



## CONVERSION OF TRIACETIC ACID LACTONE TO POTASSIUM SORBATE

[View U.S. Patent Application Publication No. US-2025-0197337 in PDF format.](#)

**WARF: P230282US01**

Inventors: George Huber, Min Soo Kim, James Dumesic

### The Invention

UW-Madison researchers have developed a new approach for producing the preservative potassium sorbate directly from the biomass-derived chemical intermediate triacetic lactone (TAL) rather than via sorbic acid as an intermediate. This reaction proceeds from TAL via simultaneous ring-opening and hydrolysis. The ring-opening step is base-catalyzed rather than acid-catalyzed as in earlier technologies, which enables simultaneous neutralization of the salt. The researchers have been able to obtain yields of up to 72% thus far. The potassium sorbate can then be purified using THF extraction. Potassium sorbate made via this method has been verified to be effective against bacteria/yeast and can be used as a preservative in the food and pharmaceutical industries.

### Additional Information

#### For More Information About the Inventors

- [George Huber](#)

#### Tech Fields

- [Clean Technology: Biobased & renewable chemicals & fuels](#)

For current licensing status, please contact Jennifer Gottwald at [jennifer@warf.org](mailto:jennifer@warf.org) or 608-960-9854