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ANNUAL REPORT



Ecological and Toxicological
Association of Dyes and Organic
Pigments Manufacturers

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51ST GENERAL ASSEMBLY

The 51st Ordinary General Assembly of ETAD was held on 8 May 2025. Out of the 25 member companies, 16 were present or represented by proxy, with 55 of the total 68 votes (81%) cast. The President Dr. U. Veith welcomed the attendees and gave an introductory speech, addressing the increasing global regulatory pressure, with new US initiatives and various REACH activities. The President also reminded that ETAD can only continue its activities smoothly when the membership fees are paid timely, and this has become a bigger issue in recent years; he invited the companies to be aware of their duty in this respect.

The minutes from the 50th Ordinary General Assembly 2024 were approved unanimously. The Annual Report for 2024 was presented and adopted.

Dr. P. Fois presented the 2024 and 2025 focus to the ETAD Assembly. Communication and collaboration with stakeholders continued, including joint advocacy and strong monitoring of global regulatory developments. ETAD also carried on its internal analytical projects on dyes and pigments, which are progressing to their conclusion.

Dr. E. Schramm presented the financial report for 2024, which revealed a total income of SFr. 545,000 and total expenditure of SFr. 860,000, resulting in a loss of SFr. 319,000. The financial report was approved, as well as the proposal of confirming BDO as auditor for ETAD's accounts for the financial year 2025.

The General Assembly granted the Board release for 2024 and unanimously elected the new Board for 2024/2025, including Dr. U. Veith as President and Mr. M. Dohmen as Vice President.

Dr. E. Schramm presented the Board proposal for the Budget 2025. Lower income from membership fees was budgeted, based on the changes in the membership compositions. As an extraordinary income, ETAD received several late fees from the year 2024. The budget foresees a total profit of SFr. 37,000. The budget 2025 was approved unanimously.

Dr. Fois concluded the meeting by thanking the whole Board for the support in the current challenging times; he also thanked Dr. G. Xie, who retired in 2025, for the many years of work for the association. Dr. G. Xie expressed his gratitude to the collaborative and competent expert groups at ETAD and wished the association well.

In his closing remarks, Dr. Veith announced that the next General Assembly would take place in Strasbourg, France on 7 - 8 May 2026.

ETAD BOARD 2025/2026

Dr. Ulrich Veith (Sun Chemical)	President
Mr. Mark Dohmen (Archroma)	Vice President
Dr. Elena Schramm (CHT)	Treasurer
Dr. Taiyo Aoyagi (Dainichiseika)	
Dr. Klaus Kund (Sudarshan)	
Mr. Richard Lee (OGD)	
Dr. Mehmet Şener (Setaş)	
Mr. Josef Wieland (CINIC)	

MEMBERSHIP

Farbchemie Braun GmbH & Co. KG, Hubei Color Root Technology Co., Ltd. and Jay Chemical Ind. Private Ltd left ETAD effective per end of 2025. As a result, the total number of member companies was 24 by the end of the year.

FINANCES

ETAD is a non-profit association whose operating expenses are primarily covered through contributions from its members. In 2025, total income was SFr. 855,000 compared with total expenditure of SFr. 727,000, resulting in a profit of SFr. 128,000.

PROJECTS

ETAD METHOD 212: MOVING TOWARDS ISO STANDARDIZATION

ETAD is in the process of adopting its Method 212 for the identification and quantification of PAAs in organic pigments as an ISO method. The method advanced beyond the Proposal Stage, with sufficient votes received from international ISO p-members for approval. The ISO committee formed a working group (WG) to lead the development of the Working Draft (WD), with the objective to consolidate technical discussion. The method is being fine-tuned, particularly regarding some wording issues as well as the revision of tables and annexes.

ADVANCING PCP METHOD DEVELOPMENT

ETAD's Analytical Experts worked on the development of an analytical method for the detection of pentachlorophenol (PCPs) in organic pigments.

Following the analytical team evaluation of the Round Robin Test results, H₂SO₄ extraction was selected as the preferred method. This was determined to be the most suitable option based on data and procurement constraints. Discussions were also ongoing regarding the appropriate sulfuric acid concentration for dissolving pigments for testing.

