# STN

### Technológia jadrového paliva Rozpad materiálov obsahujúcich oxid plutoničitý Časť 1: Rozpad práškov oxidu plutoničitého (ISO 18256-1: 2019)

STN EN ISO 18256-1

40 1020

Nuclear fuel technology - Dissolution of plutonium dioxide-containing materials - Part 1: Dissolution of plutonium dioxide powders (ISO 18256-1:2019)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/21

Obsahuje: EN ISO 18256-1:2021, ISO 18256-1:2019

STN EN ISO 18256-1: 2021

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 18256-1

February 2021

ICS 27.120.30

### **English Version**

Nuclear fuel technology - Dissolution of plutonium dioxide-containing materials - Part 1: Dissolution of plutonium dioxide powders (ISO 18256-1:2019)

Technologie du combustible nucléaire - Dissolution des matériaux contenant du dioxyde de plutonium - Partie 1: Dissolution des poudres de dioxyde de plutonium (ISO 18256-1:2019)

This European Standard was approved by CEN on 18 January 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

### EN ISO 18256-1:2021 (E)

Contents	Page
European foreword	3

### **European foreword**

The text of ISO 18256-1:2019 has been prepared by Technical Committee ISO/TC 85 "Nuclear energy, nuclear technologies, and radiological protection" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 18256-1:2021 by Technical Committee CEN/TC 430 "Nuclear energy, nuclear technologies, and radiological protection" 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 August 2021, and conflicting national standards shall be withdrawn at the latest by August 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### **Endorsement notice**

The text of ISO 18256-1:2019 has been approved by CEN as EN ISO 18256-1:2021 without any modification.

## INTERNATIONAL STANDARD

ISO 18256-1

First edition 2019-01

# Nuclear fuel technology — Dissolution of plutonium dioxide-containing materials —

### Part 1:

## Dissolution of plutonium dioxide powders

Technologie du combustible nucléaire — Dissolution des matériaux contenant du dioxyde de plutonium —

Partie 1: Dissolution des poudres de dioxyde de plutonium



STN EN ISO 18256-1: 2021

ISO 18256-1:2019(E)



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Fax: +41 22 749 09 47 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Cont	<b>Tents</b> Pa	ige
Forew	ord	.iv
Introd	uction	<b>v</b>
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Summary of the method	1
5	Apparatus and reagents 5.1 Apparatus 5.2 Reagents	<b>2</b> 2 3
6	Sample dissolution 6.1 Procedure for common plutonium containing materials 6.2 Solution adjustment (optional)	<b>3</b> 3
7	Quality control	6
Biblio	graphy	7

ISO 18256-1:2019(E)

#### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 85, *Nuclear energy, nuclear technologies, and radiological protection*, Subcommittee SC 5, *Nuclear installations, processes and technologies*.

A list of all the parts in the ISO 18256 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.

ISO 18256-1:2019(E)

### Introduction

This document describes a method to dissolve powder samples of plutonium oxide to provide suitable aliquots for subsequent analysis of elemental concentration and isotopic composition.

## Nuclear fuel technology — Dissolution of plutonium dioxide-containing materials —

### Part 1:

### Dissolution of plutonium dioxide powders

### 1 Scope

This document specifies the dissolution of powder samples of plutonium oxide for subsequent determination of elemental concentration and isotopic composition.

#### 2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN