, the Canadian government issued final new regulations to implement GHS for workplace hazardous chemicals. The transition to GHS will occur using a three-phase approach, which will end by December 1st, 2018;
- In Switzerland, the use of GHS for the classification, labeling and packaging became compulsory from June 1st, 2015 for all chemicals, and Turkey is still working on its version of GHS. Albania is also planning GHS implementation;
- Outside Europe, Brazil as well as several Asian countries are developing CLP systems in which GHS is already used or going to be implemented.

RAC follows closely all these processes in order to report immediately about any effect on the colorant manufacturers' obligations.

REACH as well continued to be an important discussion topic. The third REACH phase is moving towards May 31st, 2018, its deadline for filing the

registration dossiers for substances with volumes of 1 - 10 and 10 - 100 t.

At the same time, registrants keep having to deal with new draft decisions and additional requests from ECHA on dossier contents of phase 1 (> 1000 t) and phase 2 (100 - 1000 t) substances currently focusing on identification and characterization as well as sameness of UVCB substances.

RAC continued in assisting the ETAD Secretariat following requests from ECHA and other agencies for information on substances of concern and their possible use in colorant synthesis. RAC member helped in particular to create general and unified answer to external requests.

Guidance to the Code of Ethics

The ETAD Guidance Document is the crucial tool assisting member companies to comply with the Code of Ethics. Therefore it is essential that it reflects the latest developments.

Due to new regulations released during the update of the document, the task turned out to be a more complex issue



than expected. Special reference had to be made to the publication and therefore consideration of the New Toys Safety Directive 2009/48/EC, leading to an almost complete reformulation of the section relating to heavy metals.

The general focus also moved from the transition to GHS to the complete GHS implementation status.

The updated Guidance Document was finalized at the end of 2015 and expected to be released in January 2016.

Nanomaterials

During 2015, ETAD continued to propose feasible approaches for organic pigments as regards the practical impact of the definition of a nanomaterial contained in the Recommendation of the EU Commission. Published in October 2011, this recommendation is not yet approved by the member states, and no overall unified measurement method has yet been defined and published. At the same time, a review of this recommendation has already been initiated.

Independent from the discussions about a definition for nanomaterials ECHA initiated a discussion on the definition of nanoforms

of a substance under REACH and their consideration in an update of the Guidance for REACH.

Following the French example Belgium and Denmark installed national nano registers in 2015 but due to the completely different approaches the requirements for pigments are significantly lower than in France.

The RAC regularly updated ETAD member companies on all ongoing regulatory discussion on the matter, also providing specific advice as regards, for example, the practical aspects of the registration in the different databases.

6th draft of the German Printing Ink Ordinance

After a break in 2014, BfR published beginning of 2015 a 6th draft of the Ordinance, which was, however, soon withdrawn.

In the meantime ETAD's communication with BfR continued; in particular ETAD prepared a draft EFSA-like dossier for a pigment which was sent to the BfR. The authorities would decide whether the information contained in such a document is sufficient to allow a pigment to be used

in printing inks. In the scope of the Draft ordinance such a dossier was necessary for the transfer of pigments from Annex 14, table 2 (listed pigments permitted only for a transition period of four years) to table 1. BfR is evaluating the document.

Revision of the BfR Recommendation IX

Following the RAC and POC input, in 2014 ETAD had confirmed to BfR in a joint letter with VdMI the importance of the Recommendation IX as a reference for the industry well outside Germany. Germany therefore continued the revision work and published the new version of Recommendation IX in August 2015. Compared to the previous version the heavy metal limits have been adopted unchanged; in contrast, the limit for primary aromatic amines (PAA) of 500 ppm has been cancelled. Instead the recommendation is now referring to the Regulation (EU) No 10/2011 and addressing a limit for PAA of 10 ppb valid for the end article. In addition, a limit of 2 ppb is valid for PAA classified as carcinogens Cat.1A and B. This limit is not anchored in the Regulation (EU) No 10/2011.

