

First edition
2000-11-15

Corrected and reprinted
2001-06-01

**Water quality — Determination of selected
organic plant-treatment agents —
Automated multiple development (AMD)
technique**

*Qualité de l'eau — Dosage de certains agents organiques de traitement des
plantes — Méthode automatisée par développement multiple (ADM)*



Reference number
ISO/TS 11370:2000(E)

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Printed in Switzerland

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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.

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In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

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An ISO/PAS or ISO/TS is reviewed every three years with a view to deciding whether it can be transformed into an International Standard.

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

ISO/TS 11370 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical, biochemical methods*.

Annexes A and B of this Technical Specification are for information only.

Water quality — Determination of selected organic plant-treatment agents — Automated multiple development (AMD) technique

1 Scope

The method described in this Technical Specification 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 $> 0,05 \mu\text{g/l}$ (see examples in Table 1). 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 and Table A.2 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 determinable by this method

Name	Molecular formula	CAS No. ^a	Molar mass g/mol	Peak in Figure No.						
				1	2	3	4	5	6	7
Alachlor ^b	$\text{C}_{14}\text{H}_2\text{OCINO}_2$	015972-60-8	269,8	6				6		
Atrazine	$\text{C}_8\text{H}_{14}\text{ClN}_5$	001912-24-9	215,7	2				4		
Chlorfenvinphos ^b	$\text{C}_{12}\text{H}_{14}\text{Cl}_3\text{O}_4\text{P}$	000470-90-6	359,6	5				3		
Chlortoluron ^b	$\text{C}_{10}\text{H}_{13}\text{ClN}_2\text{O}$	015545-48-9	212,7	1						3
Cyanazine ^b	$\text{C}_9\text{H}_{13}\text{ClN}_6$	021725-46-2	240,7				1			4
2,4-D	$\text{C}_8\text{H}_6\text{Cl}_2\text{O}_3$	000094-75-7	221,0	4				1		
MCPA ^b	$\text{C}_9\text{H}_9\text{ClO}_3$	000094-74-6	200,6				2	2		
Metazachlor	$\text{C}_{14}\text{H}_{16}\text{ClN}_3\text{O}$	067129-08-2	277,8			3				5
Metobromuron	$\text{C}_9\text{H}_{11}\text{BrN}_2\text{O}_2$	003060-89-7	259,1			5				6
Metolachlor ^b	$\text{C}_{15}\text{H}_{22}\text{ClNO}_2$	051218-45-2	283,8			4				7
Metoxuron	$\text{C}_{10}\text{H}_{13}\text{ClN}_2\text{O}_2$	019937-59-8	228,7			1				1
Monuron ^b	$\text{C}_9\text{H}_{11}\text{ClN}_2\text{O}$	000150-68-5	198,7			2				2
Parathion ^b	$\text{C}_{10}\text{H}_{14}\text{NO}_5\text{PS}$	000056-38-2	291,3	7				7		
Pendimethalin	$\text{C}_{13}\text{H}_{19}\text{N}_3\text{O}_4$	040487-42-1	281,3		6				6	
Propazine ^b	$\text{C}_9\text{H}_{16}\text{ClN}_5$	000139-40-2	229,7	3				5		
Sebuthylazine ^b	$\text{C}_9\text{H}_{16}\text{ClN}_5$	007286-69-3	229,7		2				3	
Simazine	$\text{C}_7\text{H}_{12}\text{ClN}_5$	000122-34-9	201,7		1				2	
2,4,5-T ^b	$\text{C}_8\text{H}_5\text{Cl}_3\text{O}_3$	000093-76-5	255,5		4				1	
Terbutylazine ^b	$\text{C}_9\text{H}_{16}\text{ClN}_5$	005915-41-3	229,7		3				4	
Trifluralin ^b	$\text{C}_{13}\text{H}_{16}\text{F}_3\text{N}_3\text{O}_4$	001582-09-8	335,3	8				8		
Vinclozoline ^b	$\text{C}_{12}\text{H}_9\text{Cl}_2\text{NO}_3$	050471-44-8	286,1		5				5	

^a CAS No.: Chemical abstracts system.

^b Not included in the precision data (Table A.2).