Furthermore, alternative acetylation reagents were discussed, with options evaluated for their suitability as well as their regulatory status.

PROJECTS WITH THE GERMAN INSTITUTE FOR RISK ASSESSMENT (GERMAN BFR)

Non-Regulated Amines as Possible Cleavage Products from Azo Dyes

In 2025, there were no new relevant activity from BfR regarding the toxicological data for dyes in the 10–100 t/y and 1–10 t/y volume ranges. ETAD is waiting for the publication of the colorants inventory prepared by BfR and by the Swiss BLV as part of this project.

As the project highlighted the importance of new Comet Assay results for dye classification, ETAD also continued its communication with Kahlberg Consulting on the development of a specialized dye database as a foundation for an alternative genotoxicity assessment model.

The project aims to challenge the REACH interpretation of positive Ames test results from in vitro genotoxicity screening of dyes. A key preliminary finding is that positive Ames test results are often not confirmed by further in vitro mammalian tests or in vivo studies.

Dye Migration from Dyed Textiles

At the beginning of 2025, BfR completed the evaluation of their results on textile dyes and dyed samples, obtained through a specifically developed method; this data was used to create a migration model.

During 2025, ETAD continued supplying additional data on dyes and textile samples to refine the model and interpretation of results, including dye purity, coloured organic content,

fixation rates, and technical details on reactive dye printing techniques, while BfR carried on analysis of garments from the market. The aim of this analysis was, on the one hand, to test the analytical method on real samples and, on the other hand, to check the migration model developed on the basis of the samples prepared by the chemical companies.

During the 9th Meeting of the "Textiles and Leather" Committee of the BfR Commission for Consumer Goods held on 4 November 2025, the BfR team presented the main outcome of their work on the project. Especially important conclusions were that the model developed by the BfR is in accordance with the observed results from market and that the migration in commercial samples was generally observed at very low levels.

DEVELOPMENT OF A PROCEDURE FOR QUANTIFICATION OF FREE CO(II) IN COBALT COMPLEX DYES

A feasibility study on an alternative technique for the direct measurement of Co(II)-contaminated complex dye powder samples was completed. The results were evaluated by the Dyes Operations Committee, which concluded that a combination of several analytical techniques represents the most promising approach to pursue over the next few months. The project will be supported by an academic partner.

DEVELOPMENT OF ETAD METHOD 231: DETERMINATION OF CR(VI) TRACES IN WATER-SOLUBLE AND WATER-INSOLUBLE DYES

All experiments related to the method validation were completed and the results reviewed by the Dyes Operations Committee. Finalization of the draft and preparation of the internal announcement to member companies will follow.

PRODUCT CARBON FOOTPRINT (PCF) OF DYES

In 2025, ETAD started a discussion on the possibility to refine the current information on the PCF of dyes, because of the legal obligations to report on PCF of chemicals used in articles in the framework, e.g., of the ESPR in the EU. The availability of data for dyes is very limited, with no complete reliable PCF data for finished dyes available. A first realistic aim for a more precise reference for dyes could be, e.g., a definition of specific value ranges for dyes classes which the companies can share with confidence with their customers.

ETAD started a corresponding project and will collect available data from all possible sources. Particularly important will be information on the intermediates used by the colorant industry, which is considered the most difficult to obtain.

ACTIVITIES

GERMAN DRINKING WATER ORDINANCE

The revision to Germany's Drinking Water Ordinance published in 2024 initially included the new requirement of listing and providing information on colorants classified as nanomaterials.

Detailed discussions with the German Environment Agency (UBA) took place, during which ETAD and Eurocolour clarified that pigments do not release nanoparticles posing health risks and that their classification as nanomaterials under REACH does not imply any hazard.

UBA first accepted the scientific arguments presented by the associations and agreed to remove the nano status reference from the ordinance, but the requirement resurfaced again in a newest draft in 2025.

The discussion continued throughout 2025 without any final decision being reached.

ECHA OPT-OUT DISCUSSION

The activities against the misuse of the opt-out option in the registration of REACH dossiers continued in 2025. It was reported by affected ETAD members that an increasing number of companies submitted dossiers through this method before inquiring about study costs,

relying heavily on open data or reduced information requirements.

