

Technology set to revolutionise global aerosol industry

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The award-winning technology is set to be tested by industry experts

Technology developed by a specialist research team at the University of Salford looks set to revolutionise the global aerosol industry, following agreements to run commercial trials of the technology by some of the industry's biggest names.

The 'Eco-Valve' technology, developed by the Spray Research Group at

the University of Salford is the result of ten years' research, to try and solve the challenge of removing Volatile Organic Compounds (VOC) or Liquid Petroleum Gas (LPG) propellants from consumer [aerosol](#) products.

Replacing such chemicals has been an ongoing challenge within the aerosols industry, with many of the proposed alternatives to date having failed to deliver a solution which consistently performs as well as traditional aerosol sprays.

Researchers at the University have now successfully addressed this problem by using an environmentally friendly compressed gas propellant (air or nitrogen) which is delivered by the new Eco-Valve system.

Extensive tests have shown that the Eco-Valve consistently performs just as well as traditional aerosol products in terms of quality of spray, fine particle size and contents exhaustion of the product in the can.

The like-for-like performance, combined with Eco-Valve's compatibility with most existing filling equipment, means that a significant portion of the global aerosol industry could quickly and easily switch to a compressed gas solution and massively reduce the need to use LPGs and other VOCs in the production of sprays. This in turn would have a positive impact across the supply chain through the removal of highly volatile and flammable propellants which are costly to store and transport.



The aerosol spray is innovative because of its lack of CO₂ gasses.

The Eco-Valve technology has now been patented by a newly formed British company, Salvalco, whose name derives from 'Salford Valve Company' - a joint enterprise between the University of Salford and AWI Group (UK-based international engineering company).

Commercial interest in the product comes after two of the leading names in the filling industry - Colep and One Asia - agreed to conduct extensive trials of the product and both have signed a Technical Cooperation Agreement with Salvalco. In addition Salvalco is also involved in advanced negotiations with a number of leading brands and specialist manufacturers.

Professor Ghasem Nasr, Director of the University's Spray Research Group, said: "The challenge with this innovation was to take the bench

top prototype to commercial product reality and simultaneously managing the expectation of the upcoming aerosol legislations, the global industry and the consumer choices."

Mark Waters, Salvalco's Commercial Director who has over 20 years' experience in the aerosol and filling sector, said: "When we initially looked at the University of Salford's research and test results we were very impressed. However, we also knew that taking the Eco-Valve technology out of the lab and putting it into the market place would be a challenge.

"Having presented the concept to contracts fillers, shown samples to many leading brands and demonstrated the product feedback has been highly positive and it's fantastic that the likes of Colep have committed to an intensive testing programme."

Commercial interest in the new product comes just months after the development of the technology was awarded the Times Higher Education for 'Outstanding Contribution to Innovation and Technology' award in December 2014. This annual prize recognises technological breakthroughs at UK universities that have the potential to significantly enhance the operations of the commercial or the public sector.

Provided by University of Salford

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