

# Natural water

## Supplier Panel

Tuesday, 17 March 2015 from 15:30 to 17:00



solutions for europe

**natural refrigerants**

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# Water the perfect refrigerant



- Physical properties
  - 1. Environmentally benign (Low GWP, no ODP, biodegradable) ☺
  - 2. Vapor pressure curve (reasonable pressures for application) ☺
  - 3. Low viscosity ☺
  - 4. Distinct miscibility with lubricants N/A
  - 5. Good water solubility N/A
  - 6. High electrical breakdown resistance ☺
- Chemical properties
  - 1. High chemical stability ☺
  - 2. Low flammability ☺
  - 3. High chemical indifference ☺
- Physiological properties
  - 1. No toxicity ☺
  - 2. noticeable smell N/A
- Economical properties
  - 1. High energetic coefficient of performance ☺
  - 2. Volumetric refrigeration capacity ☺
  - 3. Circulating refrigerant mass ☺
  - 4. Availability ☺
  - 5. Cost ☺

Water

# High energy efficiency of the eChiller



Cold water out / in [°C]	Ref. capacity [kW] @ 40°C ambient	Annual COP (Frankfurt)
07/12	28	12,2
10/15	33	15,3
12/18	36	17,5
16/22	45	26,0