ICS 13.230 TECHNICKÁ NORMALIZAČNÁ INFORMÁCIA Február 2023

TNI	**Výbušné atmosféry Prevencia a ochrana pred výbuchom Usmernenie k inertizácii na prevenciu výbuchov**	**TNI CEN/TR 15281 38 9701**

Potentially explosive atmospheres - Explosion prevention and protection - Guidance on inerting for the prevention of explosions

Táto technická normalizačná informácia obsahuje anglickú verziu CEN/TR 15281:2022.
This Technical standard information includes the English version of CEN/TR 15281:2022.

Táto technická normalizačná informácia bola oznámená vo Vestníku ÚNMS SR č. 01/23

obsahuje farebné strany

136189

TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER REPORT

CEN/TR 15281

October 2022

ICS 13.230

Supersedes CEN/TR 15281:2006

English Version

Potentially explosive atmospheres - Explosion prevention and protection - Guidance on inerting for the prevention of explosions

Atmosphères explosibles - Prévention des explosions et protection contre celles ci - Guide de l'inertage pour la prévention des explosions

This Technical Report was approved by CEN on 9 October 2022. It has been drawn up by the Technical Committee CEN/TC 305.

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Ref. No. CEN/TR 15281:2022 E

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European foreword

This document (CEN/TR 15281:2022) has been prepared by Technical Committee CEN/TC 305 "Potentially explosive atmospheres – Explosion prevention and protection", the secretariat of which is held by DIN.

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1 Scope

Inerting is a preventive measure to avoid explosions or fire to happen. By feeding inert gas into a system, which is to be protected against an explosion or a fire, the oxygen content is reduced below a certain limit or completely replaced by an inert gas, depending on the inert gas, on the fuel and the process until no explosion or fire can occur or develop.

Inerting can be used to prevent fire and explosion by reducing the O_2 content.

NOTE Inerting can also be used to prevent and to extinguish smouldering nests and glowing fires which are a primary source of ignition in pulverized fuel storage and handling facilities, substituting air by sufficient inert gas inside the equipment.

The following cases are not covered by the guideline:

— admixture of an inert solid powder to a combustible dust;

— inerting of flammable atmospheres by wire mesh flame traps in open spaces of vessels and tanks;

— firefighting;

— avoiding an explosive atmosphere by exceeding the upper explosion limit of a flammable substance;

— anything related to product quality (oxidation or ingress of humidity) or product losses;

— any explosive atmosphere caused by other oxidizing agents than oxygen.

Other technologies might be used in combination with inerting such as floating screens made of independent collaborative floaters consisting of an array of small floaters non-mechanically linked but overlapping each other in order to form a continuous layer covering the liquid surface.

Product oxidation or evaporation reduction is directly proportional to the surface area covering ratio and quality of the inerting.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13237:2012, *Potentially explosive atmospheres - Terms and definitions for equipment and protective systems intended for use in potentially explosive atmospheres*

EN ISO 28300:2008, *Petroleum, petrochemical and natural gas industries - Venting of atmospheric and low-pressure storage tanks (ISO 28300:2008)*