Along with regular registrations, in at least one case, the opt-out was used even to avoid paying just the administrative costs for an «old» substance. Additionally, for 4 other dyes the opt-out option was proposed by a company acting as OR to the colorant manufacturer, but was not accepted upon ETAD's advice.

Theoretically, ECHA should immediately perform a compliance check on opt-out dossiers, but they are lagging behind. Through Eurocolour ETAD has tried to increase ECHA's and national authorities' awareness to recognise and act against this misuse, with no tangible results yet. This advocacy work will continue in 2026.

PROPOSED PCB LIMIT AMENDMENTS

The revised draft of the amendment to the EU POPs regulation, presented at the EU Competent Authorities on POPs in 2024 set a PCB limit of 25 ppm for organic pigments and dyes. After three years, this limit will be further reduced to 10 ppm.

The draft proceeded through the regulatory process, and the public consultation in 2025 revealed concerns from other stakeholder groups on the extremely low limits proposed for these impurities. Due to this unexpected feedback in the final part of the process, the authorities were not able to proceed at the foreseen pace. ETAD will continue to follow the developments; however, it seems clear that the already agreed limits for colorants are not going to be object of further discussion.

“HIGH DEGREE OF PURITY” FOR COLORANTS USED IN FCM

During 2025, ETAD received several inquiries from member companies and their customers regarding the interpretation of the “high degree of purity” criterion for colorants in regulation EU 2025/351. This criterion must be interpreted correctly in the framework of the existing responsibility in the value chain; in particular, compliance of the final product remains with the article manufacturer, while chemical manufacturers are only responsible for the products they put on the market and on the completeness and correctness of the information they provide.

Until now, ETAD has answered queries by recommending that communication on pigments specifications for plastic applications should be a direct exchange among

manufacturers and their customers, who each have part of the knowledge needed to decide whether the final article will be compliant with the applicable requirements. The possibility of a more official guidance for all member companies will be discussed in 2026.

ASSESSMENTS OF REGULATORY NEEDS FOR DIKETOPYRROLOPYRROLES

On 17 December 2025, ECHA published an ARN (Assessment of Regulatory Needs) report on the substances group of diketopyrrolopyrroles (DPPs), listing several organic pigments. The key endpoint for all the substances listed in the report is their possible status as vPvM or vPvB. However, data generation and evaluation as regards potential vPvM or vPvB properties must be concluded before regulatory needs could be assessed.

The ARN report included an entry on C.I. Pigment Red 254 (EC 401-540-3) commenting that the study using ETAD's method for solubility in water and octanol had reliability issues.

Since the ETAD method has been broadly used for REACH-registered pigments, it is important to understand the reasons for the comment on reliability. Possible actions will be discussed by the POC members in their spring meeting 2026.

DYES AS POTENTIAL vPvM/PMT SUBSTANCES

Past discussions on the vPvM/PMT hazard classes led to the conclusion that available data on dyes cannot exclude “vP”; thus, it seemed to be more feasible to gain more data on the M/vM assessment. Experimental data based on OECD 121 or OECD 106 are limited, and a clear gap exists for ionisable organic colourants (such as multi-sulfonated reactive dyes), partly due to the inapplicability of the methods when testing these substances. In 2025, first internal experiments using OECD 106 were performed with a sulforeactive dye (containing a flurotriazine group) to check the influence of the dye concentration and the adsorption time. In order to look for a trend, more testing results on further dyes will be needed. Additionally, ETAD started an exchange with Kahlberg Consulting, which is looking for a possible grouping approach for the mobility/ persistence assessment.

NEW DISCUSSION ON ANILINE IN THE US

In January 2025, the US EPA began the risk evaluation process for aniline, estimated to be completed in December 2027. Colorants were

mentioned as applications relevant for this substance. The scoping document as well as the risk evaluation are not yet available.

ETAD is in constant communication with CPMA, which is collecting data from its members regarding conditions of use, exposure data, information on production/import volumes and will prepare comments on the scoping document as well as on risk evaluation, as soon as available. At the same time, ETAD contacted the US Aniline Consortium and agreed on an exchange of information as preparatory work for the comment phase.

