



**CGA G-19—2017**  
**GUIDELINE FOR NATURAL**  
**GAS SAFE HANDLING AND**  
**OPERATIONS**

**FIRST EDITION**

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## 1 Introduction

This publication contains general information about the properties, transportation, storage, handling, and use of liquefied natural gas (LNG) and compressed natural gas (CNG). It is intended to provide guidance to anyone seeking more information regarding natural gas.

## 2 Scope

This publication is intended for natural gas users, shippers, carriers, distributors, equipment designers, safety administrators, and anyone seeking an introduction to natural gas. If more detailed or specialized information is required, consult your supplier. The information in this publication is intended to complement federal, state, provincial, territorial, local, and insurance company safety requirements.

This publication addresses the following:

- safe use and handling of products and systems that store, vaporize, transfer, and handle natural gas;
- hazards and safeguards associated with natural gas; and
- training of personnel involved with the handling of natural gas.

Natural gas is a combination of several different gases in differing concentrations. The guidelines contained in this publication assume that pipeline quality natural gas as defined in this publication is in use. See Table 1.

Many standards exist for the design, construction, installation, inspection, and examination of natural gas equipment and facilities. A complete description of the applicability of each standard is beyond the scope of this publication. See Section 14 for a list of additional references.

Where an applicable standard does exist, its rules shall be followed in conjunction with applicable local codes and regulations.

## 3 Definitions

For the purpose of this publication, the following definitions apply.

### 3.1 Publication terminology

#### 3.1.1 Shall

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

#### 3.1.2 Should

Indicates that a procedure is recommended.

#### 3.1.3 May

Indicates that the procedure is optional.

#### 3.1.4 Will

Is used only to indicate the future, not a degree of requirement.

#### 3.1.5 Can

Indicates a possibility or ability.

### 3.2 Technical definitions

#### 3.2.1 Asphyxiation

To become unconscious or die from the lack of oxygen.