
**Petroleum and natural gas industries —
Characteristics of LNG, influencing the
design, and material selection**

*Pétrole et industries du gaz naturel — Caractéristiques du GNL
influant sur la conception et le choix des matériaux*

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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviated terms	2
5 General characteristics of LNG	2
5.1 General	2
5.2 Properties of LNG	2
5.2.1 Composition	2
5.2.2 Density	2
5.2.3 Temperature	3
5.2.4 Viscosity	3
5.2.5 Examples of LNG	3
5.3 Physical properties	3
5.3.1 Physical properties of boil-off gas	3
5.3.2 Flash	4
5.3.3 Spillage of LNG	4
5.3.4 Expansion and dispersion of gas clouds	4
5.3.5 Ignition	5
5.3.6 Pool fires	5
5.3.7 Development and consequences of pressure waves	5
5.3.8 Containment	5
5.3.9 Rollover	5
5.3.10 RPT	6
5.3.11 BLEVE	6
6 Health and safety	6
6.1 General	6
6.2 Exposure to cold	7
6.2.1 Warning notice	7
6.2.2 Handling, cold contact burns	7
6.2.3 Frostbite	7
6.2.4 Effect of cold on the lungs	7
6.2.5 Hypothermia	7
6.2.6 Recommended protective clothing	7
6.3 Exposure to gas	7
6.3.1 Toxicity	7
6.3.2 Asphyxia	7
6.4 Fire precautions and protection	8
6.5 Colour	8
6.6 Odour	8
7 Materials of construction	8
7.1 Materials used in the LNG industry	8
7.1.1 General	8
7.1.2 Materials in direct contact	8
7.1.3 Materials not in direct contact under normal operation	9
7.1.4 Other information	9
7.2 Thermal stresses	10
Bibliography	11

Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*.

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Petroleum and natural gas industries — Characteristics of LNG, influencing the design, and material selection

1 Scope

This International Standard gives guidance on the characteristics of liquefied natural gas (LNG) and the cryogenic materials used in the LNG industry. It also gives guidance on health and safety matters. It is intended to act as a reference document for the implementation of other standards in the liquefied natural gas field. It is intended as a reference for use by persons who design or operate LNG facilities.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies

EN 1473, *Installation and equipment for liquefied natural gas — Design of onshore installations*

NFPA 59A, *Standard for the production, storage, and handling of liquefied natural gas (LNG)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 boil-off gas

gas generated during the storage or handling of volatile liquefied gases

3.2 condensate

hydrocarbon liquid that forms by condensation from natural gas, consisting primarily of pentanes (C₅H₁₂) and heavier components

Note 1 to entry: There will be some propane and butane dissolved within the mixture.

3.3 liquefied natural gas

LNG

colourless and odourless cryogenic fluid in the liquid state at normal pressure composed predominantly of methane which can contain minor quantities of ethane, propane, butane, nitrogen, or other components normally found in natural gas

3.4 liquefied petroleum gas

LPG

gaseous hydrocarbons at normal temperatures and pressures, but that readily turns into liquids under moderate pressure at normal temperatures, e.g. propane and butane

3.5 natural gas liquids

NGL

liquid hydrocarbons, such as ethane, propane, butane, pentane, and natural gasoline, extracted from field natural gas