

# Crotonic Acid

## General Overview

**Chemical Name:** Crotonic acid (trans-2-butenoic acid)

**Formula:** C<sub>4</sub>H<sub>6</sub>O<sub>2</sub>

**CAS Numbers:** 107-93-7 & 3724-65-0

**Key Derivatives:** Crotonyl chloride, specialty esters, salts

**Industrial Role:** Used as an intermediate in the manufacture of polymers, adhesives, and coatings; in the pharmaceutical and fine chemicals sector; in flavors and fragrances; in the agrochemical sector; and in dyes, textiles, and specialty chemicals.

## Polymers, Adhesives & Coatings



- Used as a comonomer with vinyl acetate to produce VA/CA copolymers for paints, adhesives, and coatings.
- These copolymers offer improved adhesion (to wood, paper, glass, metal) and harder, more scratch-resistant films.
- Vinyl acetate–crotonic acid copolymers are also used in hair sprays and styling resins for medium-to-maximum hold systems.



## Flavors & Fragrances

- Crotonic acid is used in the synthesis of certain flavor and fragrance compounds.
- Acts as a building block for specialty aroma chemicals in the food and cosmetics industries.

## Pharmaceutical and Fine Chemicals Sector



- Crotonic acid and its derivatives act as building blocks in the synthesis of pharmaceutical intermediates and active ingredients (APIs).
- Crotonyl chloride, derived from crotonic acid, is used as an acylation agent in drug and fine chemical synthesis.
- Crotonic acid is a key intermediate for the production of crotamiton, a topical antipruritic/antiscabies agent.

## Agrochemical Sector



- Crotonic acid serves as a precursor in the synthesis of certain herbicides and pesticides, contributing to crop protection solutions.
- Its derivatives are used to introduce functional groups in agrochemical products.

## Dyes, Textiles, and Specialty Chemicals



- Crotonic acid and its derivatives are used as intermediates in the production of dyes, textile auxiliaries, plasticizers, and specialty resins.
- Specialty/niche uses include flotation agents and synthetic building blocks.

Sector	Product/Use	Role of Crotonic Acid
Polymers/Coatings	VA/CA copolymers, adhesives, paints	Comonomer for improved adhesion and hardness
	Hair styling polymers	Hard film formation for styling resins
Flavors & Fragrances	Scent compounds, fragrance intermediates	Raw material for synthesizing scents and aromas
Pharmaceutical/Fine Chem	Crotamiton, APIs, pharmaceutical intermediates	Key intermediate; acylation agent (via crotonyl chloride)
	Specialty chemicals	Building block for fine chemicals
Dyes & Textiles	VA/CA copolymers, adhesives, paints	Intermediate for specialty/niche uses
Specialty Chemicals	Resins, plasticizers	Building block, additive

### Sales Contact

Dr. Jörg Schulte, WeylChem Intermediates GmbH  
Brüningstraße 50, 65929 Frankfurt am Main, Germany

joerg-ludwig.schulte@weylchem.com  
Tel: +49 176 10300998

