ZVEI: Die Elektroindustrie

Position Paper

RoHS Pack 15
Stakeholder Consultation –
Position Paper Substance Methodology

December 2018

Zentralverband Elektrotechnik- und Elektroindustrie

Preliminary remarks

Thank you for the possibility to provide comments on the draft substance methodology manual and the substance inventory.

We welcome the decision, in contrast to the original timetable, to carry out the consultation on substance methodology first and then, based on its outcome, to assess the seven substances already prioritized.

In future, for consultations with high volume documents we would appreciate to get more answering time. This offers the opportunity to identify all relevant concerns and to support the argumentation by providing meaningful examples. In order to involve as many stakeholders as possible, we generally recommend that consultations start best at the beginning of the week and end at times when availability is expected to be high. We would like to express the following concerns and improvement proposal.

Substance assessment

In RoHS Article 6 (1) it is clearly stated that REACH is an essential basis for prioritizing new substances: “The review and amendment of the list of restricted substances in Annex II shall be coherent with other legislation related to chemicals, in particular Regulation (EC) No 1907/2006, and shall take into account, inter alia, Annexes XIV and XVII to that Regulation.”

In addition to the comprehensive substance knowledge provided from the registration dossiers available at ECHA, RoHS Article 6(1)(a)-(d) defines the crucial criteria for including a substance in a pre-assessment with special regards on waste treatment. Special attention should therefore be paid to this aspect.

The prioritization of substances under RoHS should focus on actually occurring, uncontrollable hazards in the treatment of WEEE that exist despite the application of all available occupational health and safety measures.

After all the argument that hazardous substances might be released to the environment, through wrong or illegal treatment of WEEE it is in our view not a criterion to be considered for the evaluation of new substances in EEE.

Grouping of substances

The grouping for the evaluation of substances should be carried out and reviewed on a case-by-case basis as there are no common rules for the grouping of substances. Substances show different intrinsic properties despite similar molecular structures. Concerns about a substance are an individual characteristic that may differ within a chemical class. When a grouping is performed, it should be evaluated according to the effects of substances, e.g. (eco-)toxicological effects, hazard classification or toxicokinetic.

The statement in the draft on page 17 about chemical structure and characteristics within a substance group is scientifically incorrect, e.g. enantiomers are stereo isomers with identical chemical composition and structure, they just differ in their configuration. Their physical properties are identical, but their biological effects may be completely different, e.g. Thalidomide. Furthermore, a group of phthalates includes short chain phthalate e.g. DEHP, repr. 1B and long-chained phthalate, e.g. DINP not classified.

Assessment of substitutes

The assessment of possible substitutes for materials in electrical and electronic equipment should focus on their benefits in relation to criteria (a) to (c) referred to in Article 6(1) and should follow the principle of RoHS Article 5(1)(a) for adapting of Annexes III and IV. Potential substitutes must be evaluated according to identical criteria to the same extent as the substances to be substituted. Otherwise, unknowingly higher risks might be accepted, see also Rec. 18 of the RoHS.

Developing the methodology, it should be considered that a replacement of a substance or material needs intensive technically testing for functionality and durability for each specific application. Thus, substitution is often time consuming and expensive. This poses a particular threat to SMEs and leads to undesirable market concentration.

Socioeconomic Analysis

A socio-economic assessment should be carried out according to clear, established rules and a scientific approach which is in line with the REACH Regulation and is established/applied by the SEAC.

In the event of a lack of data, rules and/or measures for the collection of valid data must be defined. Example "Impact on waste management": For example, if reliable data from waste treatment are not available, studies involving stakeholders may need to be commissioned before a substance is proposed for inclusion in Annex II. This also applies to other categories. If no substantiated data are available, it must be proved which effects can be expected without restriction of the substance.

The balancing of the potential benefits of a restriction against the costs is not to be understood exclusively in monetary terms. Rather, the sum of all negative effects should be considered. Example "Impact on manufacturers": Impact on energy efficiency, sustainability, impact on product safety, restrictions on innovation, reduced competitiveness with non-EU countries.

Also, the benefits must be quantified using clearly defined criteria, so that a calculation of the cost-benefit ratio becomes transparent and comparable.
The entire process of socio-economic evaluation should include technical and economic feasibility for small and medium-sized enterprises (SMEs) (RoHS 2011/65/EU Rec. 8).

