# ANNUAL REVIEW 2016

### Working Together for Safer Colorants



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ETAD

The Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers

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# **Mission statement**

#### The purposes of the association are to:

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

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

Encourage harmonization of health and environmental regulations in key geographical areas.

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

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

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

# Joint preface from the President and the Executive Director

One of the strengths of ETAD as an organization is undoubtedly its internationality: we are able to provide a forum in which the colorant industry worldwide can sit together at the same table to discuss their issues and pool their knowledge and resources on toxicological and environmental matters. These activities open up opportunities to implement our principles in practice and also contribute to confirm our organization as a reference for responsible manufacturers. In this regard, 2016 was an exceptional year in the history of our association, and in the following paragraphs we will outline our main achievements.

A first success were our association's activities aimed to strenghten our Code of Ethics (CoE). In 2014, the Board of ETAD had set the goal that all limit recommendations for impurities in dyes should be transferred into the CoE by 2020. This goal was reached already after two years with approval by the members at our General Assembly in Lisbon last year. Moreover, during the General Assembly it was also agreed that a clear commitment to social responsibility would become an integral part of the CoE as mandatory requirement for all member companies.

In 2016, another goal agreed upon by our Board came with very satisfactory results: we could attract more responsible colorant manufacturers based in China and India. During the year we welcomed the companies Hwa Tai Industry Co., Ltd., Hubei Color Root Technology Co., Ltd., Meghmani Dyes and Intermediates Ltd., and Yorkshire Chemicals Ltd. to support us in our endeavor to make this world a safer and cleaner place. Also in the beginning of 2017, the interest of new companies in joining ETAD continued with Matex International Ltd. becaming a new member in January and CINIC Chemicals Co. Ltd. in March. Further, a prospective pigment manufacturer member already reached the audit phase of the evaluation process. In this connection, we would like to highlight that Gecheng Xie and Heidi Hofherr have established an ETAD-specific audit procedure for new companies willing to join ETAD. The audit takes particularly into account the colorant requirements which are a distinguishing feature of our association.

An additional highlight was the first meeting of the Taiwanese Operating Committee, which took place on November 15, 2016 in the offices of the Taiwan Dyestuffs and Pigment Industrial Association in Taipei (TDPIA). The founding companies OGD, Everlight, T&T and Chroma established the committee with the goals, shared by our other regional committees, to coordinate their forces as a group and improve the communication with other stakeholders in their region. Our thanks also go to the General Secretary of TDPIA, Mr. Y. H. Yien and Secretary Mrs. W. T. Shu, who act as contact for the Taiwanese Operating Committee. As a further example of our association's international presence, for the first time ETAD's Executive Director was invited by David Wawer, Executive Director of CPMA to attend SOCMA's annual meeting in New York City in December. As part of ETAD's participation, a presentation was given at CPMA's Board meeting on current activities of the Pigment Operating Committee.

Our Annual Report depends on the many contributions made by the Chairmen of the various committees. So, our thanks go to Frido (RAC), Mark (DOC), Klaus (POC), the members of the JOC, Tucker (ETAD NA) and Ravi (IOC). Their reports reflect all the efforts of the experts in these committees to tackle the many and often complex issues the colorant industry faces throughout the world. ETAD's efforts and the dedication of its members and their affiliates will ensure that the colorants manufacturing industry maintains its reputation as a responsible, ethical, and safety-conscious industry.

Looking back to 2016 and 2015 we would also like to thank Detlef Fischer, ex-CEO of Bezema, for his good work as former President of ETAD. In particular, he helped greatly to strengthen ETAD's Code of Ethics, one of the several ambitious goals he passed on to his successor. As new President and Executive Director of ETAD we are looking forward to working together in the years ahead on this and many other projects.

this July

Dr. Reiner Jahn (BASF Colors & Effects Switzerland) **President** 

W. HAMA

Dr. Walther Hofherr Executive Director

# Membership

Hwa-Tai Industry Co., Ltd became an associate member in February 2016, whereas Meghmani Dyes and Intermediates Ltd., Yorkshire Chemicals Ltd, and Hubei Color Root Technology Co., Ltd. joined ETAD as regular members in June, August and October 2016, respectively. Fujifilm Imaging Colorants Ltd. (UK) left ETAD effective January 2016. In June 2016, BASF's membership was transferred to the new company BASF Colors & Effects GmbH.



### Finance

ETAD is a non-profit association. The operating expenses are recovered mainly by means of payments by the ETAD members. In 2016, total income was SFr. 986'000 compared with total expenditure of SFr. 1'033'000, resulting in a loss of SFr. 47'000.

### Fig. 2 – Summary of income / expenditure 2000 - 2016



#### 42<sup>nd</sup> Ordinary General Assembly

The 42<sup>nd</sup> Ordinary General Assembly of ETAD was held in Lisbon on May 13, 2016.

With the resignation of the President, Mr. Detlef Fischer, shortly before the General Assembly, his role was taken over by the Vice-President, Mr. Reiner Jahn.

Out of the ETAD membership of 31 companies at the time of the General Assembly, 19 were present or represented by proxy; of the total vote entitlement of 79 votes, 63 votes were represented at the meeting (80%).

The participants approved unanimously the minutes of the 41<sup>st</sup> Ordinary General Assembly 2015 as well as the Annual Report 2015.

The Treasurer Mr. Georg Roentgen presented the financial report for 2015, which had been sent in due advance to all member companies. In 2015, total income had been SFr. 906'000 compared with total expenditure of SFr. 1'089'000, resulting in a loss of SFr. 183'000. This financial report was approved unanimously.

The Board proposal for the Budget 2016, also presented by Mr. Roentgen, and the appointment of PriceWaterhouseCoopers AG as auditors for the 2016 accounts were approved unanimously by the General Assembly.

Dr. Jahn presented to the Assembly ETAD's main goals for 2016.

He communicated that the active recruitment of potential new members in Eastern countries is going to be continued, and collaboration with other associations along the value chain will remain a crucial part of ETAD's activities. Specific colorants applications will require special attention, due to the new developments in regulatory activities involving additional restrictions on colorants. The Board will discuss further the Code of Ethics, already a topic during this General Assembly, in order to decide on its possible additional strengthening.

