



Progress beyond

## Solvay's Sustainable Alve-One® Foaming Solutions Win 2022 Pierre Potier Prize

Safe and sustainable alternative to incumbent chemical blowing agents for thermoplastic foams.

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Solvay, a leading supplier of advanced materials, has announced that its [Alve-One® foaming solutions](#) have been awarded the 2022 Pierre Potier Prize\* during a ceremony organized by France Chimie on October 27 in Paris. Alve-One® is a family of safe and eco-friendly, patented chemical foaming agents developed for use in thermoplastic foams.

The innovative Alve-One® technology is based on functionalized sodium bicarbonate, offering foam resin producers, additive manufacturers and plastic converters a uniquely safe, sustainable and efficient alternative to incumbent hazardous blowing agents. The Alve-One® technology protects people throughout the entire life cycle of the foaming solutions, from storage, handling, transport and processing to the final foamed products, including recycling since it does not generate residues.

"We are very pleased to receive this prestigious prize, which acknowledges our firm and continuous commitment to sustainability" said Karine Cavalier, Business Line Manager. "Solvay is ready to collaborate with the plastic foam industry in the transition to its Alve-One® portfolio, which will take their foaming business to new heights, stepping up innovation, efficiency and sustainability."

Solvay's Alve-One® foaming solutions are a perfect example of 'safe and sustainable by design' chemistry, well aligned with the EU Green Deal and [Solvay's One Planet](#) commitment. They provide a superior alternative over potentially hazardous and/or toxic blowing agents as well as expandable microspheres currently in the market, without compromising performance or efficiency. In particular, the technology has been accredited as a safe substitute for azodicarbonamide (ADCA), which has been classified by the REACH Regulation\*\* as a Substance of Very High Concern (SVHC).

Furthermore, Alve-One® foaming solutions provide sought-after benefits, e.g. in white foam formulations, where they reduce the need for titanium dioxide (TiO<sub>2</sub>) while enabling odorless foams and minimizing the emission of volatile organic compounds (VOC). With 10 times lower CO<sub>2</sub> equivalent emissions, 34 times lower water and 22 times lower energy consumption than ADCA, they also help users reduce the overall environmental footprint of their processes and products.

"Each ton of ADCA replaced by Alve-One® in plastic foams is a step towards a more responsible and sustainable chemistry for the well-being of all of us and our planet" added Jean-Yves Seguin, Project Manager at Solvay.

Due to their inherent versatility, Alve-One® foaming solutions can be used in a wide range of thermoplastic polymers and are compatible with most additives in plastic foaming. Manufactured in



Europe, they are globally available in a unique set of formulations, each developed to address specific application requirements in areas including primarily automotive, footwear, building & construction, consumer goods and packaging.

Alve-One® has been officially identified as a sustainable alternative for foamed thermoplastics by multiple organizations, such as the International Chemical Secretariat (ChemSec), the Solar Impulse Foundation, [which recognized it as an Efficient Solution](#), and Inovyn, [which gave it an Innovation Award in 2019](#).

Solvay has already won the Pierre Potier award in:

- 2021, [for its Addibond™ innovation](#), high-performance specialty additives for paint and adhesive adhesion on aluminum and galvanized steel.
- 2019, [for its AgRho® S-Boost™ innovation](#), a seed treatment product of bio-sourced origin that stimulates plant growth and develops root architecture.
- 2016, [for its Move4earth™ innovation](#), enabling the transformation of complex textile waste into high-quality recycled plastics.
- 2015, for its innovation, BiFor-Safe®, a solution based on sodium bicarbonate and mineral salts, which effectively fights certain pests and improves the hygiene of agricultural buildings.

*\*The Pierre Potier Prize was created in 2006 by the French Ministry of the Economy, Finance and Industry, and is supported by the Fondation de la Maison de la Chimie and France Chimie. Its aim is to promote and encourage innovation by chemical companies in favor of sustainable development. Awarded by a jury of representatives from research, industry and ministries, the prize has become a reference label for business-supporting organizations.*

*\*\* The Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation.*

*Alve-One®, Addibond™, AgRho® S-Boost™, Move4earth™ und BiFor-Safe® is a registered trademark of Solvay.*



## About Solvay

Solvay is a science company whose technologies bring benefits to many aspects of daily life. With more than 21,000 employees in 63 countries, Solvay bonds people, ideas and elements to reinvent progress. The Group seeks to create sustainable shared value for all, notably through its Solvay One Planet plan crafted around three pillars: protecting the climate, preserving resources and fostering better life. The Group's innovative solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices, health care applications, water and air purification systems. Founded in 1863, Solvay today ranks among the world's top three companies for the vast majority of its activities and delivered net sales of €10.1 billion in 2021. Solvay is listed on Euronext Brussels (SOLB) and Paris. Learn more at [www.solvay.com](http://www.solvay.com).

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