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**Kakovost vode - Določanje izbranih sredstev za zaščito rastlin - Metoda z uporabo tekočinske kromatografije visoke ločljivosti (ISO 11369:1997)**

Water quality - Determination of selected plant treatment agents - Method using high performance liquid chromatography with UV detection after solid-liquid extraction (ISO 11369:1997)

Wasserbeschaffenheit - Bestimmung ausgewählter Pflanzenbehandlungsmittel - Verfahren mit der Hochauflösungs-Flüssigkeitschromatographie mit UV-Detektion nach Fest-Flüssig-Extraktion (ISO 11369:1997)

Qualité de l'eau - Dosage de certains agents de traitement des plantes - Méthode par chromatographie en phase liquide à haute performance (CLHP) avec détection UV après extraction solide-liquide (ISO 11369:1997)

**Ta slovenski standard je istoveten z: EN ISO 11369:1997**

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**ICS:**

13.060.50	Preiskava vode na kemične snovi	Examination of water for chemical substances
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**SIST EN ISO 11369:1998****en**

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EUROPEAN STANDARD

EN ISO 11369

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1997

ICS 13.060.30

Descriptors: see ISO document

English version

**Water quality - Determination of selected plant  
treatment agents - Method using high  
performance liquid chromatography with UV  
detection after solid-liquid extraction  
(ISO 11369:1997)**

Qualité de l'eau - Dosage de certains agents de  
traitement des plantes - Méthode par  
chromatographie en phase liquide à haute  
performance (CLHP) avec détection UV après  
extraction solide-liquide (ISO 11369:1997)

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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EN ISO 11369:1997

## Foreword

The text of the International Standard ISO 11369:1997 has been prepared by Technical Committee ISO/TC 147 "Water quality" in collaboration with Technical Committee CEN/TC 230 "Water analysis", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by February 1998, and conflicting national standards shall be withdrawn at the latest by February 1998.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 11369:1997 was approved by CEN as a European Standard without any modification.

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NOTE: Normative references to International Standards are listed in annex ZA (normative).

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**Annex ZA (normative)****Normative references to international publications  
with their relevant European publications**

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 5667-1	1980	Water quality - Sampling - Part 1: Guidance on the design of sampling programmes	EN 25667-1	1993
ISO 5667-2	1991	Water quality - Sampling - Part 2: Guidance on sampling techniques	EN 25667-2	1993
ISO 5667-3	1994	Water quality - Sampling - Part 3: Guidance on the preservation and handling of samples	EN ISO 5667-3	1995

# INTERNATIONAL STANDARD

**ISO**  
**11369**

First edition  
1997-08-01

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## Water quality — Determination of selected plant treatment agents — Method using high performance liquid chromatography with UV detection after solid-liquid extraction

iTeh STANDARD PREVIEW

*Qualité de l'eau — Dosage de certains agents de traitement des plantes —  
Méthode par chromatographie en phase liquide à haute performance (CLHP)  
avec détection UV après extraction solide liquide*

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Reference number  
ISO 11369:1997(E)

## ISO 11369:1997(E)

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## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11369 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical and biochemical methods*.

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Annexes A and B of this International Standard are for information only.

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## Water quality — Determination of selected plant treatment agents — Method using high performance liquid chromatography with UV detection after solid-liquid extraction

### 1 Scope

This International Standard describes a method for the determination of organic plant treatment agents in drinking and ground water using high performance liquid chromatography (HPLC) with UV detection after solid-liquid extraction.

The method described in this International Standard is applicable to the determination of selected plant treatment agents and some of their main degradation products (metabolites) in drinking water with a validated reporting limit of about 0,1 µg/l. Limited additional data indicate that it can be extended to 0,05 µg/l (see table 1 for examples). The method may be extended to include additional substances and ground water, provided the method is validated for each individual case.

The selection of the plant treatment agents and main degradation products in table 1 has been made according to the knowledge at the time of the interlaboratory trial (1992). Data for some other substances are given in annex A.

Table 1 — Plant treatment agents to which this International Standard applies

Name	Molecular formula	Molar mass	CAS No. <sup>1)</sup>	Substance family <sup>2)</sup>
Atrazine	C <sub>8</sub> H <sub>14</sub> ClN <sub>5</sub>	215,7	001912-24-9	T
Chlorotoluron	C <sub>10</sub> H <sub>13</sub> ClN <sub>2</sub> O	212,7	015545-48-9	H
Cyanazine**	C <sub>9</sub> H <sub>13</sub> ClN <sub>6</sub>	240,7	021725-46-2	T
Desethylatrazine *	C <sub>6</sub> H <sub>9</sub> ClN <sub>5</sub>	186,6	006190-65-4	T
Diuron	C <sub>9</sub> H <sub>10</sub> Cl <sub>2</sub> N <sub>2</sub> O	233,1	000330-54-1	H
Hexazinone**	C <sub>12</sub> H <sub>20</sub> N <sub>4</sub> O <sub>2</sub>	252,3	051235-04-2	T
Isoproturon	C <sub>12</sub> H <sub>18</sub> N <sub>2</sub> O	206,3	034123-59-6	H
Linuron	C <sub>9</sub> H <sub>10</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>2</sub>	249,1	000330-55-2	H
Metazachlor	C <sub>14</sub> H <sub>16</sub> ClN <sub>2</sub> O <sub>3</sub>	277,8	067129-08-2	A
Methabenzthiazuron	C <sub>10</sub> H <sub>11</sub> N <sub>3</sub> OS	221,3	018691-97-9	H
Metobromuron**	C <sub>9</sub> H <sub>11</sub> BrN <sub>2</sub> O <sub>2</sub>	259,1	003060-89-7	H
Metolachlor	C <sub>15</sub> H <sub>22</sub> ClNO <sub>2</sub>	283,8	051218-45-2	A
Metoxuron**	C <sub>10</sub> H <sub>13</sub> ClN <sub>2</sub> O <sub>2</sub>	228,7	19937-59-8	H
Monolinuron	C <sub>9</sub> H <sub>11</sub> ClN <sub>2</sub> O <sub>2</sub>	214,6	1746-81-2	H
Sebutylazine**	C <sub>9</sub> H <sub>15</sub> ClN <sub>5</sub>	228,7	00728-69-3	T
Simazine	C <sub>7</sub> H <sub>12</sub> ClN <sub>5</sub>	201,7	000122-34-9	T
Terbutylazine	C <sub>9</sub> H <sub>16</sub> ClN <sub>5</sub>	229,7	005915-41-3	T

1) CAS No.: Chemical abstracts number

2) Substance family: T: Triazine; H: Phenylurea herbicide; A: substituted anilide

\*: Main degradation product of atrazine

\*\* : Not included in the performance data