

## **Cryogenic vessels - Large transportable non-vacuum insulated vessels - Part 3: Operational requirements**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14398-3:2003 sisaldab Euroopa standardi EN 14398-3:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 17.09.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14398-3:2003 consists of the English text of the European standard EN 14398-3:2003.</p> <p>This document is endorsed on 17.09.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This European Standard specifies operational requirements for large transportable non vacuum insulated cryogenic vessels of more than 1000 l volume. This European Standard applies to vessels designed for cryogenic fluids specified in prEN 14398-1.</p>	<p><b>Scope:</b> This European Standard specifies operational requirements for large transportable non vacuum insulated cryogenic vessels of more than 1000 l volume. This European Standard applies to vessels designed for cryogenic fluids specified in prEN 14398-1.</p>
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**ICS** 23.020.40

**Võtmesõnad:** coolers, emergency equipment, gas cylinders, macroscopic analysis, pressure vessels, safety, safety devices, sample surveys, specifications, sto, surveillance (approval), temperature, test time- limits, testing, toughness, transport boxes, visual inspection (testing)

ICS 23.020.40

English version

## Cryogenic vessels - Large transportable non-vacuum insulated vessels - Part 3: Operational requirements

Réipients cryogéniques - Grands réipients transportables  
non isolés sous vide - Partie 3: Exigences de service

Kryo-Behälter - Große ortsbewegliche, nicht vakuum-  
isolierte Behälter - Teil 3: Betriebsanforderungen

This European Standard was approved by CEN on 10 July 2003.

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## Foreword

This document (EN 14398-3:2003) has been prepared by Technical Committee CEN/TC 268 "Cryogenic vessels", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2004, and conflicting national standards shall be withdrawn at the latest by February 2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports the objectives of the framework Directives on Transport of Dangerous Goods.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports the objectives of the framework Directives on Transport of Dangerous Goods.

This European Standard has been submitted for reference into the RID and/or in the technical annexes of the ADR. Therefore in this context the standards listed in the normative references and covering basic requirements of the RID/ADR not addressed within the present standard are normative only when the standards themselves are referred to in the RID and/or in the technical annexes of the ADR.

EN 14398 consists of the following parts under the general title, *Cryogenic vessels – Large transportable non vacuum insulated vessels* :

- *Part 1 : Fundamental requirements;*
- *Part 2 : Design, fabrication, inspection and testing;*
- *Part 3 : Operational requirements.*

The annexes A and B are informative.

This document includes a Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

Elements of this standard support the requirements of the framework Directives on Transport of Dangerous Goods and other international, national or local requirements.

Large transportable cryogenic vessels are often partly equipped by the manufacturer, but can be installed or re-installed by another party, such as the operator user or owner. For this reason some of the scope of this European Standard, which includes putting into service, inspection, filling, maintenance and emergency procedure overlaps with some of the Parts 1 and 2 of EN 14398.

Operational requirements for the usage of these vessels on public road, rail, sea and air are not covered in this standard, but are defined in other international, national or local requirements.

## 1 Scope

1.1 This European Standard specifies operational requirements for large transportable non vacuum insulated cryogenic vessels of more than 1000 l volume.

1.2 This European Standard applies to vessels designed for cryogenic fluids specified in EN 14398-1.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12300, *Cryogenic vessels - Cleanliness for cryogenic service*.

EN 14398-1:2003, *Cryogenic vessels – Large Transportable non-vacuum insulated vessels – Part 1: Fundamental requirements*.

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 14398-1:2003 and the following apply.

### 3.1

#### **putting into service**

operation by which a vessel is prepared to be used. It applies to either a new vessel being used for the first time or an existing vessel being returned to service

### 3.2

#### **filling**

operation by which a transportable vessel undergoes a prefill check, filling with a cryogenic fluid and an after fill check

### 3.3

#### **withdrawal**

process by which product is taken from a vessel to the connected supply system

### 3.4

#### **outdoor location**

location outside of any building or structure and not enclosed by more than two walls

### 3.5

#### **underground location**

area or room whose ground or floor is on all sides sufficiently lower than the adjacent ground surfaces

### 3.6

#### **vessel**

vessel means large transportable cryogenic vessel as defined in EN 14398-1