

Irish Standard I.S. EN 15031:2013

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

© CEN 2013

No copying without NSAI permission except as permitted by copyright law.

#### I.S. EN 15031:2013

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces: EN 15031:2006

 This document is based on:
 Published:

 EN 15031:2013
 3 June, 2013

 EN 15031:2006
 17 May, 2006

This document was published under the authority of the NSAI and comes into effect on:

3 June, 2013

ICS number:

71.100.80

NSAI T +353 1 807 3800 Sales:

 1 Swift Square,
 F +353 1 807 3838
 T +353 1 857 6730

 Northwood, Santry
 E standards@nsai.ie
 F +353 1 857 6729

 Dublin 9
 W standards.ie

W NSAl.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

I.S. EN 15031:2013

**EUROPEAN STANDARD** 

EN 15031

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

May 2013

ICS 71.100.80

Supersedes EN 15031:2006

### **English Version**

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

Produits chimiques utilisés pour le traitement de l'eau des piscines - Coagulants à base d'aluminium

Produkte zur Aufbereitung von Schwimm- und Badebeckenwasser - Flockungsmittel auf Aluminiumbasis

This European Standard was approved by CEN on 21 March 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

## I.S. EN 15031:2013

Page

## EN 15031:2013 (E)

**Contents** 

Forew	ord	3
	uction	
1	Scope	5
2	Normative references	5
3 3.1	Description	
3.2	Aluminium chloride (monomeric), aluminium chloride hydroxide (monomeric) and aluminium chloride hydroxide sulfate (monomeric)	8
3.3 3.4	Sodium aluminate Polyaluminium chloride hydroxide and polyaluminium chloride hydroxide sulfate	11 14
4 4.1 4.2 4.3 4.4	Purity criteriaGeneralComposition of commercial productImpurities and main by-products	16 17 17
5 5.1 5.2	Test methodsSamplingAnalyses	18
6 6.1 6.2 6.3 6.4 6.5	Labelling - transportation - storage	20 20 23
Annex A.1 A.2	A (informative) General information on aluminium based coagulants Origin Use	26
Annex B.1 B.2	Rules for safe handling and use	28
	graphy	

EN 15031:2013 (E)

## **Foreword**

This document (EN 15031:2013) has been prepared by Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2013, and conflicting national standards shall be withdrawn at the latest by November 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15031:2006.

Significant technical differences between this edition and EN 15031:2006 are as follows:

Updating of subclause 6.2 in line with current legislation...

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### I.S. EN 15031:2013

EN 15031:2013 (E)

## Introduction

In respect of potential adverse effects on the quality of water for swimming pools, caused by the products covered by this European Standard:

- a) this European Standard provides no information as to whether the products may be used without restriction in any of the Member States of the EU or EFTA;
- b) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of these products remain in force.

NOTE Conformity with this European Standard does not confer or imply acceptance or approval of the products in any of the Member States of the EU or EFTA. The use of the products covered by this European Standard is subject to regulation or control by National Authorities.

EN 15031:2013 (E)

## 1 Scope

This European Standard is applicable to aluminium based coagulants (aluminium sulfate, aluminium chloride (monomeric), aluminium chloride hydroxide (monomeric), aluminium chloride hydroxide sulfate (monomeric), sodium aluminate and polyaluminium chloride hydroxide and polyaluminium chloride hydroxide sulfate) used directly or for the production of formulations for treatment of water for swimming pools.

It describes the characteristics of aluminium based coagulants and specifies the requirements and the corresponding test methods for aluminium based coagulants. It gives information on their use in swimming pool water treatment. It also determines the rules relating to safe handling and use (see Annex B).

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1302, Chemicals used for treatment of water intended for human consumption — Aluminium-based coagulants — Analytical methods

ISO 3165, Sampling of chemical products for industrial use — Safety in sampling

ISO 6206, Chemical products for industrial use — Sampling — Vocabulary

ISO 8213, Chemical products for industrial use — Sampling techniques — Solid chemical products in the form of particles varying from powders to coarse lumps

## 3 Description

## 3.1 Aluminium sulfate

#### 3.1.1 Identification

#### 3.1.1.1 Chemical name

Aluminium sulfate.

## 3.1.1.2 Synonym or common names

Aluminium sulfate, cake alum, alum.

NOTE In English the generic term "alum" is imprecise and is deprecated and in German the term "Alaun" is misleading.

#### 3.1.1.3 Relative molecular mass

342,14 for Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>.

## 3.1.1.4 Empirical formula

 $Al_2(SO_4)_3$ .



**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation