

N°1409 / KN

TOPIC(s) : Biomass conversion / Industrial chemistry

Creating value through sustainability driven innovation

AUTHORS

Dirk KUPPERT / CLARIANT, G 860, B 222 INDUSTRIEPARK HÖCHST, FRANKFURT AM MAIN

PURPOSE OF THE ABSTRACT

Our climate gives us increasing and alarming signals of detrimental changes thus governments have set ambitious targets with tight timelines for moving towards more sustainability, stronger greenhouse gas reduction and a pronounced circular economy.

Clariant is committed to fostering the transition to a sustainable bio economy and to ambitious SBTi 1) -conforming carbon reduction targets: By 2030, we want to reduce CO₂ emissions by -40% for scope 1 & 2 and by 14% for scope 3, compared to 2019 base. Altogether these will require and also provide a great opportunity for a range of innovative chemical products and processes. Three different approaches will be covered in this presentation addressing the customer needs for efficient sustainability improvements as well as targeting new performance profiles:

- The new Vita range of non-ionic surfactants produced with bio-based ethylene oxide can help save up to 85% of CO₂ emissions compared to their fossil counterparts and can be easily formulated into existing formulations as renewable drop-ins.
- American Chemistry Council (ACC) Sustainability Leadership Award 2021 winning sugar based glucamide surfactants show significantly lower CO₂ emission profiles than other widely used mild surfactants for Personal Care & Cleaning products. They offer sustainability benefits on top of powerful foaming and cleaning properties.
- Clariant's sunliquid® uses innovative biotechnology to turn straw and other agricultural residues into cellulosic ethanol. This advanced biofuel plays an important role in decarbonizing the transport sector.

With passionate people, leading-edge operations, and innovative solutions Clariant strives to enable a sustainable future for everyone: Greater chemistry - between people and planet.

1) SBTi = Science based Targets initiative

FIGURES



FIGURE 1

Vita range surfactants

Fully segregated and 100% bio-based non-ionic surfactants

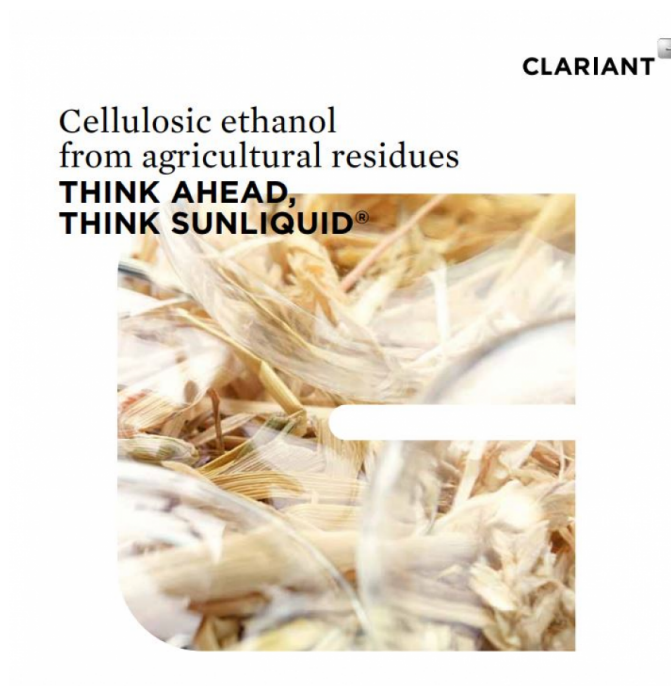


FIGURE 2

Ethanol from Straw

Agricultural residues as non food competing source for ethanol

KEYWORDS

Innovation | Sustainability | Surfactants | Bio based raw material

BIBLIOGRAPHY