



IN THIS ISSUE

**	SUSTAINABILITY	1
R M	CERTIFICATIONS	
<u> </u>	GLYCERINE	2
9	MARKET	
	INDUSTRIAL	3
$\langle\!\langle\!\rangle$	SUBSTRATES	
吕	GLYCERINE BASED	3
	SUBSTRATES	
■△	LABORATORY	4
	ANALYSIS	
(SS)	MEET UP	4
	WITH MBP	

Editorial

By Jens Søgaard Jacobsen

MBP Sales Director and Partner

Biogas potential, industrial waste, food waste, micro plastics, animal by-products, glycerine...

There are many management challenges at an anaerobic digestion plant. At MBP Solutions, we aim to be your competent partner. We will provide clear answers about the origin of by-products, and in many cases, we will be able to supply by-products at a constant and reliable flow, which is the key to making biogas plants work with a continuous and optimized production of gas.

In this newsletter, we introduce our new laboratory services, ReSource Labs, which has a special focus on analysis relevant to the biogas sector. With an independent laboratory based in Norway, ReSource Labs is a co-operation between ReSource International, an environmental engineering company based in Iceland and MBP Solutions Ltd.

ReSource International is experienced in operational management of anaerobic digestion plants as well as landfill gas production and wastewater treatment plants, whilst MBP Solutions has been supplying feedstock with high gas potential to the biogas industry for the past 19 years. We are looking forward to increasing the quality of the relationships we have with the biogas industry in the coming years.

Sustainability Certifications

Europe's commitment to meeting CO2 reduction targets required systems to ensure that these targets did not lead to unintended negative environmental effects. The EU's Renewable Energy Directive (RED) approved a number of voluntary schemes.



MBP achieved certification to the ISCC standard in 2012, and in 2014, we also achieved certification in compliance with the Roundtable on Sustainable Biomaterials (RSB).



If you are planning to use Biomethane for transportation fuel, MBP ensures compliance with RED requirements for sustainability certification through our ISCC and RSB sustainability certifications.



The Volatile Glycerine Market

Glycerine, or glycerol, has become a very important part of many biogas plant's feedstock strategies. The reason for this is that glycerine gives a lot of gas, can be relatively cost efficient, works quickly, and is quite energy dense. Glycerine is typically a by-product from either the biodiesel industry or the production of fatty acids.

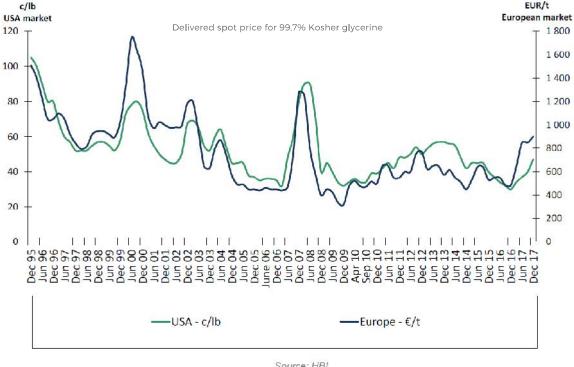
Normally the glycerine is refined into technical or pharma qualities, but due to the biodiesel industry's high dependency on policies, there have been many situations relating to oversupply as well as undersupply. In spring 2018, we face a global

undersupply of crude alycerine for refining. This undersupply will inevitably lead to a lack of volume available for biogas production. We need only go back to the autumn of 2016 to remember the last period where there was plenty of relatively cheap glycerine available in the market. The problem for the biogas industry is that the glycerine refining industry can easily pay far higher prices for good quality raw material, whilst the refined glycerine prices are currently close to 1000 EUR/t. So, what should the biogas plants do? As the normal crude glycerines are not affordable, it is necessary to

concentrate on the more difficult qualities.

Some plants have success in taking glycerines with high levels of sulphur, some are able to empty flexibags in 20' containers, which arrive with semi-solid glycerine that requires heating before it becomes liquid. Some Biogas plants can get permissions to take glycerine with a Cat 1, a Cat 3 or even with a waste classification.

MBP Solutions has access to different qualities of alvcerine and we are interested in discussing the possibilities available to you.



