

CESIO

news

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EUROPEAN COMMITTEE OF SURFACTANTS AND THEIR ORGANIC INTERMEDIATES



MARCH 2003

Revision of EU Detergents legislation

In September 2001, AISE and CESIO replied to DG Enterprise's Public Consultation on the draft Detergents Regulation. Particular aspects of concern included the time allowed for manufacturers to phase out products containing surfactants no longer permitted under the regulation and the requirements of Annex IV. Suggestions for changes to Annex IV were offered, to facilitate a step-wise and proportionate approach.

The overall responses to the Public Consultation exercise were finally published by DG Enterprise. Four subjects of potential concern were identified:

- "Pass" level for the biodegradability tests
- Removal of surfactants in waste water treatment works
- Implied effect of surfactants on coastal vegetation
- Derogation proposals.

Industry papers have been written to address these subjects.

After Inter-Service Consultation in the EU Commission during January 2002, Industry was invited by DG Enterprise to provide further justification for the proposed 60 % biodegradability pass level. ERASM developed a detailed technical paper with Annexes, which was shared with DG Enterprise, and a number of less technical supporting documents addressing biodegradation issues.

The final Commission Proposal for a Regulation of the European Parliament and Council on Detergents was published in September 2002. The main concerns of AISE and CESIO were summarised and submitted as key messages in various discussion with authorities:

- Request of a stepwise approach in the derogation procedure
- Need for a clear definition of "health care professionals"
- Introduction of limits for labelling of known perfume sensitisers
- Appropriate dosage recommendations

It was noted that the conditions for obtaining a derogation (Annex IV) remain unchanged from July 2001. An alternative, detailed proposal for Annex IV has been prepared within ERASM, based on the document sent to DG Enterprise in September 2001, together with two supporting papers explaining the need for derogation; for technical and non-technical readers.

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The Italian MEP Mauro Nobilia has been nominated as the European Parliament Rapporteur of the Committee on the Environment, Public Health and Consumer Policy for the Detergents Regulation. "Shadow" rapporteurs are Alexander de Roo (NL); Guido Sacconi (I); Karl-Heinz Florenz (D) and Chris Davies (UK). The first report to the European Parliament Environment Committee was due to be completed by the Rapporteur by 24 January 2003 for translation and discussion on 19-20 February. Amendments were received by 4 March for voting in the Environment Committee 24-25 March. The first Parliamentary Reading is due 8-9 April.

On February the 5th 2003, a public hearing took place in Brussels organised by MEP Karl-Heinz Florenz. Together with many other stakeholders, CESIO had the opportunity for a 5-minute presentation; which was well received.

The E.P. Environment Committee members have introduced 100 amendments to the Commission proposal for a Detergent Regulation.

These amendments have been reviewed by the rapporteur and shadow rapporteurs with an attempt to getting compromised or consolidated amendments for votation at the E.P. Environment session of 24-25 March 2003. The latter adopted the 8 compromised amendments and the vote which covered the other amendments finally reflects for most of them the Industry position.

It has to be expected that the member states will also add their own ideas and the outcome will be a compromise put together by the Commission. Therefore, it is reasonable to further contact responsible politicians and explain to them the position of the surfactant industry.

Anaerobic Biodegradability

Surfactants first came under scrutiny by authorities due to foaming on rivers in the 1950s and 60s. Multiple branched alkylbenzene sulphonates, which are not rapidly and completely biodegradable, were implicated. As surfactants are typically discharged into the environment through sewage treatment plants or directly to the aquatic environment in situations where no treatment systems are available, surfactants have remained the subject of attention due to a combination of their inherent environmental properties and their large production volume.

To address the issue of biodegradability under critical conditions, in 1999 the AISE/CESIO industry task force "Anaerobic Biodegradability" published a review on the degradability and fate of current commercial surfactants under anaerobic circumstances. The conclusion of this detailed report was that there is no scientific evidence of any negative environmental impact of nonanaerobically biodegradable surfactants. According to the Commission the anaerobic biodegradation might still be seen as a relevant issue even if it is generally accepted that it is not a priority concern as surfactants are normally first degraded under aerobic conditions. To equip European decision makers with a scientific basis that enables them to take political decisions, which are based on environmental grounds, on January 1, 2001, the Commission awarded a study on the relevance of the anaerobic biodegradability of detergent surfactants. The study should determine and analyse possible effects on the environment caused by the likely incomplete biodegradation of surfactants under anaerobic conditions. The scope of the study should cover the fifteen Member States of the European Union as well as the three Accession Countries: Poland, Hungary and the Czech Republic.

The study was assigned to the Fraunhofer institute UMSICHT at Oberhausen, Germany. The Fraunhofer institute conducted an intensive literature review on the anaerobic biodegradability, reaching a similar conclusion on this issue as the ERASM report. The Fraunhofer report recommends establishing a stepwise procedure for testing the surfactants biodegradability.

If a surfactant fulfils the requirements of ultimate and ready aerobic biodegradability, then it will be degraded rapidly in any aerobic environmental compartment and will not cause environmental problems. In this case the additional requirement of ultimate biodegradability under anaerobic conditions is not deemed to be necessary. In natural anaerobic environmental compartments no enrichment of those surfactants has been observed which are readily degradable under aerobic but not degradable under anaerobic conditions (e.g. LAS).

If a surfactant does not meet the requirements of ultimate and ready aerobic biodegradability, further aerobic tests should be required like tests for inherent biodegradability or wastewater treatment simulation tests. In that specific case only, the additional testing of the ultimate anaerobic biodegradability is recommended by the Fraunhofer institute.

As an appropriate test method the Fraunhofer report recommends a modified ISO 14853 test, in which the biogas production as a parameter of ultimate biodegradation is the most important parameter to evaluate the anaerobic biodegradability. A threshold value of 60 % is deemed to be sufficient for claiming that the surfactant is anaerobically biodegradable.

The report further proposes the need to improve wastewater treatment plants in the EU (e.g. inclusion of an aerobic sludge treatment) and to extend the connection rate of household and industrial consumers to wastewater treatment plants as well.

The Fraunhofer report also addresses the biodegradability criteria applied in the ecolabelling procedure. According to the present EU criteria for ecolabelling, surfactants are discriminated that are not biodegradable under anaerobic circumstances. However, the report concludes that from a scientific point of view there is no indication of any need for a mandatory anaerobic biodegradability if it is ensured that a substance is readily and ultimately biodegradable under aerobic conditions. This should be taken into account when biodegradation criteria are assessed for ecolabels.

HERA- Human and Environmental Risk Assessment on ingredients of household cleaning products

The HERA project is a European voluntary initiative that was established in 1999 as a partnership between AISE (The International Soap, Detergent and Maintenance Products Association) and Cefic (The European Chemical Industry Council). The aim of HERA is to produce risk assessments on chemicals used in household cleaning products based both on hazard and exposure. HERA provides a common risk assessment framework for the household cleaning products industry, and shows that this process can deliver evaluated safety information on the ingredients used in these products in an effective and transparent way. Representing surfactant producing industry CESIO is a very active contributor to HERA.

The HERA principles are:

- Partnership between producers and users of chemicals
- Science based risk assessments
- Grouping of substances where applicable
- Close links to other international programmes such as the ICCA/HPV chemicals initiative
- Transparency and open dialogue with stakeholders
- Risk assessments reviewed by an independent group of academic experts

10 of the 16 substances in Phase 1 have now been completed and published on the web (www.heraproject.com) and the remaining will be published during March and April. These 16 substances represents about 106 CAS Nos and about 70-75% of the total tonnage used in household laundry detergents. Today Phase 2 of the HERA project is under way and about 15 new substance groups will be covered. It is estimated that at the end of the project, about 95% of the total tonnage of the household cleaning formulation will have been assessed.

