

# LNG omadused, transport ja hoiustamine

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Tegevjuht

### Product Range

- Oxygen, nitrogen, argon
- Acetylene and other fuel gases
- LNG
- Welding process shielding gases
- Carbon monoxide
- Hydrogen
- Medical gases
- Rare gases
- Ultra-high purity gases
- Gas application processes and services



## Koostis:

Metaan	~ 90%
Etaan	~ 9%
Propaan	~ 0,6%
LNG k.p.	-163 °C
Vedel vs. gaas	1/600 liiter

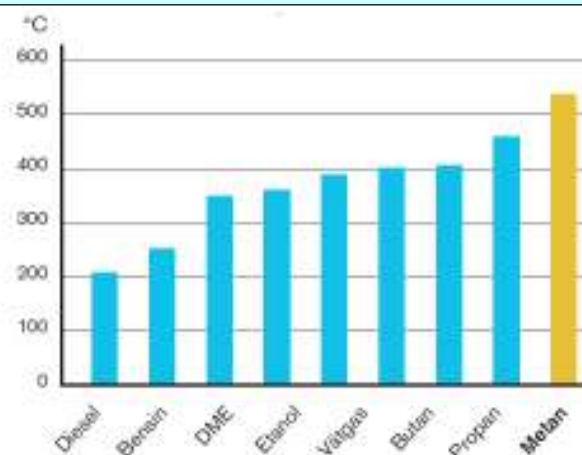
## Ohutus:

Tihedus (gaas)	0,78 kg/Nm <sup>3</sup>
Tihedus (LNG)	~0,45 ton/m <sup>3</sup>
Süttivus õhus	4,7-14,4% (gaasiline)
Mittemürgine	
Lõhnatu- lõhnastatav	

## Põlemine:

Kütteväärtus	10,73 kWh/Nm <sup>3</sup> 13,7 kWh/kg (NCV) 15,2 kWh/kg (GCV)
Jääkained vs. õliga:	
CO <sub>2</sub>	20-30% lower
NO	75% lower
Väävel & osakesed	low

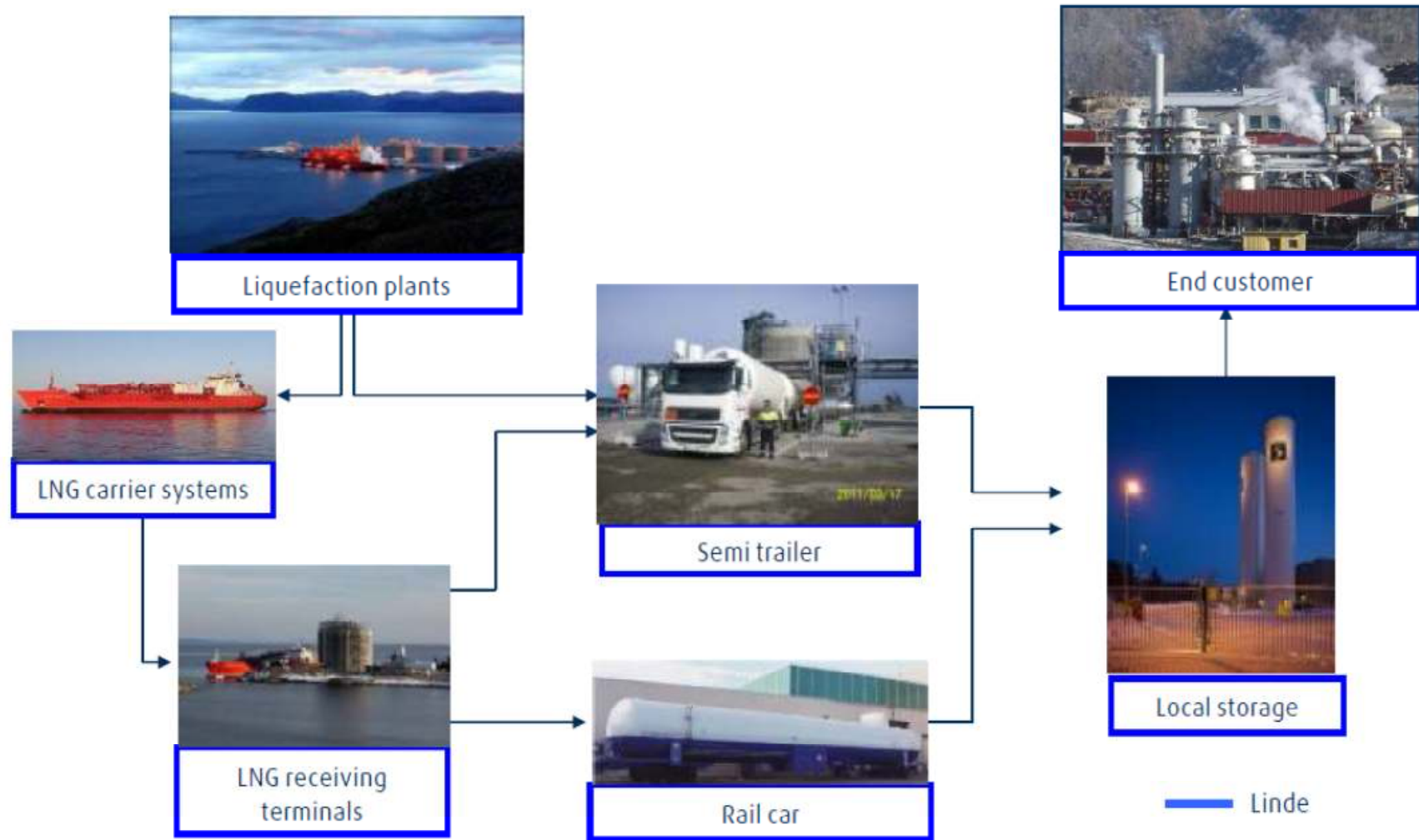
## Süttimistemperatuur:



Termisk tündtemperatuur for olika ämnen.