# Joint meeting of ETAD Board, DOC, POC and RAC members

The purpose of the ETAD joint meeting is to provide an opportunity for membes of the different committees 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 also participated in the specific committee meetings and gained a first-hand experience in how the committees work and approach colorant issues. Additionally, they can directly provide their comments in the committees on the presented topics.

The 2016 ETAD joint meeting covered the following main topics:

- Feedback from Board members of their visits in the morning sessions of the committee meetings
- ETAD HSE standards: from reactive to proactive
- Membership fees

The Board proposal for its composition for 2016/2017 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:

Dr. Reiner Jahn Dr. Clemens Grund Mr. Georg Roentgen Dr. Stefan Ehrenberg Mr. Ravi Kapoor Mr. Peter Krummeck Ms. Carole Mislin Dr. Mehmet Emre Şener Dr. Yoshitaka Koshiro Dr. Rüdiger Walz BASF Schweiz AG\* DyStar Colours Distribution GmbH Huntsman Textile Effects BEZEMA AG Heubach Colour Pvt. Ltd. Sun Chemical A/S Archroma Management GmbH Setaș Kimya Sanayi A.Ş. Dainichiseika Color & Chemicals Mfg. Co. Ltd. Clariant Produkte (Deutschland) GmbH

President Vice president Treasurer

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

G. Roentgen, who participated in the DOC meeting, thanked the committee members for the lively discussion regarding current issues. He remarked in particular on the progress of the cobalt determination method in which there had been some issues with inter-laboratory comparison. By using an external laboratory with expertise on the specific method, the project is expected to be finalized soon. Regarding the project by Swiss authorities on "non-regulated amines" he supported the DOC decision that ETAD should not provide financial support because of concerns on the chosen scientific approach. However, ETAD will keep in contact with the Swiss authorities about this matter. Another important topic mentioned by G. Roentgen was the regulatory situation in countries/regions like Taiwan, Korea and Canada as they develop their own inventories. He remarked on the importance of ETAD staying current in order to address the ever changing regulations.

R. Jahn mentioned the very energetic contributions of POC members to the discussion about changes to ETAD's Code of Ethics concerning new impurity limits. As a result, the POC created a specific working group to evaluate possible pigmentrelated amendments to the CoE. Furthermore, he reported that ETAD's Analytical Method 212 had been finalized by the analytical experts after successful completion of the Round Robin Test with 10 participating laboratories. After a final review, the method will be distributed among ETAD members as Method 212\_May 2016. As a further development, the POC discussed a possible adaptation of the method to solvent dyes and agreed to form an expert working group of analytical experts to evaluate the feasibility of this project.

Finally, R. Jahn touched on the topic of the current global PCBs issue, including the regulatory situation in Japan as well as other important problems currently challenging the pigments industry. He concluded his remarks by stressing the benefits of establishing a closer collaboration among the three associations strongly involved in pigment-related activities: CPMA, Eurocolour and ETAD.

# ETAD HSE standards: from reactive to proactive

W. Hofherr emphasized that it is essential for ETAD as an ecological association to move from the common reactive HSE culture towards a more effective proactive one. Although the adaptation of new impurity limits for dyes into the CoE is a great step forward, the question was raised if ETAD should be even stricter when it comes to dye and pigment-relevant impurity limits. Referring to the discussion in the POC, W. Hofherr proposed that, to improve ETAD's visibility further, the association should aim to become a leading reference source for pigments industries by including limits for pigment products (textile applications, food contact materials etc.) in the CoE as well. In this context, he mentioned that a Board working group had been formed with the specific purpose of developing strategies for strengthening ETAD's CoE and therefore enhancing ETAD's position as a leading partner in the colorant industry.

The attending member companies also underlined the importance to enhance the role of ETAD in implementing new regulations along the supply chain by improving communication from the top (manufacturers) to the bottom (retailers). Moreover, they suggested to develop analytical methods for direct examination of substrates like textiles or plastics for both dyes and pigments.

These valuable inputs discussed at the joint meeting will be considered when planning further actions and strategies, so that ETAD can remain ahead in its aim for constant improvement in the safety of colorants.

### Membership fees

At the end of the joint meeting R. Jahn announced that, according to the expected financial results for 2016, the planned vote for increasing the membership fees for 2016 had been cancelled; other measures would be taken to compensate for potential financial losses.

# Dyes Operating Committee (DOC)

The year 2016 was, as past years, strongly REACH-driven. A direct influence on DOC activities was obviously the 2018 registration, but equally important was the project on further restrictions for CMRs in articles. The new information gathered for REACH also started the communication between ETAD and the Japanese authorities on mismatched structures in the METI inventory. Additionally, the DOC continued to follow the implemention of other regional registration schemes similar to REACH.

Another main broad topic for the DOC was the chemical profile of dyes as addressed in connection with various issues including method development for cobalt dyes, non-regulated amines, ZDHC group, and, most importantly, the significant revision of the dyes requirements in ETAD's Code of Ethics.

#### Update of structures in the Japanese METI inventory

Following the preparation of the detailed dossiers for REACH, DOC member companies discovered that updated information on the structure of some dyes, made possible by modern analytical methods, no longer matched the data previously provided to the Japanese METI (former MITI) inventory. The committee members collected detailed information on relevant cases and asked the ETAD office to address the issue with Japanese authorities. Through the joint effort of the Japanese Operating Committee and the Japan Dyestuff and Industrial Chemical Association (JDICA) the communication with METI was established and the necessary corrections were accepted.

#### ZDHC

During 2016, ZDHC completed a radical change in its structure, in which the role of industrial associations like ETAD was redefined. In the new structure industry representatives would pay a membership fee and join other stakeholders (e.g. NGOs, academia and so on) on the "MRSL Advisory Board". Each stakeholder group in this board would have a single vote when deciding on new substances to be included in the MRSL. Further input from the industry would be possible in different "Focus Areas" and in discussion of specific limits and methods for MRSL entries.

The participation of ETAD under the new conditions was discussed internally, in particular with DOC members, who concluded that the association's presence in ZDHC is still important as an opportunity to influence further decisions on feasible requirements for colorants. Additionally, ETAD will share the seat on the MRSL Advisory Board with the association TEGEWA, in order to combine competencies and cover the chemical requirements of the whole textile dyeing and finishing process.

