

THE SAFE AND SUSTAINABLE USE OF CHLOROALKANES TO HELP EUROPE MEET ITS GREEN AMBITIONS.

Chloroalkanes contribute to Europe's future



They are essential, life-saving chemicals

Chloroalkanes protect people and buildings from fires in paints, rubber and PVC cables. As they protect, they remain embedded in the material and do not leak into the environment. Some European PVC cables have specific fire performance requirements, which are achieved by chloro alkanes. There are also very few non-hazardous or technically/ economically feasible alternatives to chloroalkanes, a feature also identified by authorities (e.g. 2019 MCCC substance Evaluation, UK).

The production of chloroalkanes, such as MCCC, also forms one of the only sources of high-purity hydrochloric acid (HCl). This HCl is used in the manufacture of pharmaceuticals. HCl can help in revitalising Europe's medicine production, a key part of the EU Pharmaceutical Strategy. LCCC is also essential in industrial paints and coatings to protect buildings.

"No solvent-based formulation has performed so well in intumescent paints as LCCC" – European Council of the Paint, Printing Ink, and Artist's Colours Industry (CEPE) member



They contribute to Europe's greener future

Chloroalkanes improve efficiency of industrial processes to reduce resource use. They are used for cutting stainless steels and other hard metals where other alternatives are not as effective. An example of this is in the machining of strategic aerospace parts at a reduced risk of flash/ fire. This is because they process the metal at a specific temperature, pressure and shear range, reducing the amount of energy needed and greenhouse gas produced. They also extend the cutting tool life, reducing the replacement rate, so fewer resources are needed.

MCCC is also locked away as a plasticiser and flame retardant in insulating foams. These materials reduce the loss of warmed air and are an important part of overall building energy efficiency.

Chloroalkane production is also part of the production chain of hydrogen. This gas is a potential energy carrier for Europe and is seen as a vital part of the Green Recovery.

"Chloroalkanes have a carbon footprint that is upto 44% lower throughout their lifecycle than other PVC additives" – Manchester University research



They can be used safely and sustainably

In metal working fluids, chloroalkanes can be used in lower quantities than other alternatives. They are also easier to remove from the final metal saving energy and improving waste quality.

In PVC, chloroalkanes can be recycled back into other polymer compounds. More than 50,000 tonnes of MCCC-containing PVC wastes are being recycled each year.

In the 2019 Substance Evaluation report under EU REACH, the UK showed that the risks from the manufacture and use of MCCC in Europe are well managed. Data also show that emissions are reduced by users and that chloroalkanes do not persist in the environment, should they be accidentally released via a wastewater treatment plant.

"We are not aware of any readily-available alternatives to chloroalkanes that provide the necessary performance characteristics for extreme-pressure metal working fluids." – Independent Lubricant Manufacturer Association (ILMA) member



<https://www.eurochlor.org/chloro-alkanes-product-group/>
eurochlor@cefic.be



THE SAFE AND SUSTAINABLE USE OF CHLOROALKANES TO HELP EUROPE MEET ITS GREEN AMBITIONS.



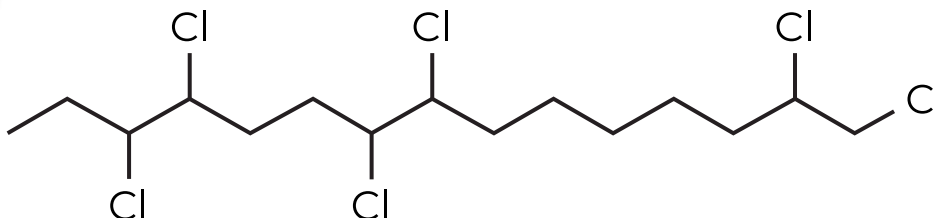
About CAPG

The Chloroalkane Product Group (CAPG) represents the European manufacturers of chlorinated (chloro) alkanes (also known as chlorinated paraffins). CAPG operates in cooperation with the Euro Chlor sector group of Cefic (European Chemical Industry Council).

CAPG promotes the essential safe, sustainable and successful use of chlorinated alkanes.



About chlorinated alkanes



Chloroalkanes are non-reactive, insoluble in water and do not evaporate. Studies have also shown that certain chlorination levels also biodegrade. Chlorinated alkanes are generally grouped into a number of distinct 'families', depending on their carbon chain-length:

Short-chain (SCCP) 10-13 carbon atoms in the chain (no longer produced in Europe or North America)

Medium-chain (MCCP) 14-17 carbon atoms in the chain

Long-chain (LCCP) 18-20 carbon atoms in the chain

Some imported products (i.e. from outside Europe/ North America) may contain carbon chains which are outside of the carbon chain lengths listed above.



CAPG members

Altair Chimica, Italy

INOVYN, UK

Química del Cinca, Spain

Vantage, Germany



Rue Belliard 40
1040 Brussels, Belgium
Tel. +32 2 436 95 08
eurochlor@cefic.be
<https://www.eurochlor.org/chloro-alkanes-product-group/>