DIN EN 12876:2015-05 (E)

Chemicals used for treatment of water intended for human consumption - Oxygen

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Description 6
3.1 Identification 6
3.1.1 Chemical name 6
3.1.2 Synonym or common name 6
3.1.3 Relative molecular mass 6
3.1.4 Empirical formula 6
3.1.5 Chemical formula 6
3.1.6 CAS Registry Number 6
3.1.7 EINECS reference 6
3.2 Commercial forms 6
3.3 Physical properties 7
3.3.1 Appearance, odour and taste 7
3.3.2 Density 7
3.3.3 Solubility of pure oxygen (in water) 7
3.3.4 Vapour pressure 7
3.3.5 Boiling point at 100 kPa 3) 7
3.3.6 Melting point 7
3.3.7 Specific heat 7
3.3.8 Viscosity (dynamic) 7
3.3.9 Critical temperature 7
3.3.10 Critical pressure 7
3.3.11 Physical hardness 8
3.4 Chemical properties 8

4 Purity criteria 8
4.1 General 8
4.2 Composition of commercial product 8
4.3 Impurities and main by-products 8
4.4 Chemical parameters 8

5 Test methods 9
5.1 Sampling 9
5.2 Analyses 9
5.2.1 Main product 9
5.2.2 Impurities 11

6 Labelling - Transportation - Storage 11
6.1 Means of delivery 11
6.2 Labelling according to the EU legislation 11
6.3 Transportation regulations and labelling 12
6.4 Marking 13
6.5 Storage 13
6.5.1 Containers 13
6.5.2 Long term stability 13

6.5.3 Storage incompatibilities 13

Annex A (informative) General information on oxygen 14

A.1 Origin 14
A.1.1 Raw materials 14
A.1.2 Manufacturing process 14
A.2 Use 14
A.2.1 Function 14
A.2.2 Form in which it is used 14
A.2.3 Treatment dose 14
A.2.4 Means of application 14
A.2.5 Secondary effects 14
A.2.6 Removal of excess product 14
A.3 Monitoring of oxygen 14
A.3.1 Chromatographic method 14
A.3.2 Oxymeters based on electrochemical cells 15
A.3.3 Other methods 15

Annex B (normative) General rules relating to safety 16

B.1 Rules for safe handling and use 16
B.2 Emergency procedures 16
B.2.1 First aid 16
B.2.2 Leaks 16
B.2.3 Fire 16

Annex C (normative) Determination of hydrocarbons content (Methane Index) 17

C.1 General 17
C.2 Principle 17
C.3 Apparatus 17
C.4 Calibration 17
C.5 Procedure 17
C.6 Accuracy 17

Bibliography 18