

THE DOZN™ SCALE



Based on the 12 Principles of Green Chemistry*, DOZN helps researchers, scientists, and manufacturers increase performance and efficiency while reducing human and environmental impact.

*Paul T. Anastas and John C. Warner, 1991.

Sodium L-lactate-1-¹³C solution (606022)

	12 Principles of Green Chemistry	Percentage of Improvement	Results
Resource Used	Atom Economy	92%	Increased yield. Used less raw materials
	Waste Prevention	93%	Reduced the generation of hazardous waste
	Reduce Derivatives	74%	Reduced derivative steps
	Renewable Feedstocks Use	91%	Decreased amount of raw materials
	Real-Time Pollution Prevention	N/A	
	Catalyst	No change	
Human & Environmental Hazards Reduction	Energy Efficiency Design	94%	Reduced chemical processing
	Less Hazardous Chemical Synthesis	91%	Minimized the use of toxic chemicals
	Safer Chemical Design	No change	
	Safer Solvents and Auxiliaries	100%	Avoided organic solvent usage
	Design for Degradation	N/A	
	Inherently Safer Chemical for Accident Prevention	91%	Minimized the explosion and flammability hazard

TOTAL PERCENT IMPROVEMENT

92%

AGGREGATE SCORE

0 = Most Desirable



Re-engineered Score ← 0

← Previous Score

The Life Science business of Merck operates as MilliporeSigma in the U.S. and Canada.

© 2024 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved. Merck, the vibrant M and DOZN are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. All other trademarks are the property of their respective owners. Detailed information on trademarks is available via publicly accessible resources. 2024 - 57063