

BS EN 878:2016



BSI Standards Publication

# Chemicals used for treatment of water intended for human consumption — Aluminium sulfate

**National foreword**

This British Standard is the UK implementation of EN 878:2016. It supersedes BS EN 878:2004 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CII/59, Chemicals for drinking water treatment.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

## Chemicals used for treatment of water intended for human consumption - Aluminium sulfate

Produits chimiques utilisés pour le traitement de l'eau destinée à la consommation humaine - Sulfate d'aluminium

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Aluminiumsulfat

This European Standard was approved by CEN on 18 January 2016.

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## European foreword

This document (EN 878:2016) 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of an identical text or by endorsement, at the latest by September 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

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 878:2004.

Significant technical differences between this edition and EN 878:2004 are as follows:

- a) addition of CAS Registry Number for tetradecahydrate;
- b) information relating to the crystallization point added;
- c) replacement of warning and safety precautions notes by labelling according to Regulation (EC) No 1272/2008;
- d) modification of the concentration of the solutions used.

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this standard:

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

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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.

## 1 Scope

This European Standard is applicable to aluminium sulfate used for treatment of water intended for human consumption. It describes the characteristics of aluminium sulfate and specifies the requirements for aluminium sulfate and gives reference to the analytical methods. It gives information on its use in water treatment. It also determines the rules relating to safe handling and use of aluminium sulfate (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 Identification

#### 3.1.1 Chemical name

Aluminium sulfate.

#### 3.1.2 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.

#### 3.1.3 Relative molecular mass

342,14 for  $\text{Al}_2(\text{SO}_4)_3$ .

#### 3.1.4 Empirical formula

$\text{Al}_2(\text{SO}_4)_3$ .

#### 3.1.5 Chemical formula

$\text{Al}_2(\text{SO}_4)_3 \cdot n \text{H}_2\text{O}$ .

#### 3.1.6 CAS Registry Number <sup>1)</sup>

$\text{Al}_2(\text{SO}_4)_3$ : 10043-01-3.

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<sup>1)</sup> Chemical Abstracts Service Registry Number.