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1 Introduction

This publication provides guidance for the safe water transport of portable tanks and multiple element gas containers (MEGCs) containing industrial, medical and specialty gas and liquefied gas products.

This publication addresses product characteristics, general safety aspects, preparation for shipment, stowage onboard ship, transport of containers and emergency response.

Normally during sea transport a skilled operator does not accompany these containers and this publication has been written for the guidance of parties involved in their preparation and subsequent transportation by sea. Compliance with these guidelines will, under normal conditions, help ensure safe transport by sea.

2 Scope and Purpose

2.1 Scope

This publication applies to the transport by sea of portable tanks and MEGCs that are used in the industrial, medical and specialty gases industry for the worldwide transport of gases and liquefied gases in bulk.

2.2 Purpose

To provide guidelines for the safe transport of insulated and noninsulated portable tanks and MEGCs by sea, to reduce the potential for unintentional releases of the contents for the duration of a defined journey and to recommend actions in case of an accidental release.

3 Definitions

3.1 Compressed gas

A gas which when packaged under pressure for transport is entirely gaseous at –46 °F (–50 °C); this category includes all gases with a critical temperature less than or equal to –46 °F (–50 °C).

3.2 Container

A container is designed for multimodal use and is fitted with devices permitting its ready stowage and handling particularly when being trans-loaded from one means of transport to another. A container is any portable tank or MEGC that meets the definition of a "container" within the terms of the International Convention for Safe Containers (CSC).

3.3 Liquefied gas

A gas which when packaged under pressure for transport is partially liquid at temperatures above –58 °F (–50 °C). A distinction is made between:

- high pressure liquefied gas, which is a gas with a critical temperature between –58 °F and 149 °F (–50 °C and 65 °C); and
- low pressure liquefied gas, which is a gas with a critical temperature above 149 °F (65 °C);.

3.4 Refrigerated liquefied gas

A gas that when packaged for transport is made partially liquid because of its low temperature.

3.5 Portable tank

A multimodal tank having a capacity of more than 450 L fitted with service equipment and structural equipment necessary for the transport of refrigerated and nonrefrigerated liquefied gases. The portable tank shall be capable of being filled and discharged without the removal of its structural equipment. It shall possess stabilizing members external to the shell, and shall be capable of being lifted when full. Road tank vehicles, rail tank-wagons, nonmetallic tanks and intermediate bulk containers (IBCs) are not considered to fall within the definition for portable tanks.