

## A Quantitative Green Chemistry Evaluator - DOZN™2.0

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### Abstract

MilliporeSigma created a unique web-based greener alternative scoring matrix, also known as MilliporeSigma's DOZN, a quantitative green chemistry evaluator based on the 12 principles of green chemistry. The 12 principles of green chemistry provide a framework for learning about green chemistry and designing or improving materials, products, processes and systems. DOZN scores products based on metrics for each principle and aggregates the principle scores to derive a final aggregate score. The system calculates scores based on manufacturing inputs, GHS and SDS data which provide a green score for each substance. DOZN is flexible enough to encompass the diverse portfolio of products. The DOZN system has also been verified and validated by a third party to ensure best practices are applied. This new Greener Chemistry Initiative offer customers' an increased breadth of Greener Alternative products with confirmatory documentations to validate greenness. DOZN 2.0 is launched to customers to use the tool to improve their sustainability.

### Biography

Ettigounder (Samy) Ponnusamy completed his PhD at the University of Madras (India) in 1982 and postdoctoral studies at the University of Illinois at Chicago (1983-87). In 1988, he joined Sigma-Aldrich as an R&D Scientist and worked on many high value projects at various capacity. Currently Samy is the Fellow in Green Chemistry at MilliporeSigma (formerly Sigma-Aldrich), leading the Green Chemistry Initiatives. Samy's work was recognized by The Academy of Science St. Louis, awarded an outstanding scientist award in 2011 and also inducted as a Fellow of the Academy of Science St. Louis.

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