HERA can be considered to be a pioneer exercise and some of the key learnings are:

Results

- HERA is able to deliver R-A's even on critical substances
- People are expecting HERA reports, and they are acting on the reports
- HERA has raised expectations
- Links to the activities under the ICCA HPV initiative mutually beneficial

Commitment

- Real Commitment is important, including resources
- One company should take the lead
- Contract and clear procedure within one substance team is crucial

Organization

- Good cooperation between the Substance Teams and the Task Forces is needed.
- Problems with progress and timing should be proactively communicated
- Continuous tracking of progress is needed
- Substance Team leaders may need organizational support
- Kick-off meeting in the beginning helps a lot (done on Jan 31st 2003)
- Other market sectors may require different approaches.

More information on the risk assessments is available on the internet at: www.heraproject.com

Global Aliphatic Alcohols and Alcohol-based Surfactants Environmental Risk Assessment and Research Coordination Meeting

On 11th December 2002, the salubrious Brussels Airport Sheraton Hotel was the venue of the first Global Aliphatic Alcohols and Alcohol-based Surfactants Environmental Risk Assessment and Research Coordination Meeting.

Recognising the considerable ongoing research projects, international assessments and regulatory challenges associated with this large family of chemicals – a meeting of all stakeholders was called with the objective of developing a common understanding of all the above activities, to review, discuss and identify priority research topics and to identify priorities for future research and collaboration.

The meeting was well attended with 21 delegates representing major international stakeholders – the US SDA, Japanese SDA, CESIO, APAG and ERASM.

Representatives from each organisation gave an overview of their activities, followed by more detailed presentations on some priority research topics – aquatic risk assessment (CSARA), ICCA Aliphatic Alcohols Consortium and analytical methodologies and monitoring.

The participants discussed priorities for future research and used an existing project ranking/prioritisation process (used by ERASM) to complete a first pass prioritisation of ongoing global and regional activities on an association basis. Priority areas included environmental monitoring, risk assessment methodologies and effects. All participants agreed to review and discuss this priority setting exercise within their respective associations.

The meeting participants agreed to identify contact points within each organisation to form a network directly linked into the relevant research projects. This network will serve as the mechanism for day-to-day input from each of the global industry stakeholders into the respective research activities, ensure effective communication between stakeholders, identify areas of common interest and recognize where output from one activity may assist another.

A follow-up meeting will be held in the second quarter 2003.

CESIO and the White Paper / REACH (Registration, Evaluation and Authorisation of Chemicals)

Since the article in CESIO news issue 5 on "HERA and the White Paper", the issue of REACH has arguably become the major issue for the whole of the European Chemical Industry (see links from the general CEFIC site at <http://www.cefic.org>)

Only a few selected issues and activities specific to the surfactants industry will be reviewed here, therefore:

A CESIO contribution to the Cefic assessment of impact of the new EU chemicals policy on European Business

A CESIO document was submitted, and described as "an outstanding contribution".

Its main conclusions were as follows:

- For many smaller volume surfactants producers the costs of REACH will outweigh any benefit. SMEs would be worst affected.
- Up to 50% of surfactant products could disappear from the market.
- Producers in the EU will be economically disadvantaged, with investment and production decisions favouring non-EU sites.
- Innovation in Europe will be stifled, not only for new high volume products, but also with respect to flexibility in tailoring existing products to new optimised applications.

