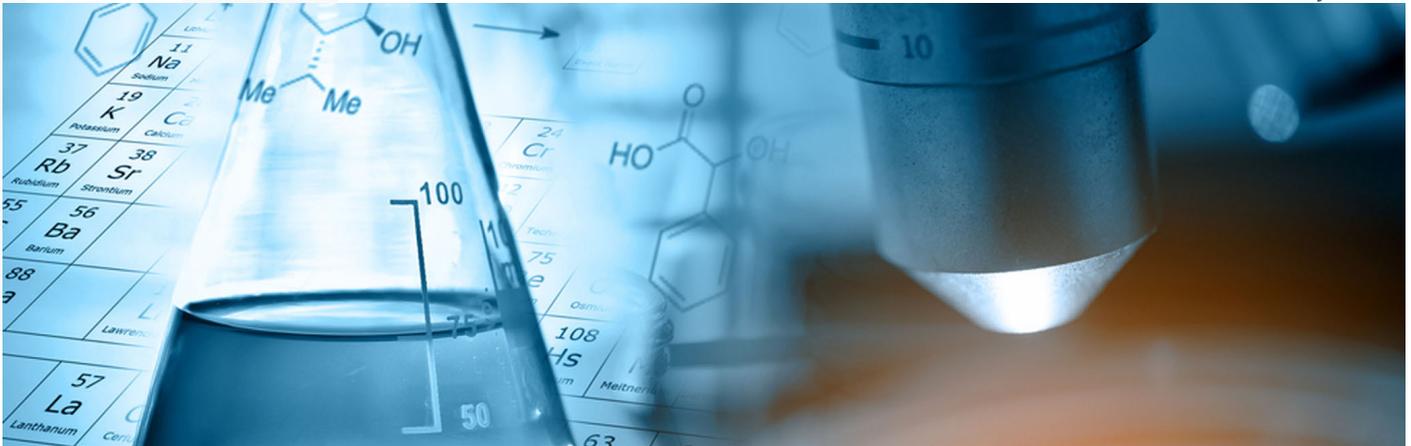


# Our blends have all been declared suitable for FOOD GRADE PRODUCTION

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Adsorbents are used in many applications worldwide and CO<sub>2</sub> purification is considered a niche in the global usage, hence the knowledge of the different adsorbents and their capabilities within the CO<sub>2</sub> industry is – to a high degree – lying with the CO<sub>2</sub> process experts.

Pentair Union Engineering have used this specialized knowledge to compile a portfolio of adsorbents for CO<sub>2</sub> purification applications. This portfolio consists of the products labelled Carbonblends and Puriblends.

Through decades Pentair Union Engineering's experiments, insight and experience have put us in a position capable of advising all our customers on which adsorbents to use for the different impurities and applications, depending on your specific CO<sub>2</sub> plant. The main target being extending plant lifetime, minimizing total cost of ownership and improving CO<sub>2</sub> end-product safety.

## Is your CO<sub>2</sub> production prepared for food safety certification?

In recent years the focus and demands on food safety have increased enormously and this does not seem to slow down. This focus and these demands does also expand to include materials to come into contact with food stuff (food contact materials) such as adsorbents used in CO<sub>2</sub> production.

This is perhaps best exemplified by the still increasing attention and expanded introduction of ISO 22000, ISO 220002, FSSC 22000 or similar certification schemes for food safety systems.

Niels Zöga Rytter Larsen is one of the most experienced engineers at Pentair Union Engineering within this area. He

is in charge of all tests made both internally at our own laboratory as well as tests made by external laboratories. Niels elaborates; "From customers around the globe we experience needs for documenting that their adsorbents used in CO<sub>2</sub> production are safe and support compliance with various food safety regulations. However until now, the adsorbents available on the market have seldom had the quality or documentation to satisfy the increasingly demanding requirements."



## Carbonblends and Puriblends comply with the strictest requirements

We are therefore happy to announce that our adsorbents, we deliver with and for all Pentair Union Engineering CO<sub>2</sub> plants, are tested and documented to comply with one of the strictest set of requirements on food contact materials, namely the European Regulation (EC) No 1935/2004.

Among the fulfilled requirements under EC 1935/2004 are; traceability, batch con-

trol and documentation throughout the entire production chain, compliance with good manufacturing practices (Regulation (EC) No 2023/2006), continuous sampling and analysis throughout the manufacturing, storage of batch samples for later re-analysis, adequate quality control systems, qualifications of the involved personal, and of course the technical quality of the final products.

***"Our adsorbents comply with one of the strictest set of requirements on food contact materials"***

Niels concludes: "We are of course very content with what we have achieved and we will continue testing new adsorbents. Adsorbents are core products in all CO<sub>2</sub> plants – and it is not irrelevant which adsorbent you choose, as some products are more efficient in removing specific impurities over others and the selection should of course never compromise food safety.

We are always looking for new and improved adsorbents to improve the CO<sub>2</sub> plant performance. This is our passion and this is why we have obtained the position we have".

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