ETAD North America (ETAD NA)



ETAD maintains a presence in North America through its ETAD North America (ETAD NA) office in Washington, DC. Representing the global dyes industry, ETAD NA is recognized by government agencies, industry groups and trade associations, customers, media, academic and research organizations, and the public as the authoritative voice of the industry in North America. In coordination with the ETAD headquarters office in Basel, ETAD NA serves the North American member companies by monitoring regulatory and industry developments, managing technical projects, facilitating networking opportunities, and disseminating information concerning the environmental, health and safety aspects of the North American dyes industry.

U.S. Toxic Substances Control Act (TSCA) legislative and regulatory developments

ETAD NA monitored U.S. TSCA developments in 2015 which were of particular interest to member companies. Those included:

- Legislative efforts to modernize TSCA and promote reform and improvement in chemicals management. Separate bills were the subject of much debate with a House bill being passed early in the year and a somewhat different Senate bill passed at the end of 2015. Efforts to reconcile the two bills and achieve final enactment of TSCA reform legislation will take place in 2016.
- A TSCA 8 (e) substantial risk notification case pertaining to worker exposures to chromium VI.
- · EPA's review of processes and procedures for filing PMNs.
- TSCA Section 8 reporting rule for nanomaterials.

ETAD NA also continued to monitor developments in various testing programs under TSCA that could impact the North American dyes industry. With EPA deciding to end the High Production Volume (HPV) chemical testing program, no new test rules were issued. There were no new developments in EPA's endocrine disruptor screening program to impact ETAD NA member companies.

California Safer Consumer Products regulation

The state of California has drafted a work plan for finding safer chemicals to use in a number of priority consumer product categories including clothing and office products. Aromatic azo dyes and aromatic amines are among the chemicals in those categories that California is targeting for finding safer alternatives. ETAD NA monitored developments and noted that a guideline for alternative analysis was published which presented approaches for developing alternatives including removal of a chemical of concern, reformulating or redesigning a product to reduce the chemical of concern, and redesigning a product to reduce exposure. None of the first three priority products identified for rulemaking contains aromatic azo dyes or aromatic amines.

Regulatory developments in Canada

The following developments were noted in the subgrouping assessment of aromatic azo- and benzidine-based substances to set risk management priorities under Canada's Chemicals Management Plan:

- · Publication of final screening assessments on azo solvent and azo disperse dyes was delayed. No date for publication has been announced.
- Final screening assessments for certain azo direct and azo reactive dyes were published with none of the 69 listed substances found to meet the CEPA Section 64 criteria for toxicity. No further action was planned.
- Final screening assessments for certain azo metal complexes and other azo substances were published with none of the 6 listed substances found to meet the CEPA 64 criteria. No further action was planned.

A summary of the Domestic Substances List (DSL) Inventory Update has been published on the chemical substances website portal. The Section 71 survey for nanomaterials was published with a deadline for comments of February 23rd, 2016.



Other international chemical management issues

ETAD NA also monitored and communicated to members respecting the following developments:

- Canada/US Regulatory Cooperation Council risk assessment strategies based on modeling and exposure.
- US/Canada efforts to achieve alignment between Significant New Use Rules (SNURs) and Significant New Activity (SNAcs).
- · REACH procedures to establish restrictions on levels of certain substances in textile products.

ANSI Voluntary Sustainable Textiles Standard

ETAD NA continued monitoring developments under the ANSI Commercial Furnishings Fabric Sustainability Standard, which became effective in 2011. A conference call meeting was held to address proposed updates to the language in the standard. None of the proposed changes impacted ETAD members.

Sustainable Apparel Coalition

ETAD NA continued monitoring this group of leading apparel and footwear brands, retailers, manufacturers, NGOs, and the EPA who are working together to reduce the environmental and social impact of apparel and footwear products sold around the world.

Zero Discharge of Hazardous Chemicals (ZDHC)

North American members continued supporting the global ETAD efforts to collaborate with ZDHC in developing the Manufacturers Restricted Substances List and achieving recommended limits to impurities.