# LNG tarneahel



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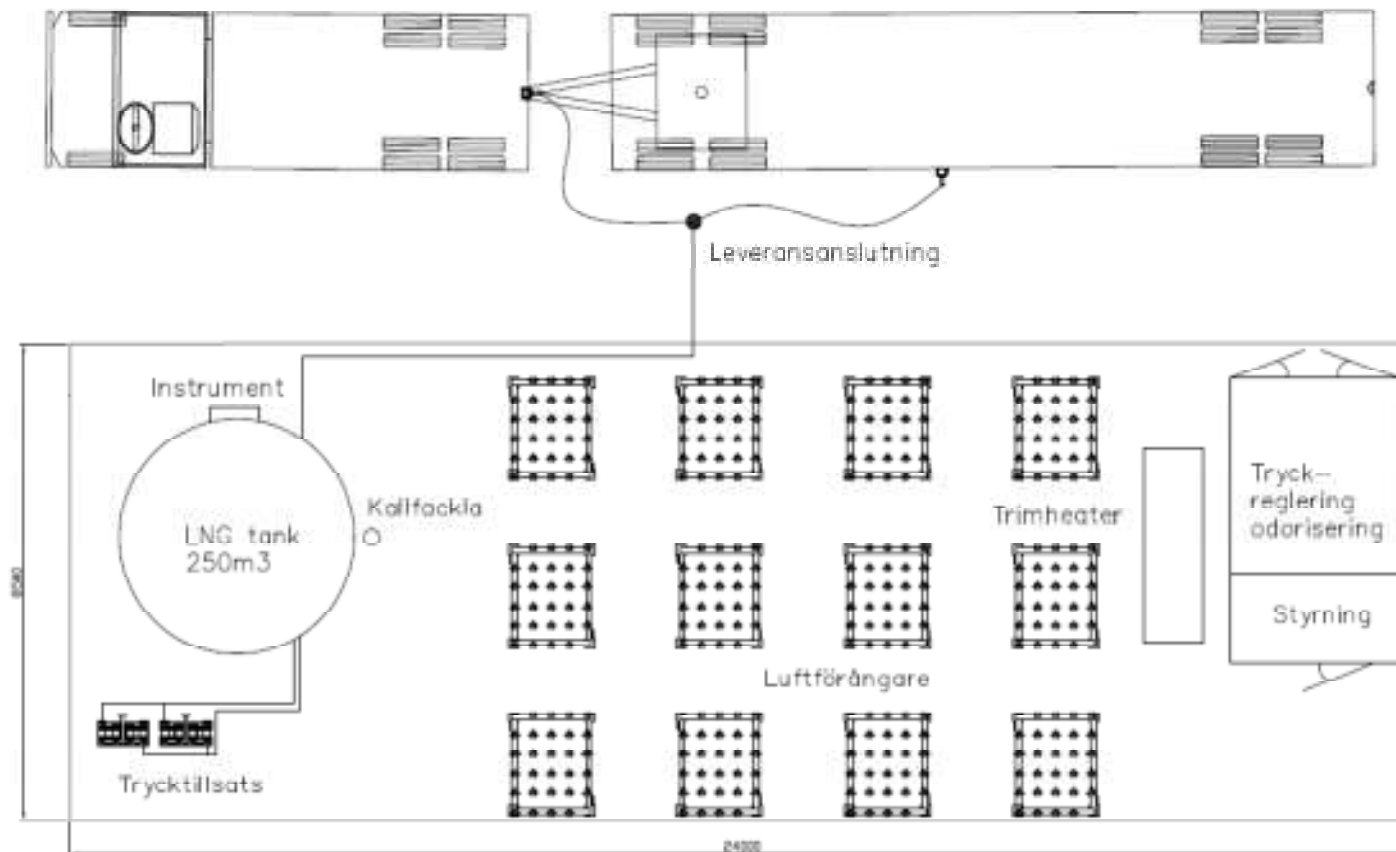
# LNG keskus õhkaurustitega

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# LNG keskus õhkaurustitega, skeem

Tanklayout B



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# LNG keskus vesi-õhk aurustitega

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# LNG transport

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# Suur tähelepanu ohutusel

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AGA

Boiling point – 162 deg C , ie cryogenic

Protection clothes, gloves, boots etc

1 m<sup>3</sup> liquid = 600 Nm<sup>3</sup> gas

Colorless

Odorless

Ignites in a 5-15 % concentration

Ignition temperature > 500 deg C

Almost invisible fire when igniting

Burns slowly

Use fire extinguisher or foam



Source: [worldofmolecules.com/fuels/methane.htm](http://worldofmolecules.com/fuels/methane.htm)

# Küsimused?

# Tänan!

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