

DIN EN 1409:2023-12 (E)

Chemicals used for water treatment intended for human consumption - Polyamines

Contents		Page
	European foreword	4
	Introduction	5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Description	6
4.1	Identification	6
4.1.1	Chemical name(s)	6
4.1.2	Synonym(s) or common name(s)	6
4.1.3	Relative molecular mass	6
4.1.4	Empirical formula	6
4.1.5	Chemical formula	7
4.1.6	CAS Registry Numbers	7
4.1.7	EINECS reference	7
4.2	Commercial form	8
5	Physical properties	8
5.1	Appearance	8
5.2	Density	8
5.3	Solubility	8
5.4	Vapour pressure	8
5.5	Boiling point at 100 kPa	8
5.6	Freezing point	8
5.7	Specific heat	8
5.8	Viscosity dynamic	8
5.9	Critical temperature	8
5.10	Critical pressure	8
5.11	Physical hardness	8
6	Chemical properties	9
6.1	General	9
6.2	Purity criteria	9
6.2.1	General	9
6.2.2	Impurities and main by-products	9
6.3	Composition of commercial product	9
6.4	Chemical parameters	10
7	Test methods	10
7.1	Sampling	10
7.1.1	General	10
7.1.2	Sampling from drums and bottles	10
7.2	Analyses	11
7.2.1	General	11
7.2.2	Main product	11
7.2.3	Impurities	13
8	Labelling - transportation - storage	20

8.1	Means of delivery	20
8.2	Labelling according to the EU Legislation	20
8.3	Transportation regulations and labelling	21
8.4	Marking	21
8.5	Storage	21
8.5.1	Long term stability	21
8.5.2	Storage incompatibilities	21
Annex A (informative) General information on polyamines		22
A.1	Origin	22
A.1.1	Raw materials	22
A.1.2	Manufacturing process	22
A.2	Use	22
A.2.1	Function	22
A.2.2	Form in which it is used	22
A.2.3	Treatment dose	22
A.2.4	Means of application	22
A.2.5	Secondary effects	22
A.2.6	Removal of excess product	22
A.3	Rules for safe handling and use	23
A.4	Emergency procedures	23
A.4.1	First aid	23
A.4.2	Spillage	23
A.4.3	Fire	23
Bibliography		24