NON-PFAS FLUORINE SOURCES IN CHEMICALS – APPROACH TO REACTIVE DYES

During 2025, ETAD continued monitoring and communication on non-PFAS fluorine containing reactive dyes. The general approach is to accept these reactive dyes, provided that their manufacturers mention the presence of fluorine in the products. This is particularly important in case fluorine screening on chemical products is performed.

A related issue which received particular attention from ETAD is the use of total fluorine analysis as only method for the determination of PFAS on final articles.

Since the introduction of the broader PFAS definitions worldwide, ETAD started to collect data on possible high fluorine findings in articles which could be traced back to the presence of reactive dyes. Member companies, certifiers and brands regularly updated ETAD on their results and always confirmed that no such cases were found. This supports the expectation that F-containing reactive dyes will lose their fluorine atoms during the application process. ETAD will continue its monitoring, since more analytical results are expected to become available, which will improve the current data set.

ZDHC ACTIVITIES

MRSLS Council and MRSLS 4.0

The MRSLS Council's activities in 2025 focused on the update of the MRSLS 4.0. In the Council, ETAD provided the input of its member companies as regards all substances proposed for restriction which are relevant for colorant formulations, covering possible limits and appropriate detection methods.

In parallel, ETAD coordinated as part of the administrator group the Chemical Supplier Advisory Group's experts in the mirror MRSLS 4.0 group, which helped to prepare the industry

recommendations for the different substances proposed for limits updates or inclusion in the MRSLS 4.0.

Some important topics discussed by the MC are the right approach to the formaldehyde and the PFAS testing as well as the limits for chlorobenzenes/chlorotoluenes, which required extensive input from the chemical and colorant industry. The MRSLS 4.0 is expected to be completed in June 2026.

Chemicals to Zero - Progressive Level

The aim of this approach is to assess potential risks for RSL compliance from an MRSLS conformant formulation (as far as possible).

In 2025, the Technical Experts Team (TET) established by ZDHC with representatives from the approved certifiers worked on the development of baseline requirements for the CtZ-P certification. Inditex The List and the AFIRM RSL were used for preparing the RSL compliance risk evaluation for CtZ-P, with the draft proposal to be discussed across all ZDHC advisory groups. The chemical industry representatives emphasized the need for their early involvement to prevent unnecessary discussions and workload later, but they were presented with an already completed first set of document drafts. They were subjected to review from experts which communicated their feedback, including a strong concern for the additional testing on textile/leather substrates expected from the chemical industry for certain substances. Additionally, the chemical experts required more details on the data proving the need for supplementary testing for those substances.

The consolidated chemical industry's feedback was provided at the end of the year; corresponding discussions will continue in 2026.

ZDHC's Watchlist

In 2025, ETAD was active in a specific ZDHC group compiling the so-called Watchlist, based on the Substances of Concern mentioned in EU pieces of legislation. The Watchlist focusses on textile/apparel applications and its creation was decided upon pressure from brands due to their reporting obligations under CSRD in EU. Chemical companies provided their expertise as far as possible, since many points regarding SoC were still open in the relevant legislations, and any corresponding list is, therefore, of debatable value. The list was expected to be published beginning of 2026.

INDITEX

In the newest version of The List, Inditex decided to change the existing product classification, with some specific cases reclassify as "A" but with an added warning sign "!", to alert facilities to take additional precautions and ensure RSL compliance. Therefore, the presence of a "warning" does not mean that the product is prohibited, these products can be used, but it should be managed with caution. The cases warranting a "warning" are diarylide pigments, metal complex dyestuffs and missing lots. The latest case is especially critical, since, the product will be "brandmarked" as a possible danger, even if there is no scientific background for it. For some products, it is not possible, for logistical reasons, to provide 3 different batches as required.

ETAD contacted Inditex to explain this difficulty and the topic was also submitted to ZDHC, since the «missing lots» exclusion criteria was also included in the proposal for the CtZ-Progressive level.

The discussion will continue in 2026.

