

ACEA¹ response to the EU public consultation on the ECHA recommendation to include “Azodicarbonamid” (ADCA) in REACH Annex XIV

The use of ADCA for automotive products is crucial due to its functional and technical properties. At the moment ADCA is the most important blowing agent for the manufacturing process for the production of expanded thermoplastics, elastomers and rubbers. Further typical applications are in tapes, structural foams providing assistance in crash performance or lightweight solutions for polymers such as foamed EPDM, PVC, PE and CR which are reducing the overall vehicle weight, improving fuel economy and lowering tailpipe emissions. It furthermore is used in the production of sealants and other materials that support the reduction of wind and structure born noises and vibrations. At the same time it is improving corrosion performance of vehicles by preventing moisture to enter the cavities. It is mainly applied in the body in white area and expands during electro-coat.

The risk associated with ADCA are at the very beginning of the value chain, when ADCA powder is added by the material formulators to the polymer matrix and formulated into the solid polymer or pumpable paste product. Workers in the automotive supply chain are therefore not exposed to respirable ADCA dust.

The related production processes are furthermore often robot applied - any workers that may come into contact with materials containing ADCA are required to follow the RMMs provided in the Safety Data Sheets. These RMMs are well established and strictly adhered to in our industry.

During manufacturing of parts ADCA decomposes to less than 0.1% weight/weight in the final article if processes are conducted appropriately. Remaining ADCA residues are embedded in the polymer matrix and thus do not pose any risk of release and exposure to the consumers.

In the analysis of alternatives - the majority of substances proposed in the Annex XV Dossier carry a far greater risk than ADCA or are not adequately assessed. If these alternatives are used in the same quantities as ADCA, then their risk assessment score would be far higher than ADCA, meaning that they would also need to be substituted - this is not an effective sustainable solution and this approach should be avoided at all costs.

The only substitute that was not worse from a toxicological viewpoint was sodium bicarbonate - this is already used in our industry when products of a higher density can be used. It is not a suitable alternative for lower density products as it does not have the expansion performance of ADCA (400% vs. 4000%). If used as a substitute it would add weight and cost to our vehicles and hampering our tailpipe CO₂ efforts. Most other alternative chemical blowing agents are inappropriate for the production of expanded polymers / elastomers. The temperature range for decomposition is too low (in case of TSH, Toluensulfonylhydrazid) or too high (in case of TSS, p-

¹ **About ACEA:** ACEA is the European Automobile Manufacturers' Association (www.acea.be), representing the fifteen Europe-based car, van, bus and truck makers. ACEA speaks on behalf of a sector that is vital to EU growth and plays an important part in Europeans' lives, from employment and social benefits, to education, innovation, investment, and product and mobility concepts. ACEA's members provide direct employment to more than 2.2 million people and indirectly support another 10.7 million jobs mostly in small and medium-sized enterprises of the automotive supply chain.

Toluolsulfonylsemicarbazid – for thermoplasts), the particle size is too big (NaHCO₃) or they produce undesirable Nitrosamines (5-PT, 5-Phenyltetrazol).

ADCA is used in the processing of more than a hundred of different parts per vehicle which would require a redesign of past and current models. As the materials produced with ADCA blowing agents include crash / safety performance applications in the vehicle, a change in product specification would invalidate the EU Type Approval - this could require all vehicles to be re-assessed for crash performance and re-type approved at great expense to the industry.

Currently no suitable alternatives with the correct expansion criteria and processing temperatures have been identified. If a technically suitable alternative were to be identified in the future, the automotive industry would require a 5 to 7 year introduction period for the developments and homologation of new vehicles. Therefore it is crucial to our industry that sufficient lead time is provided in case of any necessary substitution.

For the production of spare parts, industry misses any option to substitute the use of ADCA. It is needed to maintain the integrity of the performance of the parts in relation to the performance of the vehicle as a whole due to the shortage of “old” vehicles for validation purposes. This “repair as produced” principle has to be applied, otherwise spare parts will be unavailable and the loss for the customer will be unacceptable.

Additionally, the automotive industry has to question the high scoring for the prioritisation of ADCA for Authorisation. The scoring points for volume and dispersive uses are too high. As the risks associated with ADCA are in the dispersive powder form, the industry volumes should only be attributed to the volumes of ADCA in the powder form. In this case a volume of 10,000 – 100,000 tonnes per annum is too high.

Dispersive uses are only relevant where the powder is handled and are irrelevant when ADCA is bound to a polymer matrix, where it cannot be released.

We believe if the powder form of ADCA was assessed, addressing the real concerns, then the scoring would not warrant prioritisation for authorisation.

Effective risk management measures at this stage is a far more efficient method to enable industry to address the concerns of ADCA usage, rather than subjecting the industry to the uncertainties of the Authorisation process, which is incompatible to the automotive development process and would force our industry to seek alternative solutions such as sourcing parts produced with ADCA from outside of the EU.

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