CONSER | CONSER[™] C2 Derivatives

CONSER[™] C2 Derivatives

Pioneering adaptable plant design for tailored MEA, DEA, and TEA production



About NEXTCHEM

NEXTCHEM is MAIRE's company dedicated to Sustainable Technology Solutions. Leveraging our profound expertise in nitrogen, hydrogen, carbon capture, fuels, chemicals, and polymers, we deliver groundbreaking solutions and processes that fully enable the energy transition. Building on the rich legacy of our group for over 70 years, we are dedicated to developing and offering technology solutions, processes, basic engineering designs, as well as proprietary equipment and catalysts, to drive global decarbonization efforts forward.

An advanced, well-proven technology

The advantages of CONSER technology, improved and updated by CONSER and its industrial or academic partners, are testified from more than 50 years of research and 20 years of commercial production in different sites worldwide.

Our solution for customized synthesis

CONSER special plant design allows a great flexibility in the production of MEA¹, DEA² and TEA³ and the relevant ratio.

The possibility to maximize one of the three products, without major plant modifications, is available thanks to the latest design improvement developed by CONSER.

In CONSER GE⁴ process, the design of the reactor ensures great flexibility in the distribution of the products, allowing to adapt the production as per market requirements.

1. MEA = Monoethanolamine 2. DEA = Diethanolamine 3. TEA = Triethanolamine 4. GE = Glycol Ethers

CONSER | CONSER™ C2 Derivatives

CONSER C2 Derivatives[™]

Leading the way in advanced production

Applications

Ethanolamine

- MEA DEA TEA: In pharmaceutical industry cleaning-antirusting agent
- Surfactants
- Gas Purifications
- Textiles

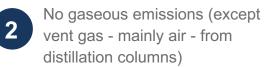
Glycol Ethers

- GLYCOL METHYL ETHER: Primarily solvents; higher versions in brake fluids.
- GLYCOL ETHYL ETHERS: Dissolve oils, resins, etc.; higher versions in brake fluids.
- GLYCOL BUTYL ETHERS: Solvent for paints/inks; anti- icing agents; higher versions for miscible paints and brake fluids.

Your benefits



Product distribution high flexibility with the possibility to maximize a desired product



3 Superior product quality with efficient utility consumption, effortless start-up and shut down, and seamless continuous operation

Cost-effective investment with highly efficient distillate separation, energy savings, and minimal catalyst use

Technical overview

а

Production, recovery and purification of ethanolamines by non-catalytic reaction of ethylene oxide and ammonia. b

Several plug flow reactors (pfr), each followed by an intercooling step to control temperature below 60°C, in order to limit by-products formation.



Production, recovery and purification of mono, di and tri glycol ethers by homogeneous catalytic reaction between butyl alcohol and ethylene oxide.



CONSER GE Technology based on tubular type reactor with unconverted alcohol recovery and its recycle to reaction section.

