



Monochloroacetic Acid



Leading technology delivering
quality and reliability

Nouryon



Quality and versatility on a global scale

Monochloroacetic acid (MCA) and the sodium salt of monochloroacetic acid (SMCA) are essential raw materials used in the manufacture of functional chemical building blocks indispensable to building and construction, crop protection, food additives, personal care products, cleaning goods, pharmaceuticals, and more.

Various industries rely on functional chemicals like carboxymethyl cellulose (CMC), agrochemicals, surfactants, and others which use MCA and SMCA as raw materials – building and construction, crop protection, food, personal care products, cleaning goods, pharmaceuticals, and more.

Producing MCA for more than 50 years, we are one of the world's largest manufacturers with sites in Europe, Asia Pacific, and North America. Our product range includes:

- Monochloroacetic acid (MCA)
- Sodium salt of monochloroacetic acid (SMCA)
- Green monochloroacetic acid (MCA)



We are the first in the industry to produce green MCA, a sustainable alternative offering a significant reduction in product carbon footprint while delivering the same quality and performance as standard MCA

Learn more about our full product line at nouryon.com/mca.

Applications

Monochloroacetic acid (MCA) and the sodium salt of monochloroacetic acid (SMCA) serve as a key raw material for many chemistries essential to multiple industries such as carboxymethyl cellulose (CMC), agrochemicals, surfactants, and others.

Carboxymethyl cellulose (CMC) / Carboxymethyl starch (CMS)

MCA/SMCA is primarily produced to manufacture carboxymethyl cellulose (CMC) / carboxymethyl starch (CMS), a water-soluble cellulose ether used as a thickening agent in aqueous systems with a selection of purity grades across various applications including:

- Oilfield drilling mud additives
- Mining mineral flotation depressants
- Food and beverage additives
- Battery binding solutions
- Pulp, paper and packaging materials

Agrochemicals

MCA/SMCA is applied in the manufacture of crop protection chemicals such as these commonly used phenoxy-acetic acids:

- 4-chloro-2-methylphenoxyacetic acid (MCPA)
- 2,4-dichlorophenoxyacetic acid (2,4-D)

Surfactants

The production of amphoteric surfactants, for example betaines and imidazolines, utilize MCA. Betaines are becoming increasingly important in the manufacture of mild shampoos, liquid soap, and metal cleaning agents. Imidazolines are used as shampoos and industrial cleaners. MCA is also used for making ether carboxylic acids.



Other applications

- Cyanoacetic ester, a raw material for purines, cyanoacrylate adhesives, and vitamin B6.
- Malonic esters, synthesized from SMCA and used in the preparation of barbituric acid, the basis of a wide range of barbiturate drugs.
- Phenoxyacetic acid, a raw material for penicillin.
- Chloroacetylchloride, e.g., used in the production of pharmaceuticals and agrochemicals.
- Purines, caffeine type purines made from urea or its N-methyl derivatives, and ethyl cyanoacetate.
- Glycines, used in the production of pet food, flavoring agents, and pharmaceuticals (i.e., soluble aspirin).
- Dyestuffs, such as indigo.
- Dimethoate, an important insecticide mainly used in tropical and subtropical climates.
- Ibuprofen, produced via the IPA-ester of MCA.
- Chloroacetamide, industrial preservative (biocide).
- Thioglycolates, used as the salt, ester or other derivative of thioglycolic acid in hair cosmetics, thermo stabilizers for PVC, and other applications.

Contact us directly for detailed product information and sample requests
website | nouryon.com/mca
email | intermediates@nouryon.com



Product range and modes of supply

Our MCA/SMCA products are available as indicated below. For more product specifications and details, contact us.

MCA solids

- 25 kg net weight paper bags on pallet with shrink film
- Polypropylene woven FIBCs (big bags) on pallets



SMCA powder or granules

- 25 kg net weight paper bags on pallet with shrink film
- Polypropylene woven FIBCs (big bags) standard 1,000 kg net weight on pallets



MCA liquids

- Includes MCA molten and solutions in water and ethanol
- Shipped in bulk insulated containers
- Containers should be MCA resistant and have heat capacity to avoid crystallization
- Transported by road, rail, or sea



Handling and storage

Safe handling and storage procedures for these products have been established and can be found in the Safety Data Sheet (SDS), provided upon request. Visit nouryon.com/mca.

Protecting the environment

From improving site efficiencies to lowering product carbon footprint, we continuously revise our value chain to see how we can do more with less and support our customers to achieve their sustainability goals.

MCA/SMCA products are readily biodegradable in aquatic ecosystems and highly mobile in soil and sediment and, therefore, are not considered to be persistent in the environment.

We also produce green MCA and have earned ISCC PLUS certifications at multiple sites including Delfzijl, Netherlands, and LeMoyne, US. This product is derived from sustainably sourced raw materials* and can deliver a significant reduction in your product carbon footprint while providing the same quality and performance as standard MCA.

In Taixing, China, we were the first to supply an MCA solution in addition to MCA flakes, currently the market standard. Moving to a solution helps to improve the safety of employees and contractors, reduce waste significantly, and reduce costs.

*Using a mass-balance approach as defined by the International Sustainability and Carbon Certification (ISCC) standard.

Our range of MCA products and modes of supply allow the selection of the product form that best meets your needs, enabling you to increase the efficiency of your production process, eliminate unnecessary costs, and optimize your own carbon footprint.

Discover our full MCA product line, including SMCA and green MCA at nouryon.com/mca.



Sustainability is at the heart of everything we do at Nouryon. It's vital for the future success of our company, our society and our planet.

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Nouryon

Nouryon is a global, specialty chemicals leader. Markets and consumers worldwide rely on our essential solutions to manufacture everyday products, such as personal care, cleaning goods, paints and coatings, agriculture and food, pharmaceuticals, and building products. Furthermore, the dedication of approximately 8,200 employees with a shared commitment to our customers, business growth, safety, sustainability and innovation has resulted in a consistently strong financial performance. We operate in over 80 countries around the world with a portfolio of industry-leading brands. Visit our website and follow us @Nouryon and on LinkedIn.

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