Voluntary Product **Environmental Profile** (VPEP)

The Voluntary Product Environmental Profile (VPEP) is now in active use by most ETAD NA members to provide health and safety data on chemicals supplied to the U.S. textile industry. It may be accessed online at https://vpepexchange.com.

During a conference call meeting of the VPEP task force efforts were discussed to promote its use among more customer companies.

Residual dyes in containers

ETAD NA continued developing data in support of correcting the unrealistic default assumptions used by EPA in its new chemicals program when considering the amount of residual dye remaining in empty containers. Collection and analysis of data from multiple samples taken from empty drums at customer facilities have been completed. The results, which demonstrate actual residual concentrations well below EPA's default values of 1% for powder and 3% for liquid dyes, will be presented to EPA in 2016.

Coordination with CPMA

The Executive Directors of ETAD NA and the Color Pigments Manufacturers Association (CPMA) have agreed to increase the level of cooperation between the two organizations through information exchange and joint attendance at select meetings where appropriate.

Indian Operating Committee (IOC)

For the IOC the highlight of the year was hosting ETAD's General Assembly and meetings in Goa, India on May 28th and 29th, 2015. It was a telling moment that the time had arrived for the GA to be held in India. It was an important occasion for the IOC members to meet in person the members of the other ETAD committees; it was also the final event for the IOC chairman, Mr. Ravi Kapoor, as President of ETAD, after having finished his second term.

Sustainability and growth in India

The topic of sustainability is an always present issue for the IOC members. In occasion of ETAD's General Assembly the IOC organized a panel discussion on "Sustainability and Growth in India – Challenging Synergy". A series of presentations was held by

- Dr. Deepak Parikh, MD & Vice-Chairman, Clariant Chemicals (I) Ltd.
- Mr. Steve Stilliard, MD, Huntsman International (India) Pvt. Ltd.
- Mr. Rajesh B. Rathi, Dy. MD, Sudarshan Chemical Industries Limited
- Dr. Mehmet Emre Şener, MD, Setaş and
- Mr. Ullhas M Nimkar, CMD, NIMKARTEK Technical Services Pvt. Ltd.

The speakers presented and debated together different aspects of the challenge, also underling positive developments both at the manufacturers and at the government level.

Textiles

During 2015 the IOC continued its active collaboration with the Bureau of Indian standards, where Mr. Sevak (Heubach Colour) attended the Textile Committee meeting in June 2015. IOC had formed an internal working group to review the standards related to textile colorants and will be submitting the revised draft shortly. Strong emphasis was given to the adoption of international test methods to harmonize the standards. Overall the participation of the IOC was welcomed by BIS and it was decided that Dr. Rehman would attend future meetings and be responsible for this area.

Food contact materials

IOC also participated in the BIS Plastics Committee meeting on December 18th, 2015 in Delhi. BIS is in the process of reviewing food contacts standards and, in particular, IS 9833, which is the standard related to colorants for food contact. This standard was subject of important discussions, since it was felt that it needs to be revised and be made more stringent. Additionally, it was noted that many companies had submitted new requests to BIS for including new substances in the list. IOC was asked to submit its comments and at present is collating response from all its members.

Latest activities

The IOC met on February 12th, 2016 and discussed in a comprehensive meeting a number of topics pertaining to the dyes and pigments industry. Two excellent presentations updated the committee members on the status of current issues: The first by Mr. Sateesh Babu, Director, ICC, who summarized various aspects of the new government proposal on environment regulations, the second by Mr. Virendra Landge, Manager, Regulatory Compliance & Advocacy, Coca Cola, India, who proposed an overview on "Food Safety and Regulations". Additionally, Dr. Sunil Deval of Clariant Chemicals (I) Ltd. reported on the concerns related to IS 9833 as regards Pigment Red 8, described in the previous section.

A brief discussion was done on the "French Positive List" and it was decided that some of the information on substances which are listed there would be incorporated in the proposed IS 9833 list. The presence of the Coca Cola representative also allowed a detailed discussion on migration of colorants into food.

