

---

---

**Footwear — Critical substances  
potentially present in footwear  
and footwear components — Test  
method to quantitatively determine  
dimethylformamide in footwear  
materials**

*Chaussures — Substances critiques potentiellement présentes dans  
les chaussures et les composants de chaussures — Méthode d'essai  
pour déterminer quantitativement le diméthylformamide dans les  
matériaux de chaussures*

ISO 16189:2021

<https://standards.iteh.ai/catalog/standards/iso/b1f2f323-935a-463b-ac57-08ba1a15160f/iso-16189-2021>



**iTeh Standards**  
**(<https://standards.itih.ai>)**  
**Document Preview**

[ISO 16189:2021](https://standards.itih.ai/catalog/standards/iso/b1f2f323-935a-463b-ac57-08ba1a15160f/iso-16189-2021)

<https://standards.itih.ai/catalog/standards/iso/b1f2f323-935a-463b-ac57-08ba1a15160f/iso-16189-2021>



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

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  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword.....	iv
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms and definitions.....</b>	<b>1</b>
<b>4 Principle.....</b>	<b>1</b>
<b>5 Reagents.....</b>	<b>1</b>
<b>6 Apparatus.....</b>	<b>2</b>
<b>7 Preparation of sample.....</b>	<b>3</b>
7.1 Sampling.....	3
7.2 Extraction.....	3
<b>8 Determination with GC-MS.....</b>	<b>3</b>
8.1 Calibration standard.....	3
8.2 Examples of instrumental method.....	3
<b>9 Expression of results - Calibration curve.....</b>	<b>4</b>
<b>10 Performance of the method.....</b>	<b>4</b>
<b>11 Test report.....</b>	<b>4</b>
<b>Annex A (informative) Suggested parameters for GC-MS determination of DMF.....</b>	<b>5</b>
<b>Bibliography.....</b>	<b>6</b>

iTech Standards  
 (https://standards.itih.ai)  
 Document Preview

ISO 16189:2021

<https://standards.itih.ai/catalog/standards/iso/b1f2f323-935a-463b-ac57-08ba1a15160f/iso-16189-2021>