

DIN EN 900:2014-09 (E)

Chemicals used for treatment of water intended for human consumption - Calcium hypochlorite

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	7
3.1.6	CAS Registry Number)	7
3.1.7	EINECS reference)	7
3.2	Commercial form	7
3.3	Physical properties	7
3.3.1	Appearance	7
3.3.2	Density	7
3.3.3	Solubility in water	7
3.3.4	Vapour pressure	7
3.3.5	Boiling point at 100 kPa)	7
3.3.6	Melting point	7
3.3.7	Specific heat	7
3.3.8	Viscosity, dynamic	8
3.3.9	Critical temperature	8
3.3.10	Critical pressure	8
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	9
4.4	Chemical parameters	9
5	Test methods	9
5.1	Sampling	9
5.2	Analysis	10
5.2.1	Determination of calcium hypochlorite content (main product)	10
5.2.2	Dissolution quality (available chlorine after 1 min)	12
5.2.3	Impurities	13
5.2.4	Chemical parameters	14
6	Labelling - Transportation - Storage	16
6.1	Means of delivery	16
6.2	Labelling according to the EU legislation)	17
6.3	Transportation regulations and labelling	17
6.4	Marking	18

6.5	Storage	18
6.5.1	General	18
6.5.2	Long term stability	18
6.5.3	Storage incompatibilities	19
Annex A (informative) General information on calcium hypochlorite		20
A.1	Origin	20
A.1.1	Raw materials	20
A.1.2	Manufacturing process	20
A.2	Use	20
A.2.1	Function	20
A.2.2	Form in which it is used	20
A.2.3	Treatment dose	20
A.2.4	Means of application	20
A.2.5	Secondary effects	20
A.2.6	Removal of excess product	21
Annex B (normative) General rules relating to safety		22
B.1	Rules for safe handling and use	22
B.2	Emergency procedures	22
B.2.1	First aid	22
B.2.2	Spillage	22
B.2.3	Fire	22
Annex C (normative) Determination of arsenic, antimony and selenium (atomic absorption spectrometry hydride technique)		23
C.1	General principle	23
C.2	Interferences	23
C.3	Reagents	23
C.4	Apparatus	25
C.4.1	General	25
C.5	Procedure	27
C.5.1	Preparation of the apparatus	27
C.5.2	Preparation of calibration solutions	27
C.5.3	Preparation of test solutions and standard solutions	27
C.5.4	Determination of arsenic with sodium borohydride	27
C.5.5	Determination of selenium with sodium borohydride	28
C.5.6	Determination of antimony with sodium borohydride	28
C.6	Calculation	28
C.7	Repeatability limit	28
Annex D (informative) Environmental, health and safety precautions within chemical laboratory		29
Bibliography		30