At the end of the meeting Mr. Ravi Kapoor requested to be relieved of the chairman position, but agreed to continue upon request of all the members. It was decided that the new chairman would be proposed and elected during the next meeting.

Japanese Operating Committee (JOC)



In 2015, the Japanese Operating Committee celebrated its 5 years' anniversary since its re-activation in 2010. The committee is formed by representatives of 6 companies, each of which is an ETAD member present in Japan.

Based in Tokyo, the JOC monitors the regulatory situation for colorants in Japan and works in close communication with the ETAD office in Basel.

A joint meeting with the Basel office now comes to be a yearly event. This year in November the JOC invited Dr. Hofherr to Osaka. On the same day Dr. Hofherr also held a seminar at JDICA (Japan Dyestuff and Industrial Chemicals Association), during which he presented key international regulatory issues on dyes and pigments. Osaka is located in the center of "Kansai" district which has a quite active dyes and pigments industry; the seminar gave JDICA members in this district the opportunity to become more familiar with ETAD's activities, and provided them with first-hand information on SHE in the global industries.

PCBs issue

In the beginning of 2015, the PCBs topic regained attention in Japan. During the third and final BAT committee meeting, held in March, JDICA, collaborating with JOC members, gave a presentation about how industries manage quality control, especially for impurities. For the specific case of PCBs we proposed to set two-tiered controlling limits. One is the self-management upper limit, which would trigger the banning of a substance; the other are internal controlling values, which will be lower than the self-management upper limit, but not cause a ban of the substance if occasionally exceeded.

In April 2015 the BAT committee concluded and published its draft final report, which was under public consultations until May. Then it was suspended again, and the answer to the public comments has not been published yet. Therefore, the interim upper limit of 50 ppm and the obligation to notify the authorities of the presence of

PCBs in any amount are still the current reference for the industry.

In December, the Ministry of Environment (MoE) contacted JDICA to take actions for preparing the answer to the public comments. It is expected that a final decision on the issue will be taken in 2016. The JOC will continue its communication with the authorities and report back to the other ETAD members.

Amendment to the Industrial Safety & Health Law (ISHL)

In May 2015, the labour policy council of the Ministry of Health, Labour and Welfare (MHLW) approved the ministry's proposed ordinances to introduce ISHL amendments, expected to take effect on June 1st, 2016. JOC members, as part of the industry representatives' group, had started already in 2014 to discuss with the authorities the impact of the planned amendments on the industry. The new rules will in any case bring an additional burden to the manufacturers; in particular, they will:

- make it compulsory for companies to conduct risk assessments on hazardous or harmful chemicals that are subject to safety data sheets (SDSs);
- expand labeling obligations to cover 640
- set up an exemption list to the labeling obligation for some metals, except when they are in powder form;
- establish cut-off values for chemicals newly added to the labeling obligation.
- revise the cut-off values for chemicals currently subject to labeling.

The JOC will keep following the issue and provide its input to the discussion whenever possible.

Nano issue

In Japan there are still no laws or ordinances which regulate nanomaterial directly. However, administrative guidance was provided to manufacturers, who introduced voluntary monitoring in order to guarantee workers and environmental safety.

To address this issue, the project "Development of Innovative Methodology for Safety Assessment of Industrial Nanomaterials", was launched in 2011 by the Ministry of Economy, Trade and Industry (METI). The JOC followed this project closely until its end in 2015. The results of the project will be updated to the latest status in March 2016, and will be available for download from the website of the National Institute of Advanced Industrial Science and Technology.

Act on Control of Household Products

In April 2015, the Japan MHLW announced the approval of the amendment on the "Act on Control of Household Products Containing Harmful Substances". The amendment designates azo dyes that may cleave to any of the 24 listed carcinogenic aromatic amines as harmful substances, with a limit of detection of 30 mg/kg for the amines in textiles. Date of entry into force is April 1st, 2016. In its current form, the act is practically identical with the corresponding EU restriction, including the recommended detection methods. However, the JOC will watch the implementation process in 2016 as well as any future progress of the Act, in order to be able to communicate immediately any further amendment of relevance for the colorant industry.

