🌱 Green Chemistry Simulation Report

Async Verification Test

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Product Information

Test Product

Molecular Weight: 100 g/mol

Actual Mass: 10 g

Carbon Atoms: 5

Key Green Chemistry Metrics

ATOM ECONOMY	PMI	E-FACTOR	RME	CARBON EFF.
85.0%	15.0	14.0	50.0%	80.0%

STOICH. FACTOR	WATER INTENSITY	ENERGY	SOLVENT INT.	CARBON FOOTPRINT
N/A	N/A	N/A	5.0	N/A

Metrics Interpretation Guide:

- **Atom Economy (AE):** ≥80% excellent, 60-80% good, <60% needs improvement
- **PMI:** <10 pharmaceutical, <5 fine chemicals, <1 ideal
- **E-Factor:** Lower is better; <1 pharmaceutical, <5 fine chemicals
- **RME:** ≥80% excellent, 60-80% good, <60% needs improvement
- **Carbon Efficiency (CE):** ≥80% excellent, 60-80% good, <60% needs improvement

Reactants

#	Name	MW (g/mol)	Mass (g)	C Atoms	Eq. Used
1	Test Reactant	80	8	4	1.0

Solvents

#	Name	Mass (g)	Recovery
1	Water	50	0%

Mass Balance Breakdown

Reactant Mass	8.0 g
Catalyst Mass	0 g
Total Solvent Mass	50.0 g
Aqueous Washes	0 g
Auxiliaries (Drying)	0 g
Total Input Mass	**0 g**
Product Mass	**10.0 g**

AI-Powered Recommendations

- No suggestions available. Run simulation to generate insights.