

Design for sustainability (DfS) scorecard



With our DfS scorecard, we drive sustainability improvement during the product development process through multiple product sustainability criteria divided into seven impact areas.

118488 : N-Acetyl-D,L-Tryptophan EMPROVE® EXPERT Ph Eur,BP

Lower-Impact Synthesis of Excipient for High-Risk Applications



Impact areas

Results



MATERIALS

New synthesis eliminates the use of hydrochloric acid, a corrosive hazard



SUPPLIERS & MANUFACTURING

Manufacturing partner participates in Together for Sustainability



PACKAGING

The use of foil laminates in raw material packaging was eliminated and the new LDPE bag and fiber drum are fully recyclable at our facility. Product packaging is a white HDPE drum with LDPE liner which do not contain pigments or additives and are fully recyclable where these materials are accepted.



ENERGY & EMISSIONS

Energy-intensive cooling and drying steps are reduced thanks to new synthesis



WATER

Water required to synthesize 1kg of material is reduced by 40% thanks to new synthesis



USABILITY & INNOVATION

No change compared to baseline product in consideration of our DfS criteria



CIRCULAR ECONOMY

New synthesis improves yield by 11%

Baseline product: N-Acetyl-DL-tryptophan EMPROVE® EXPERT Ph Eur,BP (product number 112488)

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