

# DIN EN 15031:2013-08 (E)

## Chemicals used for treatment of swimming pool water - Aluminium based coagulants

<b>Contents</b>		<b>Page</b>
Foreword .....		3
Introduction .....		4
<b>1</b>	<b>Scope .....</b>	<b>5</b>
<b>2</b>	<b>Normative references .....</b>	<b>5</b>
<b>3</b>	<b>Description .....</b>	<b>5</b>
<b>3.1</b>	<b>Aluminium sulfate .....</b>	<b>5</b>
<b>3.2</b>	<b>Aluminium chloride (monomeric), aluminium chloride hydroxide (monomeric) and aluminium chloride hydroxide sulfate (monomeric) .....</b>	<b>8</b>
<b>3.3</b>	<b>Sodium aluminate .....</b>	<b>11</b>
<b>3.4</b>	<b>Polyaluminium chloride hydroxide and polyaluminium chloride hydroxide sulfate .....</b>	<b>14</b>
<b>4</b>	<b>Purity criteria .....</b>	<b>16</b>
<b>4.1</b>	<b>General .....</b>	<b>16</b>
<b>4.2</b>	<b>Composition of commercial product .....</b>	<b>17</b>
<b>4.3</b>	<b>Impurities and main by-products .....</b>	<b>17</b>
<b>4.4</b>	<b>Chemical parameters .....</b>	<b>18</b>
<b>5</b>	<b>Test methods .....</b>	<b>18</b>
<b>5.1</b>	<b>Sampling .....</b>	<b>18</b>
<b>5.2</b>	<b>Analyses .....</b>	<b>19</b>
<b>6</b>	<b>Labelling - transportation - storage .....</b>	<b>20</b>
<b>6.1</b>	<b>Means of delivery .....</b>	<b>20</b>
<b>6.2</b>	<b>Risk and safety labelling in accordance with the EU directives .....</b>	<b>20</b>
<b>6.3</b>	<b>Transportation regulations and labelling .....</b>	<b>23</b>
<b>6.4</b>	<b>Marking .....</b>	<b>24</b>
<b>6.5</b>	<b>Storage .....</b>	<b>24</b>
	<b>Annex A (informative) General information on aluminium based coagulants .....</b>	<b>26</b>
<b>A.1</b>	<b>Origin .....</b>	<b>26</b>
<b>A.2</b>	<b>Use .....</b>	<b>26</b>
	<b>Annex B (normative) General rules relating to safety .....</b>	<b>28</b>
<b>B.1</b>	<b>Rules for safe handling and use .....</b>	<b>28</b>
<b>B.2</b>	<b>Emergency procedures .....</b>	<b>28</b>
	<b>Bibliography .....</b>	<b>29</b>