Burden of proof

The CE procedure must comply with standard EN 50581 (IEC 63000). Experience shows that the market expects a higher verification depth than originally prescribed by the standard. Therefore, a corresponding analysis effort is generated for each additional regulated substance. Even if the use of the substances is not to be expected.

Impact assessment per additional substance for an average company:

- Effort for communication in the supply chain with approx. 20 working days / company including maintenance of product documentation.
- Analysis e.g. as part of the initial sampling with a cost expenditure of approx. 2.5 million Euro / Company
- Resource requirements, e.g. energy and solvents, within the framework of the analysis at the test institutes

The largest part of the supply chain is composed of SMEs (ZVEI members: > 80 %), with a significant higher burden on the verification process in relation to other companies.

Inventory

The objective of the review of Annex II is to prioritize future substances of potential concern, in particular with regard to their effects on the waste treatment process (Article 6.1) and the amount of their use in EEE. For this purpose, the identification of each substance or material used in EEE is irrelevant. Therefore, a survey on the use of substances is inefficient and ineffective regardless of their (potential) concerns, e.g. see required information on palladium, platinum, copper, citric acid, magnesium carbonate, EVAC etc.

The inventory to be compiled should be limited to those substances whose risk has already been identified in coherent legislation, Rec. 10 and 16. The inventory should focus on substances which remain in the final product and have been identified to pose a potential risk in the recycling or waste phase of the product.

Therefore, the given inventory information is related to other regulated substances (REACH Annex XVII and Candidate List, POP V), already examined by the IEC 62474 Validation Team. Regarding the quantities used for EEE, there are extensive data available from the registration process at the ECHA.

Using the registration data guarantees to avoid wrong interpretation because collecting information of different supply chain members causes multiplying of amounts.

Contact person

Christian Eckert
Head of Environmental Department
ZVEI - Zentralverband Elektrotechnik- und Elektronikindustrie e. V.
Lyoner Straße 9
60528 Frankfurt am Main
Phone: +49 69 6302-283
E-Mail: eckert@zvei.org

Editor

ZVEI - Zentralverband Elektrotechnik- und Elektronikindustrie e. V.
Lyoner Straße 9
60528 Frankfurt am Main
www.zvei.org

About ZVEI

The ZVEI - German Electrical and Electronic Manufacturers' Association promotes the industry's joint economic, technological and environmental policy interests on a national, European and global level. The ZVEI represents more than 1,600 companies, mostly SMEs.

The industry has round about 868,000 employees in Germany plus 736,000 employees all over the world. In 2017 the turnover was Euro 191 billion.

The electrical and electronics industry is the most innovative industry sector in Germany. One-third of the industry´s sales are based on new products. The industry spends Euro 17.2 billion in R&D every year, Euro 6.1 billion in investments and Euro 2 billion in training and further training. Every third innovation in Germany´s manufacturing sector stems from solutions of this industry.

Annex 1 - Consultation questionnaire

1. Please specify additional lists of relevance for specifying substances identified or suspected of having hazardous properties. (Section 1.1., pg. 24)

See RoHS Pack 15 Stakeholder Consultation – ZVEI Position Paper Substance Methodology lines 15 to 30 (substance assessment)

2. Please specify additional lists of relevance for specifying substances used or suspected of being used in EEE. (Section 1.2., pg. 27)

See RoHS Pack 15 Stakeholder Consultation – ZVEI Position Paper Substance Methodology lines 15 to 30 (substance assessment)

6. For the purpose of specifying an exhaustive list of socio-economic impacts to be considered, please specify categories that should be taken into consideration. (Section 3., pg. 43)

See RoHS Pack 15 Stakeholder Consultation – ZVEI Position Paper Substance Methodology lines 62 to 81 (socioeconomic analysis)

7. If you have any further comments, where relevant, please note the section/page to which they refer or quote the text of relevance from the manual to support understanding.

See RoHS Pack 15 Stakeholder Consultation – ZVEI Position Paper Substance Methodology:

- lines 33 to 46 (grouping of substances)
- lines 49 to 59 (assessment of substitutes)
- lines 84 to 98 (burden of proof)
- lines 101 to 118 (inventory)