#### CMRs in articles

The European Commission project, started in November 2014 for a restriction of CMRs in consumer articles under Art. 68(2), is now coming to an end. Using the "category of articles" approach, the Commission selected textile and clothing articles as a first test case and started collecting information on classified substances that can be present in such 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 substances classified as CMR 1A and 1B. Thanks to this input, the number of substances was drastically reduced. Further discussion between authorities and stakeholders on the remaining substances is scheduled for the beginning of 2017.

#### Non-regulated amines

The Swiss authorities are continuing their evaluation of the possible CMR properties of non-regulated amines. During 2016, the DOC decided to keep following the project only in the role of external advisor for the Swiss authorities. ETAD will provide updated information on relevant amines and dyes, and monitor any new developments in case the final results have crucial implications like, e.g., causing an expansion of the list of banned amines.

The DOC also noted the increasing appearance of aniline as a possible critical substance on retailer lists or textile-related projects, based on its classification as suspect carcinogen. ETAD, with the assistance of the DOC, collected all updated scientific evidence on the amine and is preparing an evaluation of these data from the specific point of view of consumer exposure. This evaluation will be distributed to all member companies as a general reference for answers to external inquiries.

# Extractable cobalt in complex dyes

The project on a reliable test method for the determination of free cobalt in dyes is still ongoing. Experts from the member companies compared their experience with the method with that of the external laboratory Metrohm, in order to clarify possible differences in application of the method which could explain diverging results. Also important is to understand the details of how the method can be applied to different cobalt complexes.

#### REACH

Even in the last phase of the EU REACH registration of substances members found it still necessary to continue an exchange of information on their experience in compiling dossiers and the corresponding responses by ECHA. Companies had to cope with tool updates, changes in requirements, dossier checks and other REACH-related activities (e.g., the already addressed project "CMRs in articles"). The discussion of common approaches ensured a continuous learning experience and improved the efficiency of member companies when dealing with the legislation.

This European experience obviously translated into optimized approaches to the rising new REACH-like legislations in other jurisdictions. In particular for Korea, Turkey and Taiwan, the local presence of DOC members allowed not only a constant update on the current status but also a direct feedback from industries about actual consequences and practical issues.

### ETAD's guidance on implementation of Code of Ethics

In recent years, the DOC members have discussed the possibility of extending the requirements for dyes in ETAD's Code of Ethics and provided their feedback to the ETAD offices. In 2016, it was proposed at the General Assembly in Lisbon that the existing recommendation for dyes in the Guidance document become mandatory for all member companies. The DOC also recommended a more precise definition in the scope of the restrictions. The General Assembly agreed to the corresponding amendment to the CoE, which will also be incorporated into the Guidance under the RAC supervision.

# Pigments Operating Committee (POC)

In 2016, the POC continued its advocacy work for pigments as nano materials, about their presence in REACH and national inventories, as well as their characterization in terms of physical and toxicological properties. In other relevant activity the POC followed changes in the legislation on sensitive applications including related test methods.

In particular, the unclear status of the German Printing Ink Ordinance versus a new EU-wide regulation is causing concern among companies. In this regard, the POC has started considering the possible different outcomes and discussing their impact on organic pigments.

### REACH

ETAD continues to serve as a platform for lead registrants. After the second tier submissions of dossiers the POC focused on transparent assessment and communication to authorities on nano properties of pigments. The status of the registrations was monitored and specific topics (e.g. particle size, particle size distribution, measurement method) were addressed to develop a common industry position. The expected change to the REACH annexes as well as the development of a new REACH guidance for nanomaterials gained special importance.

#### Nano

Nano still was one of the central topics of 2016. Despite the fact that no harmonised test methods are available to officially prove the nano status of a pigment according to the recommended EU nano definition, available data suggest that most of the pigments should be considered as nanomaterial.

Therefore, five major topics potentially impacting organic pigments were carefully reviewed: the possible adaptation of the REACH annexes, the review of the nanomaterial definition, the development of a nano-related REACH guidance by ECHA, the development of measurement methods to prove the definition, and the implementation of national nano product registers. This was the status in 2016:

- After harmonizing discussions between DG GROW (Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs) and DG Environment, the further process of adaptations of REACH annexes related to nanomaterials is advancing slowly.
- The review of the nanomaterial definition is still ongoing.
- Due to the slow progress of the abovementioned projects ECHA started the development of a new REACH guidance related to nanomaterials. Four different Partner Expert Groups (PEGs) were installed comprising of participants from ECHA, member states, the European Commission and further stakeholders like industry and NGOs.
- Easy and readily available measurement methods to prove that a powdered material is not a nanomaterial are still missing.

• First declarations for the national nano product registers were required in Denmark and Belgium. Due to scope and exemptions very limited impact on organic pigments was seen in Denmark. In Belgium, only substances had to be registered for the moment, while the mandatory registration of mixtures was forseen to start in January 2017. Likewise the POC continued to follow and, if possible, to influence the development of further national nano product registers (or, as already proposed, an EU nano observatory). It is a particularly important task to communicate a clear message on the status of their products to minimize the burden to the companies.

A quite significant ETAD project related to this topic is the inhalation study started in 2014. The study is aimed at further enhancing the existing data set and confirming that pigments are safe independently of their particle size. Available results have shown no indication of nanospecific toxicity.

Finally, the POC continued its communication with authorities on different levels (EU Commission, Member State Competent Authorities, ECHA) and NGOs as well as its close industry cooperation including downstream users (e.g. EFFCI), advocating for pigments as safe nanomaterials.

#### **Analytical Expert Team members**

Dr. Martina Hirschen	Clariant Produkte (Deutschland) GmbH
Mr. David Easterby	Sun Chemical A/S
Mr. Yukio Shinagawa	Dainichiseika Color and Chemicals Mfg. Co., Ltd.
Mr. Takeshi Suzuki	Dainichiseika Color and Chemicals Mfg. Co., Ltd.
Dr. Thomas Wagner	Heubach GmbH
Dr. Edith Wieser	BASF Colors & Effects Switzerland

### Sensitive applications

The use of pigments in sensitive applications represents an important challenge for pigment manufacturers, because of the required specific impurity profiles. Along with the development of general accepted test methods, ETAD follows regulatory changes through the POC and is usually involved in corresponding discussions with authorities at the draft stage.

