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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 27862-2011

**Testing method for classification of chemical hazards -- Fire
potential and oxidizing ability of gases and gas mixtures**

化学品危险性分类试验方法 气体和气体混合物燃烧潜力和氧化能力

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses the translation method, identical with ISO 10156:2010 "gases and gas mixtures by measuring fire potential and oxidizing energy Force the selection of cylinder valve exhaust port. " this standard made the following editorial changes.

--- Name to "chemical hazard classification of gases and gas mixtures - Test methods of fire potential and oxidizing ability." this standard is managed by the National Standardization Technical Committee chemicals dangerous (SAC/TC251) and focal points.

This standard was drafted. Shandong Entry-Exit Inspection and Quarantine of Jiangsu, the National Quality Supervision and Inspection of dangerous chemicals center.

Introduction

ISO 5145 "vent gas cylinder valve and the gas mixture selection and sizing" and other similar criteria established decision-cylinder outlet Practical criteria joints. These parameters are fixed based on the physical and chemical properties of the gas. Air flammability and oxidation potential were special consideration.

For pure gases, there is a lot of data in the literature, the difference data depends on the different test methods, and for mixed gas of literature Data is often incomplete or can not be found. This is the difficulty of the standard applications.

The primary objective of this standard is to eliminate the uncertainty of the literature exists, and supplementary data on mixed gas already exist.

In addition to the selection of cylinder valve exhaust port outside the ISO 10156 later used for other purposes, such as the GHS classification and label Sign system (GHS) for the international transport of dangerous substances and precautionary labeling rules establishing flammability and oxidizing potential data.

The second edition of the standard revision began in 2006, the previous version and ISO 10156-2 merged, updated and flammability Oxidizing data.

Chemical hazard classification test method Gases and gas mixtures of fire potential and oxidizing ability

1 Scope

This standard specifies the test method for gas or gas mixture in air under atmospheric conditions of flammable and oxidizing ability.

This standard applies to the classification of gases and gas mixtures, including the selection of cylinder valve exhaust port.

This standard does not apply to other gases and gas mixtures under ambient pressure and temperature.

2.1 Terms and Definitions

The following terms and definitions apply to this document.

2.1.1

Gas or flammable gas air mixture gas or gas mixture flammable in air Under atmospheric pressure and 20 °C in the gas or gases in the air can ignite the mixture.

2.1.2

Air flammable limit lower flammability limit in air A homogeneous mixture of air and the lowest concentration at the beginning of flame propagation gas or gas mixture.

Note: The lower limit of the combustible measured at atmospheric conditions.

2.1.3

Air combustible ceiling upper flammability limit in air Homogeneous mixture of air and gas or gas to flame spread was just beginning to maximum concentration.

NOTE: Combustible high limit measured at atmospheric conditions.

2.1.4

Flammable range flammability range Flammable concentration range between the lower limit and high limit.

NOTE: The standard "flammable range" also known as "explosive range." 2.1.5

Gas or gas mixture more oxidizing than air gas or gas mixture is more than the air oxidation of at atmospheric pressure, the oxygen content of the oxidant is higher than 23.5%, it can be maintained in the combustion gas or gas mixture.

2.2 Symbol

The following symbols apply to this document.

A_i . mole fraction of the gas mixture of flammable gas B_k . mole fraction of the inert gas in the mixed gas C_i . Coefficient of oxygen fraction F_i . mixed gas in subparagraph i flammable gas l_k . k -th gas mixture of inert gas Number of mixed gas flammable gases. n