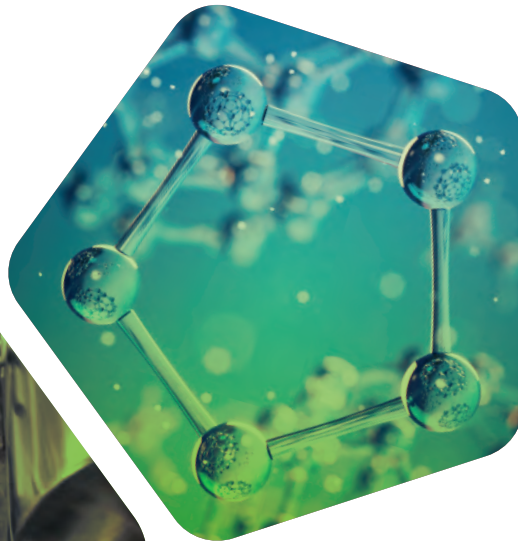


MICHELIN

RESICARE



**Pioneering
a better
future thanks
to bio-based
5-HMF**



MICHELIN

OUR JOURNEY



Beyond resin, innovation for life

Founded in 2016, **MICHELIN ResiCare** is rooted in over **15 years** of adhesive formulation expertise gained within the **Michelin Group's research department**. We develop and market **innovative resins** tailored for **specialty applications**, making a **safer** and **preserved** environment possible for **future generations**.

These resins are **high performing, bio-based**, and free of any **SVHC*** type substances. Our resin chemistry relies on two main platform chemicals, one of them being **5-hydroxymethylfurfural (HMF)**. In order to obtain a large-scale, local and affordable access to HMF, MICHELIN ResiCare decided a few years ago to develop its own HMF production process in cooperation with IFPEN institute.

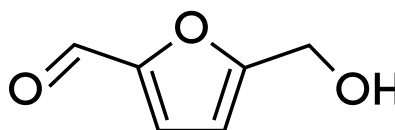
In 2025, the company launched the construction of the **largest HMF production plant** in Europe.

*Substance of Very High Concern as defined by European Chemicals Agency



WHAT WE OFFER

5-HMF is a **100% bio-based** and safe platform chemical used in a wide range of applications. It has long been considered a promising biobased building block due to its versatility and potential to replace petroleum-derived chemicals.



Product specifications

Product: 5-Hydroxymethylfurfural (HMF)

Synonym: 5-Hydroxymethyl-2-furaldehyde

CAS N°: 67-47-0

Molecular formula: C₆H₆O₃

Molecular weight: 126.111 g/mol

Purity: 95%

Titration (aqueous solution): 65%

pH: 3-4



Biobased chemical

Feedstock is fructose derived from potato or wheat starch.



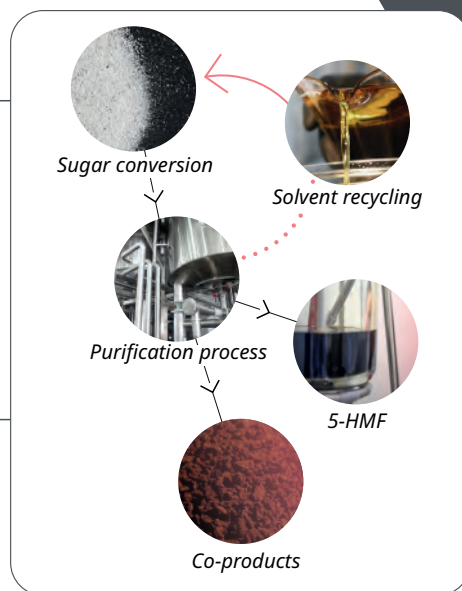
Sustainable production

Low carbon
>70% renewable energy
>99% solvent recycling
Water recycling
Byproduct valorization



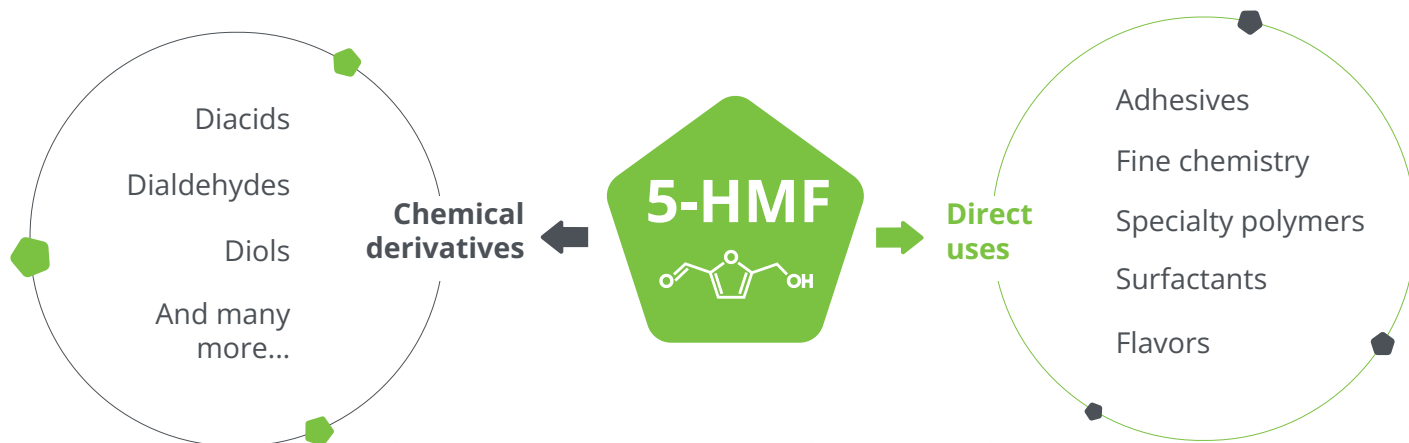
European origin

First plant located in Roussillon (38), France
Fructose sourced in Western EU



LET'S WAKE UP THE SLEEPING GIANT TOGETHER

The versatility of HMF is allowed by its molecular structure: the molecule contains a **furan ring** as well as **aldehyde** and **alcohol functions**, which make it a platform molecule towards an infinite number of chemical derivatives and polymers.





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