The conclusions were based on considerations including the following:

- The EU surfactant industry and its markets are extremely complex and highly diverse. There are many producers with a large number of product types and wide range of end-use markets.
- A particular characteristic is the portfolio of low volume "speciality" products – particularly from SMEs.
- As a consequence of REACH, such portfolios are likely to be drastically rationalised. Companies will not be able to afford costs of registration of small volume niche products. This will lead to use of technically inferior commodity surfactants.
- Any uncertainty discourages investment – failure to clarify the status of polymers for instance is already causing uncertainty.
- Producers of both finished articles and surfactant substances outside the EU will have an advantage – they will be able to produce products, intermediates and finished articles with lower notification costs that will exacerbate the advantages from lower wage and environmental legislation costs outside the EU.
- Confidential (and valuable) business information may have to be disclosed by participants in consortia for risk assessment. Non-participating competitors could potentially take advantage of this without incurring costs (compare experience with the EU Biocidal Products Directive).

CEFIC "Thought Starter" Final Report

The final report of the Pilot Trial Of The CEFIC Thought Starter, prepared by Risk & Policy Analysts Ltd, was published in March 2002. RPA highlighted two key matters from the study. First, they concluded that the Thought Starter appears to be a practical basis for implementing REACH and second, they found there were considerable difficulties in communications between suppliers and users. The only surfactant piloted was alkyl sulphate for emulsion polymerisation, rather than household detergents etc, but nonetheless much insight into the problems of vertical consortia including downstream users as well as suppliers was gained.

CESIO Statistics and TRA group activities

In order to facilitate eventual data gathering and consortium formation for surfactant manufacturers changes have been made to the CESIO production and sales statistics gathering exercises. This extends the degree of detail in the statistics, and consolidates individual national input. This will help CESIO to identify companies who are likely to be interested in joining possible consortia groups.

In addition a small task force within CESIO's Technical and Regulatory Affairs management group (TRA) has been formed to prepare a questionnaire to gather more detailed information on individual chemicals of interest to members, again with a view to consortia formation when appropriate.

More formally the task force's remit can be summarised as follows:

- To identify preparatory actions that could be taken by CESIO and its membership to facilitate implementation of REACH
- To identify potential issues arising from the implementation
- To facilitate gathering and collection of fundamental data essential to the REACH process by
- Liaising with sister organisations and sharing thinking to ensure consistency and prevent duplication

ICCA HPV

Driven by growing public concern and criticism the ICCA HPV initiative has started in 2000 to accelerate and finalise hazard assessment of existing HPV chemicals until 2004. CESIO companies has joined or established international consortia for HPV surfactants substances in order to compile and validate available health and environmental data, identify possible testing needs and generate missing data, when necessary. The costs associated with these activities are shared among consortia members according to their production volumes.

The data compilations (OECD SIDS: Screening Information Data Set) and assessments

OECD SIAR: SIDS Initial Assessment Report) generated in the frame of this initiative will be presented to the OECD Existing Chemicals Programme and adopted by OECD member states in the form of officially recognized risk assessments. To this end the ICCA-consortia have to achieve the readiness of so-called sponsor countries to present a risk assessment draft to the Existing Chemicals Forum. Moreover, this programme links with the AISE/CEFIC "HERA" and European Commission "REACH" concept.

Today the status of the consortia under CESIO and ECOSOL Sector Groups umbrella is as follows:

CESIO

- Amine oxides: hazard data compilation finalised, exposure data collection in progress
- Betaines: hazard data compilation almost finalised
- Anionic Surfactants: hazard data compilation finalised, exposure data collection in progress
- Hydrotropes: hazard data compilation finalised, exposure data collection in progress
- Glycerides: hazard data compilation finalised, exposure data collection in progress

ECOSOL

- LAS: SIDS finalised

With exception of the Betaines, CESIO members are working together in consortia with the american SDA (Soap and Detergents Association), who is also committed to the ICCA HPV programme.

Ecolabelling

In 2002 the EU Commission revised criteria for Ecolabelling for 2 Detergent types (Laundry and Automatic dishwashing); consequently, this year was a very active one. As surfactants have become more and more under scrutiny, CESIO Steering Committee took the decision that CESIO should play an active part in the development of ecolabelling criteria.

