

# Cooling & Refrigeration

## Five Fundamental Terms



Students, professors, engineers, experts, technicians, researchers, scientists, industrialists, managers, businessmen, policy makers – all professionals in the field of low-temperature technologies and economies – are called and strongly recommended to comply strictly with the 5 internationally established definitions, endorsed by the *International Institute of Refrigeration* (IIR) and the *American Society of Heating, Refrigerating and Air Conditioning Engineers* (ASHRAE):

### Cooling

- (1) Removal of heat, usually resulting in a lower temperature and/or phase change.
- (2) Lowering temperature.

### Refrigeration

- (1) Cooling of a space, substance or system to lower and/or maintain its temperature below the ambient one (removed heat is rejected at a higher temperature).
- (2) Artificial cooling.

### Chilling

Cooling of a substance without freezing it.

### Freezing

Solidification phase change of a liquid or the liquid content of a substance, usually due to cooling.

### Cold Chain

Series of actions and equipment applied to maintain a product within a specified low-temperature range from harvest/production to consumption.

**Correct use of the above terms in all public releases, books, periodicals or policy documents will be a key testimonial for your up-to-date expertise in the refrigeration, cryogenic, HVAC and associated sectors.**

References:

\* International Dictionary of Refrigeration: [dictionary.iifir.org](http://dictionary.iifir.org)

\* ASHRAE Terminology: [www.ashrae.org/technical-resources/free-resources/ashrae-terminology](http://www.ashrae.org/technical-resources/free-resources/ashrae-terminology)



Refrigeration-related professional bodies, which implement and support the above universal definitions, are welcome to inform IIR in order to include their logos in the next edition of this announcement:

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