Information and external activities



Position papers and comments

ETAD and EURATEX comments on the Dutch report "Hazardous Substances in Textile Products" (RIVM Report 2014-0155)

Submitted to the expert group on textiles of the European Commission, March 2015

TAC position paper on the responsibility for compliance along the value chain Submitted to ZDHC, November 2015

Presentations and publications

Perspiration fastness of dyes

Presentation to the Dutch RIVM, Bilthoven, September 2015

Overview of ETAD's activities on key issues

Presentation to JDICA, Tokyo, November 2015

ETAD's objectives

Presentation at the 4^{th} Industrial Green Chemistry World Convention, India, December 2015

GHS Mixtures Q&A (available to member companies in four languages)

Quick reference for the communication between colorants manufacturers and customers, March 2015

Development of Regulations Worldwide Related to Colorants in 2014Article for CDIA's Annual Report 2014, March 2015

ETAD Highlights

Bi-monthly information leaflet for ETAD members

ETAD's brochure

Overview on ETAD's structure, membership and current activities, regularly updated and distributed at external events

ETAD in the press

Netherlands identifies hazardous substances in textiles (Chemical Watch, April 2015)

External activities

During 2015, ETAD continued or started its activities in different projects with external groups and associations. The most relevant collaborations included:

- Participation in the Zero Discharge of Hazardous Chemicals (ZDHC) group as representative of the colorants manufacturers
- · Participation in ISO groups dealing with pigments standards
- Study on residual dyes in containers with the US EPA
- General input to the nano debate and corresponding national and international activities
- Collaboration with the Japanese METI on the PCB issue
- Coordination with VCI of the communication on the planned WGK 3 classification of diarylide pigments
- Participation to the Revision of the German Printing Ink Ordinance
- Information exchange with the Swedish Keml for a study on aniline in toys textiles
- Information exchange with the Swiss authorities on non-regulated amines in dyes
- Participation in the Colour Index Pigments and Solvent Dyes Technical Board

Further information on the most relevant topics can be found in the single committees' reports.

Organisation chart



Board

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Mr. Detlef Fischer BEZEMA AG

Vice President

Dr. Reiner Jahn BASF Schweiz AG

Treasurer

Mr. Georg Roentgen Huntsman Textile Effects Dr. Clemens Grund

DyStar Colours Distribution GmbH

Mr. Ravi Kapoor Heubach Colour Pvt. Ltd.

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Dr. Yoshitaka Koshiro Dainichiseika Color & Chemicals Mfg. Co., Ltd.

Dr. Mehmet Emre Şener Setaş Kimya Sanayi A.Ş.

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Mr. W. Richard Bidstrup Legal Counsel of ETAD North America Cleary, Gottlieb, Steen & Hamilton

Trustee and accounting

Mr. Reto Hubli Fidares Treuhand

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Archroma Management GmbH Ms. Carole Mislin

Dr. Elena Schramm BEZEMA AG

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Dr. Anette Weber DyStar Colours Distribution GmbH

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Archroma Management GmbH Dr. José Juan Regaño Dr. Erich Schultz DyStar Colours Distribution GmbH

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Mr. Ravi Kapoor Heubach Colour Pvt. Ltd. Mr. P. S. Kulkarni Jay Chemical Industries Ltd.

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Dr. Siva Rama Kumar Pariti Dystar India Pvt. Ltd.

