



# Green up!

## Sustainable Solvent Alternatives



The products we create help our customers improve people's lives every day, but we recognize that every product we make also has an environmental impact. That's why we are committed to continually improving the sustainability performance of our products and adopting a greener chemical process.

Our latest advances in green chemistry include: 2-Methyltetrahydrofuran (Methyl THF), Cyclopentyl methyl ether (CPME) and Ethyl lactate.

### Cyclopentyl methyl ether (CPME)

Cyclopentyl methyl ether is a greener substitute for tetrahydrofuran, tert-butyl methyl ether, 1,4 dioxane and other ether solvents. It is produced by an 100% atomic catalytic reaction without any formation of by-products.

#### Benefits

- Resistance to peroxide formation improves laboratory safety
- One-step reaction saves energy and reduces waste water
- More stable than tetrahydrofuran
- More hydrophobic solvent increases yields and selectivity
- Limited miscibility in water reduces waste stream

Product Description	Qty/pk	Cat. No.
Cyclopentyl methyl ether EMPLURA®	1 l GL	1.08293.1000
	2.5 l GL	1.08293.2500
	4 l GL	1.08293.4000

GL = glass bottle

## Ethyl lactate

Ethyl lactate is a safer and more sustainable alternative to ethyl acetate and acetone. It is an ester of natural L-lactic acid, which is produced by fermentation of sugar.

### Benefits

- Increased user safety due to less toxicity (non-carcinogenic)
- No waste due to 100% biodegradability
- Non-corrosive in contact with metals

Product Description	Qty/pk	Cat. No.
Ethyl lactate EMPLURA®	1 l GL	1.09639.1000
	2.5 l GL	1.09639.2500
	4 l GL	1.09639.4000

GL = glass bottle

## 2-Methyltetrahydrofuran (Methyl THF)

2-Methyltetrahydrofuran is a greener alternative to dichloromethane and tetrahydrofuran. It is derived from renewable resources such as corncobs and sugarcane bagasse.

### Benefits

- Produced from renewable sources
- Reliable availability (supply risk uncoupled from petrochemical production)
- Less solvent needed due to more efficient extraction and higher reaction yields
- Lower volatility and higher flash point increase user safety
- Limited miscibility in water reduces waste stream

Product Description	Qty/pk	Cat. No.
2-Methyltetrahydrofuran EMPLURA®	1 l GL	1.08292.1000
	2.5 l GL	1.08292.2500
	4 l GL	1.08292.4000

GL = glass bottle



For further information visit:  
[SigmaAldrich.com/greener-solvents](https://www.sigmaaldrich.com/greener-solvents)