OEKO TEX

Since 2025, Oeko Tex stopped considering false positives for aniline (free or as a reductive cleavage product) for some acid and reactive dyes submitted to the Eco Passport certification. Affected are dyes with pyrazolone and acetoacetanilide as coupling components, and the issue is particularly relevant for companies in Asian countries, where the Eco Passport is gaining importance.

ETAD contacted Oeko Tex and presented in detail the scientific background showing how the release of aniline for these dyes is due to side reactions independent from the azo cleavage, thus not correlated to a potential genotoxic effect. Oeko Tex communicated that they would consider this information and come back to ETAD.

A parallel discussion took place as regards DMFu limits in ECO Passport: ETAD companies reported that the limit of 0.1 ppm for this impurity was quite difficult to comply with for some disperse dyes for dark shades. Additionally, it could be shown that final articles dyed with these products show no DMFu detection even at the maximum dye bath concentration.

In October 2025, following this information exchange, the limit for DMFu was increased to 1 ppm.

In 2025, ETAD approached Oeko Tex also on the results of its consultation from 2024, which showed the intention to rely on a total fluorine method for the PFAS detection in chemical formulations. ETAD met with Oeko Tex to discuss the negative impact of this approach on non-hazardous, market-relevant products, in particular some reactive dyes. After several exchanges, Oeko Tex decided to accept ETAD's proposal that colorant manufacturers provide proof that their substances are not PFAS, in line with EU regulations. This information will be considered as basis for an exception in case of failures by the total fluorine analysis.

GOTS

During 2025, ETAD worked on GOTS v.8 as a member of the GOTS Standard Revision Committee. All comments concerning colorants prepared with the input of member companies were accepted in the final version. GOTS also required additional feedback from the chemical experts on the testing of indigo for aniline, the change of the term "AOX" for inputs, and the clarification of the goal of fluorine screening; ETAD's feedback was integrated in the final draft of the standard, expected to be finalised in January 2026.

VF RSL 2025

In VF's RSL 2025, Disperse Violet 93, Disperse Blue 291 and Disperse Yellow 64 are listed as substances to be reported, based on their inclusion in the list of sensitizers in the corresponding EU restriction proposal. However, an ETAD company reported that one of its customers had been asking for a substitute of Disperse Violet 93, excluding the Cl-analogue. ETAD clarified with VF that there is no plan to restrict the colorant or any of its "variants" from VF's side; they are following the development of the legislation. When VF receives information on the presence of the colorant, this is not considered a failure. They will approach the manufacturer and ask whether, in future production, the colorant could be substituted. All this information was forwarded to the ETAD companies as reference for their communication with customers.

PUBLICATIONS & INFORMATION

“ETAD’s General Comments to JRC’s survey on Substances of Concern (SoCs)”

Submitted in March 2025

ETAD comments on the report “Review of the potential for release of nanoparticles from products and articles with embedded nanomaterials and the possible toxicity of the released nanoparticles”

Published in January 2025

ETAD “Response to Draft Regulation on Persistent Organic Pollutants (POPs) – New Limits for PCB under Regulation (EU) 2019/1021 on Persistent Organic Pollutants”

Submitted in March 2025

Letter to the Canadian Government on Bill No. 34 - Forever Chemicals Prohibition Act

Submitted in June 2025 as co-signatory in an industrial associations’ group

“ETAD Information Notice on fluorine-containing reactive dyes (Update 2025)”

Published in June 2025

“Joint position paper avoiding overregulation: A pragmatic approach to Substances of Concern (SoCs) in the Ecodesign for Sustainable Products Regulation (ESPR) Delegated Act (DA) for Textiles”

Submitted in June 2025 as co-signatory in an industrial associations’ group

“ETAD Information Notice on fluorine-containing reactive dyes in the framework of the US regulation”

Published in June 2025

“ETAD’s comments on DEC’s plans for PFAS restriction limits and regulatory definitions”

Submitted in September 2025

NEW ETAD RAC WEBINAR

In 2025, ETAD started a new RAC webinar series open for all ETAD members, which focuses on regulatory topics worldwide, including ECHA activities, REACH(-like) developments, and related updates. The webinars are held quarterly and are designed to provide targeted and up-to-date information.

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