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Archroma India Pvt. I td. Dr. Dileep Wakankar

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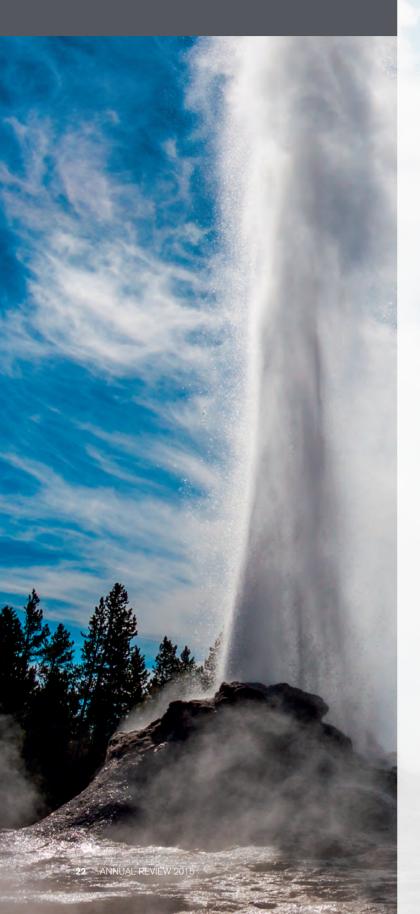
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Mr. Makoto Sakamoto Toyocolor Co., Ltd. Mr. Kikuo Tsuchiya **DIC** Corporation Mr. Hisashi Uraki

Toyocolor Co., Ltd.

^{*} These lists give membership as in April 2016

Code of Ethics



Preamble

The aim of ETAD is to minimize possible negative effects on health and the environment arising from manufacture and use of synthetic organic colorants and to ensure information on the best practicable protection is provided to the purchasers of these products.

To achieve this goal and to promote the image of a responsible and safety minded manufacturing industry, it is necessary that in all aspects related to human and environmental safety, members be encouraged to adhere worldwide to a high ethical standard.

Therefore, at the proposal of the Board, the General Assembly of ETAD approves this Code of Ethics as a key policy of the Association. All ETAD member companies are obliged to comply with this Code of Ethics.

1. Principles of responsible care

ETAD members are committed to support a continuing effort to improve the industry's responsible management of synthetic organic colorants. Members shall develop, produce and distribute products in a responsible manner which protects human health and the environment from unacceptable risks during manufacture, transport, use and disposal. Specifically, members shall implement a responsible care program in which the member undertakes to manage its business in accordance with the following principles:

- To recognize and respond to any community concerns about synthetic organic colorants and its manufacturing operations;
- To produce only synthetic organic colorants that can be manufactured, transported, used and disposed of safely;
- To make health, safety, employee training, quality assurance and environmental considerations a priority in planning for all products and processes;
- To provide employees, distributors and customers information on the health or environmental effects of synthetic organic colorants and recommend appropriate protective measures to ensure their safe use, transportation and disposal;
- To operate all facilities in a manner that protects the environment and the health and safety of employees and the public;

- To promote research on the health, safety and environmental effects of its products, processes and waste materials;
- To cooperate with public authorities in establishing well-founded environmental, safety and health regulations; and
- To promote these principles of responsible care to others who produce, handle, use, transport or dispose of synthetic organic

The responsible care program shall fulfil, but not be limited to, the specific obligations described under paragraphs 2-5 below.

2. Product Safety Policy

It is the policy of ETAD members to take all reasonably practicable steps in order to ensure human and environmental safety in the use of the dyestuffs and organic pigments (synthetic organic colorants), manufactured or distributed by them. Members shall comply worldwide with all applicable laws and regulatory requirements dealing with the safety and the environmental impact of synthetic organic colorants.

ETAD recognizes that the legal requirements for hazard communication differ considerably in various regions where organic colorants are marketed. A primary objective of this Code of Ethics is to ensure that such differences do not deprive customers in countries with less stringent requirements of hazard information which is made available to their counterparts in countries with more comprehensive regulations. To achieve a common high standard of hazard communication ETAD members shall

- fully inform all customers about all known significant hazards;
- adopt policies to assure an equivalent level of hazard communication worldwide concerning their product.

3. Products Safety Information

3.1. Safety Data Sheets

Member companies shall ensure that for each of the synthetic organic colorants on their selling range, there is a safety data sheet with an appropriate information content and that it is supplied to all customers.

