



# Bio-based Plasticizers for PVC

## PRODUCTION OF ESTER AND EPOXIDE PLASTICIZERS FROM VEGETABLE OILS

### KEY WORDS

BIO-BASED  
PLASTICIZERS, PVC,  
VEGETABLE OILS

### DESCRIPTION

Development focused on producing ester and epoxide plasticizers for PVC from vegetable oils or used cooking oil. These additives, which can account for up to 60% of the final product's weight, improve polymer flexibility. The plasticizer is biodegradable in case of leaching and helps reduce the environmental impact of PVC, a material that is difficult to recycle.

### POTENTIAL BENEFITS OR IMPACTS

Replacement of fossil-based plasticizers with biodegradable alternatives.

Reduction of PVC's environmental impact.

Valorization of used oils.

Improved sustainability of plastic products.

### TECHNOLOGY MATURITY LEVEL (TRL)

TRL 5: Validation in a relevant environment.

### AREA OF APPLICATION

Plastics

Chemicals

### CONTACT US

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