The CESIO main objective in this context is to focus on surfactants and make sure that they are described correctly and are evaluated using reasonable criteria.

The major events that occurred in 2002 for Ecolabels were:

- The Commission decision covering the criteria for detergents for Dishwashers was adopted on November 29th. (2003/31/EC).
- In December the criteria for laundry detergents were adopted on their turn.
- Work has also started on the updating of the DID list (Detergent Ingredients Database), a list that is used in the Ecolabel rules.

For these ecolabels for detergents, a key criterion for surfactants has been changed: The rejection of surfactants that are not anaerobically biodegradable.

Up to now all arguments of ERASM/CESIO/ECOSOL to oppose this point were rejected by the Commission.

On the other hand it is important to know that the CESIO participation has started only in the last months of 2002.

- The existing criteria for hand dishwashing detergent and hard surface cleaners are due to be reviewed. Work will start in 2003 and is expected to be completed by the end of 2004.

CESIO Participation

With the active participation of CESIO via a CESIO Ecolabel task force, CESIO tries to defend the position of the industry, which is not fully supporting these criteria for Ecolabels.

With the participation of CESIO in developing of ecolabel criteria CESIO also tries to co-ordinate industry contacts with the EU Commission on this topic.

It cannot be ignored that the existing EU Commission decisions on ecolabels may also have an impact on other coming EU Regulations.

CESIO will also have to prepare and fine-tune arguments on the anaerobic biodegradability if we want to get some modifications in the next EU Ecolabel Decisions updates: work that will start already this year.

Future Events

CED Annual Meeting (Comit_ Español de la Detergencia Tensioactivos y Afines, 26-28 March 2003, Comunidad Valenciana (España)

Plenary Lectures, Oral Communications and Posters will be presented on specific scientific-technical topics:

- Raw materials
- Synthesis and Analysis
- New Developments and Applications
- Physico-Chemistry
- Environment
- Legislation
- Markets
- Consumption / Distribution

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41st WFK International Detergency Conference, 18-21 May 2003, Düsseldorf (Germany)

The first two conference days will be focussed mainly on fundamental and legal questions of detergency science and technology as well as on home laundering and cleaning. On the third conference day, papers directed to I&I Laundering and Cleaning, Cleaning of Medical Instrumentation including the important questions of hygiene, quality assurance systems and environmental problems (effluents, solvent technologies in dry-cleaning), are planned.

For further information please contact:

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6th World Surfactants Congress, 20-23 June 2004, Berlin, Germany

CESIO 2004 will stimulate communications between manufacturers and suppliers in order to improve everyone's awareness of where the surfactant industry is going, and what needs to be accomplished in the future. This congress is a great opportunity to learn the latest developments in various areas of the surfactants industry, to discuss key issues with colleagues and to discover opportunities for the future.

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94th AOCS annual meeting, 4-7 May 2003, Kansas City, Missouri, USA

The AOCS Annual Meeting & Expo is the most prominent event for the world's leading professionals in vegetable oils, fats, soaps, surfactants, detergents, and related fields. Over 500 oral presenters in more than 60 sessions, in addition to 150 poster presenters, will be presenting the latest research and industry advances.

For further information please contact:

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10th Meeting CID (Comitato Italiano dei Derivati Tensioattivi), 4-6 June 2003, Milano (Italia)

CID will be offering all its members, foreign visitors and participants the opportunity to exchange ideas and information, so contributing towards the technological and industrial development of the numerous sectors of the field of surfactants.

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CEFIC, the European Chemical Industry Council, is the Brussels-based organisation representing national chemical federations and chemical companies of Europe. All together, CEFIC represents, directly or indirectly, about 30,000 large, medium and small chemical companies in Europe, which employ about 2 million people and account for more than 30% of world chemicals production.

CESIO (Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques) is the CEFIC sector group representing the European producers of surfactants. The aim of CESIO is to develop and promote surfactants, keeping in mind environment and health.

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