

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