Source: HBI

15.000

200.000

25 FACTORIES 9

90



Industrial Substrates

Typically, biogas plants are fed with biomass deriving from agricultural crops, agricultural residues, animal dejections, organic fraction of municipal waste, waste-residue-by-products and co-products from processing industries. In most cases, waste-residue-by-products and co-products from processing industries represent a lower proportion of the total substrate portfolio; however, they are generally a proportion representative of significant gas production.

With over 200.000 tonnes of industrial waste-residue by-products and co-products distributed on an annual basis, MBP is a dominant player in this market segment and a reference supplier in all Europe, as well as in the USA and Canada biogas markets. We supply substrates varying from food and confectionary preparation residues, glycerine and glycerine processing residues from

various industries working with biological raw material.



Before committing to selling, MBP conducts an evaluation of each substrate. This includes:

- -A technical evaluation of the product, including potential gas generation, process inhibition risks, contaminants and sulphur levels to fit with the existing diet of the biogas plant
- -A logistical assessment, both internal to the biogas plant (storage size, pumping capabilities, heating

and insulation of the storage, injection technology) as well as external (costs and methods to supply the specific substrate to the specific plant)

-A compliance study to evaluate if the intended substrate complies with all national and local rules governing the individual plant (health and safety, environmental law, plant approval restrictions, animal by-products directive). Due diligence is carried out in order to reassure the receiving biogas plant that the product is free of risk for the intended use and is available in the required quantities and price levels over time.

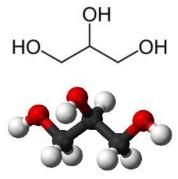
The advantage of working with MBP is the comfort that critical aspect as legal compliance, logistics, product quality and supply security are competently covered.

Glycerine Based Substrates

MBP is focused on sourcing glycerine-based substrates from suppliers around the world.

As the prices of crude glycerine 80% are very high in the current market, MBP is working with companies offering products with lower glycerine content or specifications that are difficult to handle. Today we handle products classified as waste, dangerous goods and animal by-product cat 1, as well as products with high sulphur content.

At MBP we have been delivering glycerol for anaerobic biogas since 1999 and we have gathered a lot of practical experience with management of quality, legal compliance and supply chain.



Structural chemical formula and model of glycerine molecule

Development of Knowledge and Analytical Services

ReSource Labs AS proposes an innovative approach to environmental expertise and residual resource management. We provide laboratory analytical services with a strong focus on organic by-products and waste streams. Services are intended for

industries in need of expertise and residual resources knowledge. Industries such as production, municipalities and agro sector farms would benefit. Customers benefit from improved focus and

operations towards their

environmental goals, as

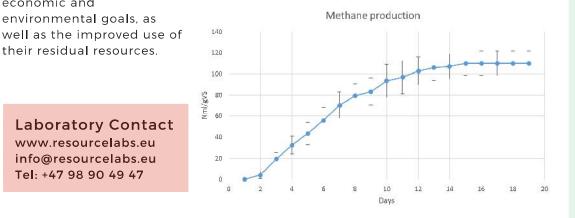
their residual resources.

economic and

Laboratory Contact www.resourcelabs.eu info@resourcelabs.eu Tel: +47 98 90 49 47



For the biogas industry, ReSource Labs has developed a group of analytical methods to evaluate substrates' potential for biogas applications. It is possible to support customers in validating their products for legal compliance and efficiently pricing them for energy production.



Meet up with MBP

MBP participates in exhibitions and conferences, which are great opportunities to meet with us and discuss how we can improve the handling of your by-products.



Skandinavias Biogasskonferanse April 25-26, 2018 Fredrikstad, Norway



AOCS Annual Meeting May 6-9, 2018 Minneapolis, USA



Vitafoods Europe May 15-17, 2018 Geneva, Switzerland



Supply Side West November 6-10, 2018 Las Vegas, USA



Contact us

Switzerland Neuchatel (HQ) +41 32 720 05 20

Canada Halifax +1 902 482 8072

Denmark Silkeborg +45 45 82 71 66

Italy Milano +41 32 720 0520

Indonesia +62 821 2446 4074

Netherlands Gouda +31 182 51 11 16

Norway Greåker +47 69 97 12 20

Sweden Staffanstorp +46 46 12 00 50

United Kingdom Skipton +44 1756 791 203

USA Minneapolis +1 952 456 8720

info@mbpsolutions.com www.mbpsolutions.com