

Chemicals used for treatment of water intended for human consumption — Sodium hexafluorosilicate

ICS 13.060.20; 71.100.80

National foreword

This British Standard is the UK implementation of EN 12174:2006. It supersedes BS EN 12174:2001 which is withdrawn.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.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 December 2008

© BSI 2008

ISBN 978 0 580 57137 4

Amendments/corrigenda issued since publication

Date	Comments

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12174

July 2006

ICS 13.060.20; 71.060.50; 71.100.80

Supersedes EN 12174:2001

English Version

**Chemicals used for treatment of water intended for human
consumption - Sodium hexafluorosilicate**

Produits chimiques utilisés pour le traitement de l'eau
destinée à la consommation humaine - Hexafluorosilicate
de sodium

Produkte zur Aufbereitung von Wasser für den
menschlichen Gebrauch - Natriumhexafluorsilikat

This European Standard was approved by CEN on 23 June 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

© 2006 CEN All rights of exploitation in any form and by any means reserved
worldwide for CEN national Members.

Ref. No. EN 12174:2006: E

Contents

	Page
Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Description	5
3.1 Identification.....	5
3.2 Commercial form	6
3.3 Physical properties.....	6
3.4 Chemical properties	7
4 Purity criteria.....	7
4.1 General.....	7
4.2 Composition of commercial product.....	7
4.3 Impurities and main by-products	7
4.4 Chemical parameters	8
5 Test methods.....	8
5.1 Sampling	8
5.2 Analyses	8
6 Labelling - Transportation - Storage.....	14
6.1 Means of delivery.....	14
6.2 Risk and safety labelling according to the EU Directives	14
6.3 Transportation regulations and labelling.....	14
6.4 Marking	15
6.5 Storage.....	15
Annex A (informative) General information on sodium hexafluorosilicate.....	16
A.1 Origin	16
A.2 Use	16
Annex B (normative) General rules relating to safety.....	17
B.1 Rules for safe handling and use	17
B.2 Emergency procedures	17
Bibliography	18

Foreword

This document (EN 12174:2006) 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 January 2007, and conflicting national standards shall be withdrawn at the latest by January 2007.

This document supersedes EN 12174:2001.

A new requirement in subclause 4.2 specifies a tolerance on the manufacturer's declared value of the sodium hexafluorosilicate content.

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

Introduction

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

- a) this document provides no information as to whether the product 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 this product remain in force.

NOTE Conformity with this document 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 document is subject to regulation or control by National Authorities.

1 Scope

This document is applicable to sodium hexafluorosilicate used for treatment of water intended for human consumption. It describes the characteristics of sodium hexafluorosilicate and specifies the requirements and the corresponding test methods for sodium hexafluorosilicate. It gives information on its use in water treatment. It also determines the rules relating to safe handling and use of sodium hexafluorosilicate (see Annex B).

2 Normative references

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

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987)*

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

ISO 4281, *Sodium hexafluorosilicate for industrial use - Determination of free acidity and total hexafluorosilicate content - Titrimetric method*

ISO 4793, *Laboratory sintered (fritted) filters - Porosity grading, classification and designation*

ISO 5444, *Sodium fluorosilicate for industrial use - Determination of loss in mass at 105 degrees C*

ISO 5993, *Sodium hydroxide for industrial use - Determination of mercury content - Flameless atomic absorption spectrometric method*

ISO 6206, *Chemical products for industrial use - Sampling – Vocabulary*

ISO 6353-1, *Reagents for chemical analysis - Part 1: General test methods*

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

Disodium hexafluorosilicate

3.1.2 Synonym or common name

Sodium silicofluoride, sodium hexafluorosilicate

3.1.3 Relative molecular mass

188,055

3.1.4 Empirical formula

Na₂SiF₆