#### Toy safety

Even though the toy safety standard is in force, ETAD continued to monitor corresponding activities aimed to improve the remaining deficiencies. In particular, the official process for the re-evaluation of the test method for chromium is still ongoing. Additionally, new limits for specific heavy metals in toys applications are under discussion, and the POC needs to evaluate the potential impact on the companies' products.

#### Food contact legislation

In the context of Commission Regulation No. 10/2011 or PIM (Plastics Implementation Measure), a guidance document was published to illustrate the reporting responsibilities within the supply chain. ETAD discussed with EUPIA how 'adequate information' could be provided to the downstream user. It was concluded that this information is part of the product specification between customer and supplier.

The developments of the German Printing Ink Ordinance were followed by the POC until the publication of the final draft, which was officially notified to the European Commission by the German Ministry BMEL in July 2016. Extensive comments and objections from other member states' competent authorities resulted (again) in the delay of the process. However, the POC already started to evaluate the potential impact as well as possible actions. A first coordination meeting is being organized with EuPIA to develop a common approach.

It must also be mentioned that the PIO might still be superseded by a corresponding EU-wide regulation; the POC is keeping this option open in its preparation of a suitable strategy for pigments manufacturers.

#### Standardisation

The growing number of regulations requires solid definition of terms and test methods. It is important that these standards be used by the regulators. For that reason ETAD started its activities in the ISO technical committee TC 256 (pigments and extenders), participating in working group 1 for terms and definitions, working group 2 functional pigments and working group 3 for general test methods. A first successful activity was the standardisation of the term colorant in the ISO FDIS 18451-1. In addition, working group 3 accepted the assessment method for PCB (ETAD method 229) in 2016 as a new work item proposal.

#### Further activities

Publications about pigment-related topics such as PCB environmental analyses are carefully reviewed as well as activities from authorities such as planned changes of water hazard classes in Germany. During 2016, the POC and the ETAD office also prepared appropriate responses to these issues in collaboration with other associations.

#### Analytics

The Analytical Expert Team develops methods which can later be used by ETAD companies and external laboratories. When feasible, ETAD methods are also proposed as basis for international standards.

In 2016, ETAD's analytical team, composed of experts from the member companies (see box on top of the page), finalized the ETAD method for the determination of PAAs in organic pigments (as Method 212\_May 2016), which is now available to the member companies.

# Regulatory Affairs Committee (RAC)

The representatives of the six member companies of the RAC met three times in 2016 to exchange information about and interpret the impact of emerging and changing global or national legislation. The most relevant changes in regulations which affected colorants during the year are summarized below.

#### GHS

In 2016, several regions and countries completed their transitional phase or finalized milestones of the GHS implementation. The corresponding information was distributed to ETAD members for a timely preparation of any needed adaptation of their product labels.

In **Europe**, one transitional provision is still open: Mixtures classified, labelled and packaged in accordance with Directive 1999/45/EC and already placed on the market before June 1, 2015 are not required to be re-labelled and repackaged until June 1, 2017.

Open questions are how to notify products to the Poison centers (CLP Art. 45) and how to protect confidential business information. Main issues pointed out by industry were disclosure of full composition, individual submission to each member state, and the use of the official language of the member state.

Also a European wide harmonized format for notification is still missing.

In **Canada**, Health Canada released the full technical guidance on the requirements of the Hazardous Products Act and the Hazardous Products regulations supplier requirements. From June 1, 2017 Phase II of the Implementation of GHS will be mandatory.

The RAC members also provided updates of the GHS status **outside Europe**.

#### In detail:

- **Turkey**: The classification and labelling for mixtures must be implemented by June 1, 2016.
- Australia: The implementation phase for GHS ended December 31, 2016.
- **Taiwan**: Since January 1, 2016 GHS including classification and labelling is in place.
- Indonesia: The classification and labelling for mixtures must be implemented by December 31, 2016.
- **Thailand**: The deadline for classification and labelling according to GHS is March 13, 2017 including mixtures.
- Vietnam: The implementation of GHS was completed on March 31, 2016.

# REACH and REACH-like legislation

In the **EU**, the third REACH phase is under way. The deadline for substances with volumes of 1 - 100 t is May 31, 2018. At the same time registrants are confronted with an increasing number of draft decisions and additional requests from ECHA on dossier of phase 1 and phase 2 substances, currently focusing on identification and characterization as well as sameness of UVCB substances.

The possibility for late pre-registrations of substances listed in EINECS imported for the first time with 1 t/a to 100 t/a will end May 31, 2017.

RAC continued to assist the ETAD Secretariat in answering requests from ECHA and other agencies for information on substances of concern and their possible use in colorant synthesis.

In **Asia**, Korea proceeded with its K-REACH and has a list of 500 substances that shall be registered. In Taiwan a pre-registration period has started.

#### Canada

The Canadian authorities published during 2016 the results of their assessment of three subgroups of the Aromatic Azo and Benzidine-based Substances: azo solvent dyes, azo basic dyes and azo acid dyes. It was concluded that, except for Solvent Red 23 and Solvent Yellow 77 / Disperse Yellow 3, all dyes evaluated in these assessments do not meet any of the criteria set out in section 64 of CEPA 1999.

#### USA

On June 22, 2016 President Obama signed into law a bill to reform the Toxic Substances Control Act.

The new law includes much needed improvements:

- Mandatory requirement for EPA to evaluate existing chemicals with clear and enforceable deadlines;
- New risk-based safety standard;
- Increased public transparency for chemical information; and
- Consistent source of funding for EPA to carry out the responsibilities under the new law.

### Food contact materials (FCMs)

In 2016, some quite important developments with FCMs had a specific impact on colorants.

In the **EU**, the ongoing development of the German Printing Ink Ordinance (PIO) triggered the start of a EU-wide action on printed food packaging.

After the 5<sup>th</sup> draft of the Ordinance was notified to the European commission in July 2016, the regular TRIS process according to Directive (EU) 2015/1535 started, with the PIO being distributed to the European member states.

At this point of the process, however, the council of ministries recommended to the commission to propose a European regulation on printed food packaging. A six-month period started for the commission to come up with a proposal, whereas further development of the PIO was put on hold.

If the commission succeeds in preparing the proposal, middle of 2017 the normal legislative process implementing a European regulation should start. If this is not the case, the German legislative process will continue.

Pigment producers do not know how a possible new European regulation will look like. Main open points are the presence/ absence of a positive list of colorants, and the possible differentiation in the colorants' status as in the PIO.

For plastic materials, the European Plastic Implementation Measure (PIM) was amended for the 6<sup>th</sup> time through Regulation 201/1416. The main impact for colorants are some new limits: Aluminum as a new entry got a limit of 1 ppm and the limit for zinc was reduced from 25 ppm to 5 ppm. In **Switzerland**, the Swiss ordinance was updated at the end of 2016. Now in Annex 10 there is only one list for all allowed substances including colorants for printing inks coming into contact food. Former A and B types of colorants are now part of the current unified list. The legislation will come into force May 1, 2017.

In **China**, the regulatory process to update standard GB 9685 of substances used for Food Contact Materials was finalized at the end of 2016. The update is currently only available in Chinese, but it is known that there will be positive lists for additives used for all kinds of food contact materials. For food contact materials made mainly from plastics the chemicals that are allowed for Europe and the USA can be used.

In **Japan**, a committee working under the Ministry of Health, Labour and Welfare (MHLW) is considering a new regulatory framework for food contact materials, including a positive list system.

FCMs are currently regulated under a system based on a negative list, whereas systems in the EU, US and China are based on a positive list.

#### Nanomaterials

The RAC follows the development of different approaches to nanomaterials not only in Europe, but also in the rest of the world. At the moment, differences in definition, scope and requirements exist, and it important to clarify in each case whether and how colorants are affected.

In **Europe**, ECHA and the European Commission have come to an agreement to start observing Nanomaterials inside the EU. The first phase of the project will collect information starting in Quarter II 2017. In new single-state activities, **Belgium** will extend the list of nanosubstances to mixtures. The start was planned for January 1, 2017 but was postponed to January 1, 2018. It is expected that the additional workload for companies will be quite relevant.

Additionally, since summer 2016 the **Swiss Federal Public Health Office** (BAG) is revising its regulation for the notification of nanomaterials. The BAG will start with some revision elements in 2017 (called phase 1) including communication of all nanomaterials being on the Swiss market.

Outside Europe in 2016, **USA** together with **Canada** agreed on a rather pragmatic approach to the nano topic. Final rules for reporting nanoscale materials will be published by the Environmental Protection Agency (EPA) in early 2017.

# Guidance to the Code of Ethics

The ETAD Guidance Document is the crucial tool assisting member companies to comply with the Code of Ethics.

With new regulations released, the update of the document turned out to be a complex issue. Special reference had to be made to the publication of the New Toys Safety Directive 2009/48/EC, leading to an almost complete reformulation of the section relating to heavy metals.

The updated Guidance Document has meanwhile been released. However, the adaption of the revised Code of Ethics, approved during the General Assembly 2016, has already started and the corresponding new version of the Guidance will be distributed in 2017 upon review and approval from the RAC.

# 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 implemented 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. ETAD NA monitored developments and reviewed the State's Guideline for Alternative Analysis which contained 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. The initial three priority products identified for rulemaking, none of which contains aromatic azo dyes or aromatic amines, were under review in 2016:

- Children's foam-padded sleeping products (TDCPP, TCEP)
- Spray polyurethane foam systems with methylene diphenyl diisocyanates
- Paint stripper with methylene chloride

ETAD NA will continue to monitor developments as California proceeds with its work plan.

# Regulatory developments in Canada

Under Canada's Chemicals Management Plan, final screening assessments of the azo solvent dyes subcategory were published, finding that 20 of the 22 listed dyes did not meet the CEPA Section 64 criteria for toxic to human health of the environment. One of the dyes, Solvent Red 23, remains a health concern under CEPA 64, which could mean a risk management step will be proposed. The other dve. Solvent Yellow 77, was deferred to final screening in the azo disperse dyes subcategory. Final screening assessments of the azo acid dyes subcategory also were published, finding that none of the listed dyes were toxic under CEPA 64 but will be monitored for future exposure which may warrant risk assessment.

CMP Phase 3 was initiated in 2016 with a focus on anthraquinone dyes and related substances. ETAD NA provided information on nomenclature, uses, and, where available, biological properties.

The other issue of interest to ETAD NA was the update of the Domestic Substances List (i.e. Inventory Update) which was ongoing in 2016. A list of approximately 1500 substances was proposed for the 2017 inventory through Section 71 notices.

### ANSI Voluntary Sustainable Textiles Standard

There were no developments in 2016 under the Sustainable Textiles Standard that impacted ETAD NA members.

### Voluntary Product Environmental Profile (VPEP)

The Voluntary Product Environmental Profile (VPEP) continues to be used for providing health and safety data on chemicals supplied to the U.S. textile industry. It may be accessed online at https:// vpepexchange.com/. Representatives of TEXbase, the VPEP vendor, met with ETAD NA by conference call to update members on the status and benefits of VPEP, number of users and providers. and content of the database system for reporting chemical information. A system known as SciVeraLENS was introduced as an Internet-based tool that could help users comply with VPEP, ZDHC, and other RSL obligations.

#### Residual dyes in containers

A schematic of the test plan and compilation of data from customer facilities were completed for correcting unrealistic default assumptions used by EPA in its new chemicals program when considering the amount of residual dye remaining in empty containers. The results, which demonstrate actual residual concentrations well below EPA's default values of 1% for powder and 3% for liquid dyes, are being formatted for presentation to EPA.

### Coordination with CPMA

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

# 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. The SAC has updated its website, included a road map for the Higgs index of sustainability self-assessment, and is preparing a 2020 action plan.

### Manufacturers Restricted Substances Lists (RSLs)

ETAD NA supported the global ETAD efforts to collaborate with Zero Discharge of Hazardous Chemicals (ZDHC) in developing the Manufacturers Restricted Substances List and achieving recommended limits to impurities.

In a related development, representatives of some of the ETAD NA member companies attended the Fall Conference of VF Corporation. The conference was structured as a summit for chemical suppliers to help implement ChemIQ, the VF program for certifying the safety of products. ChemIQ entails four levels of certification: Red – banned, Yellow – acceptable but with concern, Green – preferred, and Orange – need for due diligence. VF plans to roll out this program with some of the big box retailers (e.g. Walmart) who sell their brands.

# Japanese Operating Committee (JOC)

The Japanese Operating Committee is formed by representatives of six ETAD companies based in Japan. From Tokyo we monitor the regulatory situation for pigments and dyes in Japan in active collaboration with authorities, and work in close communication with the ETAD office in Basel.

#### Information exchange between JDICA and the ETAD offices

JOC members usually coordinate their activities with JDICA (the Japan Dyestuff and Industrial Chemicals Association), which helps to join efforts on common issues and, especially in contact with the Japanese authorities, to present a harmonized opinion as well as feasible proposals for collaboration. On the other hand, JDICA members are also interested in updated information on ETAD's activities linked to developments worldwide that possibly affect Japan's external market.

This year, the usual JOC meeting with W. Hofherr, ETAD's Executive Director, took place in Tokyo in November 2016, and he combined it with a visit to the JDICA, where he gave a presentation on recent trends in eco/toxicological issues. He reported in particular about the ongoing development of the ZDHC group, progress in the analytical method for PAAs, nano issues in all the different country-specific variations, and ongoing development of the German Printing Inks Ordinance. W. Hofherr also informed JDICA of the recent update of ETAD's Code of Ethics with new requirements for dyes.

# Correction of entries in the METI inventory

During 2016, ETAD member companies had realized that some entries in the METI inventory needed corrections, since newly available analytical information had shown errors in previously accepted structures. ETAD Basel was able to provide the corresponding details to the Japanese authorities through the mediation of JDICA, and the needed corrections were successfully introduced in the inventory. METI also clarified to ETAD some details on its inventory structure, in particular regarding the use of references to C.I. names, C.I. numbers and CAS numbers as substance identifiers.

### PCBs monitoring

In 2016, the PCBs issue in Japan developed rapidly, starting with the publication in March of an official guidance document about "Handling of Chemical Substances Containing By-Product Class I Specified Chemical Substances".

As explained in detail in the guidance, every manufacturer or importer in Japan who deals with organic pigments has to check whether their products meet at least one of three conditions.

#### They are:

- Pigments that contain chlorine atoms in their chemical structure
- Pigments that use raw materials containing chlorine atoms
- Pigments that use chlorinated aromatic solvents in their synthetic process

In these cases, the manufacturer/importer must inform about the PCBs content, set the self-managed upper limit value with the corresponding management measures and inform the authorities. The report to the authorities, due for December 2016, also had to include the analytical method used (with a rationale for its validity) and the frequency of the PCBs measurements performed by the notifier. From 2018, also an annual report about the PCBs content is required. Some exceptions are foreseen, notably:

- if the self-managed upper limit value (or the upper limit value representing an in-house target for management) is set to 10 ppm or less, the annual reporting is unnecessary for the time being
- if the PCB content is equal or lower than 0.5ppm, the self-managed upper limit value or the upper limit value are not required as far as the manufacturing conditions are not changed.

The JOC members, collaborating with JDICA, compiled specific guidelines for pigments manufacturers/importers in order to assist them in the preparation of the report in 2016. These guidelines were also greatly appreciated by the Japanese authorities. In the official "Q&A for Handling of Chemical Substances Containing By-Product Class I Specified Chemical Substances", published in September 2016, it is recommended to refer to these guidelines and the English version of the analytical method included in them.

As an important point for notifiers, the Q&A clarify explicitly that hydrochloric acid, alkali metal chlorides and alkali earth metal chlorides are exempted from "raw materials containing chlorine atoms". This exemption reduces substantially the number of organic pigments to be reported.

All JOC members submitted the report successfully by the deadline, and will continue their collaboration within JDICA on the common project to prepare further guidelines dealing with the preparation of the announced PBCs annual report for 2018. The committee will also keep an open communication with the authorities and collaborate with them to find further feasible approaches to the PCBs management.

### Amendment of the Industrial Safety & Health Law (ISHL)

The JOC made its members aware of a colorant-relevant amendment to the ISHL. At the end of November 2016, the Japanese Ministry of Health, Labor and Welfare (MHLW) added ortho-toluidine to the list of special category of chemical substances, because of its suspected carcinogenity in the bladder.

As communicated by the JOC, starting from January 2017, companies whose production processes involve the use of ortho-toluidine must take specific measures to prevent health damage to their employees. In detail, companies are required to:

- Setup facilities to control the diffusion of the chemical substances
- Enforce the measurement of the working space environment
- Introduce special medical health check
- Appoint persons in charge for this work

The measurement of the working space environment, results of special medical health checks, and worker records will be saved for 30 years.

# Nanomaterials regulatory status

Japan continues to base its strategy for the control of nanomaterials on a non-regulatory approach. Instead, manufacturers received administrative guidance and introduced voluntary monitoring in order to guarantee worker and environmental safety.

At the same time, authorities continued the project "Development of Innovative Methodology for Safety Assessment of Industrial Nanomaterials", which was launched by the Ministry of Economy, Trade and Industry (METI) in 2011. As announced in 2015, after the conclusion of the project an update was expected in March 2016, including guidance notes, tentative standard protocols, and methodological guides. Even if the update is still pending, the results (in English), published in 2015, are available on the website of the National Institute of Advanced Industrial Science and Technology (AIST). The publications cover a broad range of studies aimed to provide suitable tools for the evaluation of the specific hazard of nanomaterials, their toxicity through inhalation and their toxicokinetics.

# Indian Operating Committee (IOC)

In 2016, the Indian Operating Committee (IOC) continued its activities as India enjoyed a high growth rate and became the country having the highest economy growth of the year. A number of government initiatives encouraged further investment as all key sectors experienced a positive year. The IOC also grew with new members coming in from Meghmani Dyes Ltd.

### Food contact materials

In the framework of the ongoing collaboration with the Bureau of Indian Standards (BIS) the IOC submitted consolidated comments from its members on the IS 9833. The standard, which regulates colorants for food contact, is coming to the final phase of its revision. After the current wide circulation is completed, it is expected to go into effect soon.

# Dyes and textile committee

In June 2016, the dyes intermediates sectional committee (PCD 26) had a meeting at the Institute of Chemical Technology in Mumbai to organize the revision of several standards from the BIS. As representatives of the IOC Dr. Desai, Dr. Rahman, Mr. Kulkarni and Mr. Sevak participated in various discussions on different standards for raw materials and intermediates. There are 75 such standards which require revision, and the IOC members have taken a lead for cases where they advocate alignment with existing international standards. This strategy is necessary in particular for companies which are active globally, since they need to standardize the quality of raw materials to be used in their production in order to meet the requirements of new regulations as well as the brands.

# Information exchange on general colorant issues

In its latest meeting, held in Vadodara, IOC members discussed the most recent local and global developments affecting the Indian colorant industry. First, the upcoming end of the third phase of REACH registration will have an important impact, as explained by the special guest, Dr. Rashmi Naidu, who reported in detail the REACH deadline of 2018 with all the implications and ramiificationsof the process.

An update on the international activities of ETAD was presented by Mr. Sevak, who provided a good insight into other issues which confront the colorant industry.

Mr. Kulkarni tackled the increasingly relevant topic of sustainable development in the dyes industry using his company, Jay Chemical, as a case study.

Finally Dr. Rahman and Dr. Desai gave an update of the GPCB meeting to discuss BAT and on the progress the Bureau of Indian Standard is making on the PCD 26, respectively (see sections above for details).

At the end of the meeting, Mr. Kapoor took the opportunity to encourage all members to continue their active work in the IOC and recommended that they participate in the General Assembly 2017 in Dublin.

#### Collaboration with the Gujarat Pollution Control Board

In 2016, the Gujarat Pollution Control Board (GPCB) signed an agreement with the German environmental protection agency UBA to develop a guidance document for formulating the Best Available Technique (BAT) and Reference Documents (BREF) along with their standards of quality assurance. The agreement foresees a transparent and practical exchange of information and data collection to be used as a basis for the preparation of the documents. Industry representatives were also invited to join the committee; the two IOC members Dr. Rahman (Atul) and Dr. Thakore (Heubach) participated in a specially organized 2-day meeting for this purpose.

# Information and external activities

#### Presentations and publications

Development of Regulations Worldwide Related to Colorants in 2016 Article for CDIA's Annual Report 2015, March 2016

PCBs – ETAD's perspective Presentation to CPMA, Washington, D.C., April 2016

**Overview of ETAD's activities on key issues in 2016** Presentation to JDICA, Tokyo, November 2016 Presentation to TDPIA, Taipei, November 2016

**Overview of ETAD's activities on pigment issues** Presentation to CPMA, New York City, December 2016

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

#### Other

Participation in the online radio show "Behind the Thread" Interview on the work with ZDHC, June 2016

**"ETAD sets tough new limits"** Article in "Ecotextile News", July 2016

#### External activities

During 2016, ETAD continued or started its activities in different projects with external groups and associations. These 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 inventory issues
- Input to the EU Commission project on CMRs in textiles
- Participation to the Revision of the German Printing Ink Ordinance
- Participation to the Global Recycled Standard review
- Participation on the NSF Joint Committee on Sustainable Textiles (USA)
- 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.

# Board

**President** Dr. Reiner Jahn BASF Colors & Effects Switzerland

Vice President Dr. Clemens Grund DyStar Colours Distribution GmbH

**Treasurer** Mr. Georg Roentgen Huntsman Textile Effects Dr. Stefan Ehrenberg BEZEMA AG

Mr. Peter Krummeck Sun Chemical A/S

Mr. Ravi Kapoor Heubach Colour Pvt. Ltd.

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

Ms. Carole Mislin Archroma Management GmbH

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

Dr. Rüdiger Walz Clariant Produkte (Deutschland) GmbH

### ETAD staff

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Dr. Walther Hofherr Executive Director

Dr. Pierfrancesco Fois Deputy Executive Director

Ms. Heidi Hofherr Project Manager

Dr. Gecheng Xie Senior Consultant

#### Washington

Dr. C. Tucker Helmes Executive Director of ETAD North America **Legal Counsel** Dr. Hans-Rudolf Uebersax Legal Counsel of ETAD International

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

#### **Trustee and accounting**

Mr. Reto Hubli Fidares Treuhand

Ms. Marianne Flückiger Fidares Treuhand

### Committees composition

#### (status March 2017)

#### **Dyes Operating Committee**

Mr. Mark Dohmen Dr. Thomas Otten Dr. Sibel Kılıç Mr. Richard Lee Ms. Jana Minarikova Ms. Carole Mislin Dr. Elena Schramm Dr. Mehmet Şener Dr. Anette Weber M. Dohmen GmbH Huntsman Textile Effects Setaş Kimya Sanayi A.Ş. European OGD Ltd. Synthesia a.s. Archroma Management GmbH BEZEMA AG Setaş Kimya Sanayi A.Ş. DyStar Colours Distribution GmbH

#### **Regulatory Affairs Committee**

Dr. Margret Jobelius-KorteTFL Leather Technology Ltd.Dr. Friedrich-Wilhelm RaulfsBASF Colors & Effects GmbHDr. José Juan RegañoArchroma Management GmbHDr. Erich SchultzDyStar Colours Distribution GmbHMr. Emmanuel FausterHuntsman Textile EffectsDr. Helga van WykBASF Colors & Effects SwitzerlandDr. Detlev WormsbächerClariant Produkte<br/>(Deutschland) GmbH

#### **Pigments Operating Committee**

- Dr. Karin Beck Dr. Annick D'hulst Ms. Daniela Finkenauer Mr. Ivan Grønning Mr. Susumu Isoda
- Dr. Klaus Kund

Ms. Jana Minarikova Dr. Robert Mott Mr. Yorikatsu Otsuki

Ms. Marianne Peltier Ms. Marine Ribert

Mr. J. I. Sevak Mr. Kikuo Tsuchiya Dr. Ulrich Veith Mr. Daniel Ymbernon

#### **Indian Operating Committee**

Dr. Pankaj Desai Dr. Sunil Deval Mr. Ravi Kapoor Mr. P. S. Kulkarni Mr. Samir Mehta Dr. Mujeeb-ur Rahman Dr. Siva Rama Kumar Pariti Dr. Rajesh Ramamurthy Mr. H. M. Thombare Sensient Cosmetic Technologies Toyo Ink Europe Speciality Chemicals Heubach Colour Pvt. Ltd. DIC Corporation BASF Colors & Effects Switzerland Daicolorchem EU, S.A. **ee** Colourtex Industries Pvt. Ltd. Clariant Chemicals (India) Ltd. Heubach Colour Pvt. Ltd. Jay Chemical Industries Ltd. Meghmani Dyes Ltd. Atul Ltd. Dystar India Pvt. Ltd. Archroma India Pvt Ltd.

Sudarshan Chemicals India Ltd.

**BASF Colors & Effects GmbH** 

Dainichiseika Color & Chemicals

Dainichiseika Color & Chemicals

Cappelle Pigments n.v.

Heubach GmbH Sun Chemical A/S

Mfg. Co., Ltd.

Synthesia a.s.

Mfg. Co., Ltd.

Clariant Produkte (Deutschland) GmbH

Sun Chemical Corp.

#### **ETAD North America**

Ms. Melissa Albritton Dr. Shelly P. Bravard Mr. Steve Camenisch Mr. Chien-Ming Chen Mr. Scott Chen Mr. Joe DaSilva Mr. Marvin Davis Mr. Marvin Davis Mr. Mark Ellsworth Ms. Sue Ann McAvoy Mr. Jeff Morris Mr. Dwight J. Pakan Ms. Trenise Stukes Mr. Pat Tilli Mr. Dustin Woolford

Mr. I

Mr. Mr.

Mr.

Mr.

Mr.

Dr. Y

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#### Sensient Industrial Colors Huntsman Corporation BASF Corporation Everlight USA, Inc. Everlight USA, Inc. DyStar Everlight USA, Inc. Sensient Industrial Colors Sensient Colors Inc. BASF Corporation Archroma U.S., Inc. Clariant (Canada) Corp. Archroma U.S., Inc.

#### **Japanese Operating Committee**

Kentaro Aida	Dainichiseika Color &
	Chemicals Mfg. Co., Ltd.
'asuyuki Ayukawa	Toyocolor Co., Ltd.
oshifumi Hori	Dainichiseika Color &
	Chemicals Mfg. Co., Ltd.
Kazuhisa lwasa	BASF Japan Ltd.
Osamu Kawakita	<b>Clariant Plastics &amp; Coatings</b>
	(Japan) K.K.
Naoki Koide	Dainichiseika Color &
	Chemicals Mfg. Co., Ltd.
oshitaka Koshiro	Dainichiseika Color &
	Chemicals Mfg. Co., Ltd.
asumasa Matsumoto	Heubach Japan K.K.
Aasayuki Nakano	Dainichiseika Color &
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(iichi Ohkawa	BASF Japan Ltd.
′orikatzu Otsuki	Dainichiseika Color &
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Makoto Sakamoto	Toyocolor Co., Ltd.
Kikuo Tsuchiya	DIC Corporation
lisashi Uraki	Toyocolor Co., Ltd.
vanese Operating Cor	nmitte (TOC)

#### Mr. Chris Chen Everlight Chem. Industrial Corp. Ms. Hikari Chiu Oriental Giant Dyes & Chemical Ind. Corporation Ms. Amy Huang Everlight Chem. Industrial

Mr. Chin-Yu Huang Mr. Ming-Yih Lin Mr. Tong-Han Tsai Mr. C.D. Yang Oriental Giant Dyes & Chemical Ind. Corporation Everlight Chem. Industrial Corp. T&T Industries Corporation T&T Industries Corporation Chroma Chemical Corp. Oriental Giant Dyes & Chemical Ind. Corporation

# 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 recognise 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 wellfounded 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 colorants.

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 appropriate information content and that it is supplied to all customers.

#### 3.2. Labeling

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

Where the laws of the country the products are sold to, require more stringent or mandate different labelling, the members shall adhere to such required or mandated labelling. In countries with less stringent requirements the labelling 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 Programs

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 dyes

The manufacture and sale of dyes, which:

- are identified as hazardous by regulation or classification by expert bodies or
- contain certain hazardous impurities above specific limits

is incompatible with ETAD membership. These dyes are referred to in Annexes A and B.

### 5. UN Global Compact

Member companies shall also embrace, support and enact, within their sphere of influence, core values in the areas of human rights, labour standards, the environment and anticorruption, as laid down in the UN Global Compact. Members have to register as a member of the UN Global Compact, or issuing an own binding Code of Conduct, embracing as a minimum the standards and values of the UN Global Compact.

### 6. Compliance

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

#### Annex A

Dyes or preparations of dyes used in textile and leather articles, which may come into direct and prolonged contact with the human skin or oral cavity.

#### These dyes:

- contain, or release by reductive cleavage of azo bonds to any of the specified amines\*.
- · contain any of the specified organic impurities\*
- contain any of the specified trace metals\*

#### Annex B

Individual Dyestuffs\*

<sup>\*</sup> 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

### Internationality

We provide a forum in which the colorant industry worldwide can sit together and address common issues on toxicological and environmental matters.

### Recognition

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

### Representation

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

#### Harmonization

We advocate, where regulations are necessary, a harmonization of the requirements, so that compliance costs are reduced.

### Code of Ethics

We encourage members to adhere worldwide to a high ethical standard and promote the image of a responsible and safetyminded manufacturing industry.

### Guidance

We provide guidance to ETAD member companies on interpretation of new regulatory requirements and recommend specific measures to implement the ETAD Code of Ethics.

### Education and training

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

### Research and testing

We organize research and testing programs aimed at a better understanding of the health and environmental aspects of dyes and organic pigments.

#### Information

We respond to inquiries about the colorants' industry, provide information on topical issues and disseminate comments and position papers.

### Database

We maintain and make available to members a computerised database of literature pertaining to the health and environmental aspects of dyes.

# ETAD member companies

(status March 2017)

Archroma Management GmbH Switzerland

ATUL Limited India

BASF Colors & Effects GmbH Germany

**BEZEMA AG** Switzerland

Cappelle Pigments n.v. Belgium

**Chroma Chemical Corp.** Taiwan, R.O.C.

CINIC Chemicals Co. Ltd. China

Clariant International AG Switzerland

Colourtex Industries Ltd. India

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

Hubei Color Root Technology Co., Ltd. China

Huntsman Textile Effects Switzerland

**Hwa-Tai Industry Co., Ltd.** (associate member) Thailand

Jay Chemical Industries Ltd. India M. Dohmen GmbH Germany

Matex International Limited Singapore

Meghmani Dyes and Intermediates Ltd. India

**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

Thai Ambica Chemicals Co., Ltd. Thailand

**Toyocolor Co., Ltd.** Japan

Yorkshire Chemicals Ltd. China

Current list of members under: www.etad.com

### Working Together for Safer Colorants

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The Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers