# DIN EN ISO 10634:2020-08 (E)

## Water quality - Preparation and treatment of poorly water-soluble organic compounds for the subsequent evaluation of their biodegradability in an aqueous medium (ISO 10634:2018)

## Contents

Page


European foreword ..... 4

Foreword ..... 5

Introduction ..... 6

1 Scope ..... 7

2 Normative references ..... 7

3 Terms and definitions ..... 7

4 Presentation of suitable preparation and analytical methods ..... 8
4.1 Preparation methods ..... 8
4.2 Analytical methods ..... 8

5 Direct addition and addition with inert support ..... 8
5.1 General ..... 8
5.2 Reagents ..... 9
5.3 Apparatus ..... 9
5.4 Procedure ..... 9
5.4.1 Direct addition ..... 9
5.4.2 Addition on inert support ..... 10

6 Ultrasonic and physical treatment ..... 10
6.1 General ..... 10
6.2 Apparatus ..... 10
6.3 Procedure using an ultrasonic probe ..... 10
6.3.1 Preparation of the test compound ..... 10
6.3.2 Experimental protocol ..... 11
6.4 Procedure using an ultrasonic bath ..... 11
6.5 Other methods ..... 11

7 Adsorption on an inert support with a volatile solvent removed from the system ..... 12
7.1 General ..... 12
7.2 Reagents ..... 12
7.3 Apparatus ..... 12
7.4 Procedure ..... 12

8 Addition with a non-biodegradable solvent or emulsifying agent ..... 13
8.1 General ..... 13
8.2 Reagents ..... 13
8.3 Apparatus ..... 14

9 Preliminary tests ..... 15
9.1 Reagents ..... 15
9.1.1 Selection of emulsifying agent concentration ..... 15
9.1.2 Selection of mineral oil concentration ..... 15
9.1.3 Selection of silicone oil concentration ..... 15

9.2 Procedure ..... 15
9.2.1 Use of solvent ..... 15
9.2.2 Use of emulsifying agent ..... 16
9.2.3 Use of mineral oil ..... 16
9.2.4 Use of silicone oil ..... 16
9.3 Other additives ..... 17

10 Combination of methods ..... 17

11 Test report ..... 17

Annex A (informative) Examples of biodegradability curves ..... 19

Bibliography ..... 21