

# E20 FUEL – A SIGNIFICANT CONTRIBUTION TO SUSTAINABLE MOBILITY

Liquid biofuels are an indispensable part of every fuel strategy today, as the transport sector faces the challenge of further minimising CO<sub>2</sub> emissions while at the same time reducing the consumption of valuable resources such as petroleum. Alternative biofuels can contribute towards greater sustainability in the transport



sector in the short and medium term. In this context, environmental protection and the reduction of fossil imports are equally as important as technical performance capabilities and the preservation of our food supplies.

Current Mercedes-Benz BlueDIRECT petrol engines are compatible with E20 fuel.

Further information is available at  
[www.stroh-im-tank.de](http://www.stroh-im-tank.de)



Should you have any questions or require information about the project, please call the following telephone number:  
**+49 (0)89 71 06 61-180** - Ms Söttl, Clariant

[www.sunliquid.com](http://www.sunliquid.com)  
[www.haltermann.com](http://www.haltermann.com)  
[www.mercedes-benz.de](http://www.mercedes-benz.de)

**CLARIANT** 



**Mercedes-Benz**

# STRAW IN YOUR TANK

A PILOT PROJECT BY  
CLARIANT, HALTERMANN AND MERCEDES-BENZ



# NEW BIOFUEL BASED ON AGRICULTURAL RESIDUES

Pilot project by Clariant, Haltermann and Mercedes-Benz protects the environment and conserves foodstuffs

- The sunliquid20 premium-grade fuel containing 20% cellulosic ethanol obtained from straw meets the highest requirements in terms of fuel quality and performance.
- The high-grade second-generation biofuel is based on agricultural waste and protects the environment without competing with food production.
- Bioethanol produced from straw cuts greenhouse gas emissions by 95% in comparison to fossil fuel.
- The current Mercedes-Benz BlueDIRECT petrol engines are already compatible with E20 fuel today.

# A PILOT PROJECT IS GATHERING MOMENTUM

Clariant, Haltermann and Mercedes-Benz have joined forces to bring a new sustainable and high-grade fuel to Germany's roads. The aim was to develop an environment-friendly product which can compete with any premium-grade fuel and whose production process is cost-efficient, minimises greenhouse gas emissions and does not interfere with the cultivation of foodstuffs in any way.

The current BlueDIRECT petrol engines from Mercedes-Benz are among the first engines which can run on 20% ethanol.

## **sunliquid20: simple idea, sophisticated process**

sunliquid20 is a premium-grade petrol containing 20% cellulosic bioethanol which is obtained from straw. The sunliquid® process has been developed and patented by specialty chemicals group Clariant, which produces the bioethanol at a demonstration plant.

The final product is then created by fuels specialist Haltermann – an innovative E20 fuel which could soon be setting standards throughout Europe. Its high octane rating (RON) of over 100 enables optimum efficiency.

### **Why ethanol from straw?**

Worldwide, vast quantities of agricultural residues such as wheat straw go unused. Cellulosic ethanol is a second-generation bioethanol which is produced exclusively from agricultural waste such as wheat straw. This means that no foodstuffs or feedstuffs are used in production of the fuel. Cellulosic ethanol reduces CO<sub>2</sub> emissions by some 95% in comparison to fossil fuel. Cellulosic ethanol could cover around one quarter of Europe's fuel needs forecast for 2020 - a crucial step towards sustainable mobility.