3.2. Labeling

The EU regulations provide an appropriate basis for classification and labelling of organic colorants.

Where the laws of the country the products are sold to, require more stringent or mandate different labeling, the members shall adhere to such required or mandated labelling. In countries with less stringent requirements the labeling shall be in accordance with the EU system or an equivalent consistent with the policy of achieving a uniformly high standard of hazard communication.

3.3. Education and Awareness

ETAD members shall endeavour to inform customers of the safe handling procedures best suited to the products involved.

4. Cessation of manufacture and sale of certain hazardous colorants

The manufacture and sale of certain dyes identified as hazardous by regulation or classification by expert bodies is incompatible with ETAD membership. These dyes are referred to in Annexes A and B.

5. Compliance

Member companies shall comply with the Code of Ethics and shall make every effort to ensure that their subsidiaries do so.

Annex A

Azo dyes or preparations of azo dyes used in consumer applications, which contain, or release by reductive cleavage of azo bonds to any of the specified amines*.

Annex B

Individual Dyestuffs*

^{*} The corresponding amines and dyes are listed with the applicable limit values in "Guidance to ETAD Member Companies on the Implementation of the Code of Ethics" which is regularly updated to the current state of scientific knowledge.

Benefits of ETAD membership



Recognition

Recognised by regulatory authorities, customers, and the public as the authoritative source of information on health, safety, and environmental issues relating to organic colorants.

Representation

Represents interests of members and customers to government authorities, the media, other industries, public interest groups, organised labour, academia, and research/testing/consulting organisations.

Harmonisation

Advocates, where regulations are necessary, a harmonisation of the requirements, so that compliance costs are reduced.

Code of Ethics

Encourages members to adhere worldwide to a high ethical standard and promotes image of a responsible and safety-minded manufacturing industry.

Guidance

Provides guidance to ETAD member companies on interpretation of new regulatory requirements and recommends specific measures to implement the ETAD Code of Ethics.

Education and training

Develops and publishes education and training materials pertaining to organic colorants, e.g. for safe handling practices, product stewardship, and pollution prevention.

Research and testing

Cost-sharing of research and testing programs aimed at a better understanding of the health and environmental aspects of dyes and organic pigments.

Information

Responds to inquiries about the colorants' industry, provides information on topical issues and disseminates comments and position papers.

Database

Maintains and makes available to members a computerised database of literature pertaining to the health and environmental aspects of dyes.

ETAD member companies



Archroma Management GmbH

Switzerland

ATUL Limited

India

BASF SE

Germany

BEZEMA AG

Switzerland

Cappelle Pigments n.v.

Belgium

Chroma Chemical Corp.

Taiwan, R.O.C.

Clariant International AG

Switzerland

Colourtex Industries Ltd.

Dainichiseika Color & Chemicals

Mfg. Co., Ltd.

Japan

DIC Corporation

Japan

DyStar Colours Distribution GmbH

Germany

Everlight Chem. Industrial Corp.

Taiwan, R.O.C.

Farbchemie Braun GmbH & Co. KG

Germany

Heubach GmbH

Germany

Hwa-Tai Industry Co., Ltd

(associate member)

Thailand

Huntsman Textile Effects

Switzerland

Jay Chemical Industries Ltd.

India

M. Dohmen GmbH

Germany

Nippon Kayaku Co., Ltd.

Japan

Oh Young Ind. Co. Ltd.

Korea

Oriental Giant Dyes

& Chemical Ind. Corporation

Taiwan, R.O.C.

Sensient Colors Inc.

USA

Setaş Kimya Sanayi A.Ş.

Turkey

Sudarshan Chemicals Ind. Ltd.

India

Sun Chemical A/S

Denmark

Synthesia, a.s.

Czech Republic

T&T Industries Corporation

Taiwan, R.O.C.

Tennants Textile Colours Ltd.

Northern Ireland

TFL Ledertechnik GmbH

Germany

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