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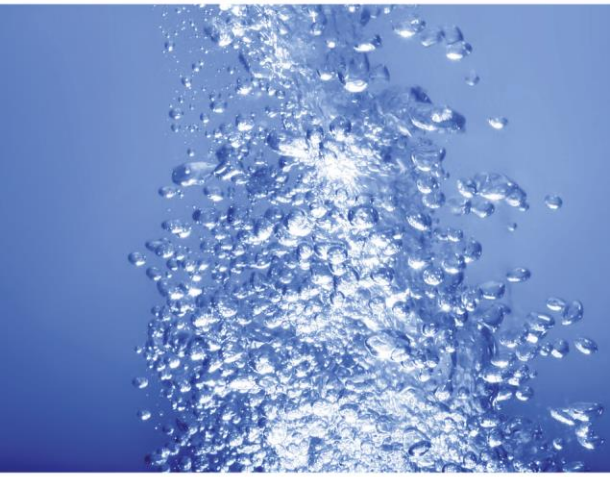
Kiwa Manual

for the Kiwa NSF/ANSI/CAN 50 product certificate for treatment chemicals for swimming pools, spas, hot tubs and other recreational water facilities



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Validation
This version of the manual replaces the version of - and has been validated by the responsible Division Director of Kiwa on 01 May 2022

Trust
Quality
Progress

Contents

1 Introduction

1.1 General

This manual includes all relevant requirements which are employed by Kiwa as the basis for the issue and maintenance of a certificate for products used as treatment chemicals for swimming pools, spas, hot tubs and other recreational water facilities.

This manual is used by Kiwa in conjunction with the Kiwa-Regulations for Product Certification. These regulations detail the methods used by Kiwa for conducting the necessary investigations prior to issuing the product certificate and the methods of external control.

For the performance of its certification work, Kiwa is bound to the requirements as included in the clause 7 of ISO/IEC 17065.

1.2 Field of application / scope

This manual covers the scope “treatment chemicals used in recreational water and facilities” of the NSF/ANSI/CAN 50 “Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs, and Other Recreational Water Facilities“ standard. The products are intended to be used for treatment of water for swimming pools, spas, hot tubs and other recreational water facilities. This manual describes the characteristics of the product and specifies the requirements of the product and gives reference to the analytical methods e.g. when the product is a chemical substance.

1.3 Quality declaration

The quality declarations to be issued by Kiwa are described as Kiwa product certificates.

2 Terms and definitions

In this manual the following terms and definitions are applicable:

Supplier:
the party that is responsible for ensuring that the products meet and continue to meet the requirements on which the certification is based.

Producer
the party that is responsible for the production of the products on which the certification is based.

IQC scheme (IQCS) :
a description of the quality inspections carried out by the supplier as part of his quality system.

Product:
treatment chemicals used in recreational water and facilities.

Chemical:
for this manual “chemical” means all water treatment products covered by scope “treatment chemicals used in recreational water and facilities of the NSF/ANSI/CAN 50 standard”.

Product requirements:
requirements made specific by means of measures or figures, focusing on (identifiable) characteristics of products and containing a limiting value to be achieved, which limiting value can be calculated or measured in an unequivocal manner.

Pre-certification tests:
tests in order to ascertain that all the requirements recorded in the manual are met.

Inspection tests:
tests carried out after the certificate has been granted in order to ascertain whether the certified products continue to meet the requirements recorded in the manual.

Remark: The test matrix contains a summary showing what tests Kiwa will carry out in the pre-certification stage and in the event of inspections as well as showing the frequency with which the inspection tests will be carried out.

Product certificate:
a document, in which Kiwa declares that a product may, on delivery, be deemed to comply with the product specification recorded in the product certificate.

Testing:
all necessary testing, done by the supplier and/or manufacturer to ensure that the product shall meet the requirements of this manual.

Certification mark
a protected trademark of which the authorization of the use is granted by Kiwa, to the supplier whose products can be considered to comply on delivery with the applicable requirements.

Shelf life:
the shelf life is defined: the amount of time that a properly packaged and stored product will last without undergoing chemical or physical changes.

3 Procedure for granting the quality declaration

3.1 Pre-certification tests

The pre-certification tests to be performed are based on the (product) requirements as included in this manual including the test methods and contain, depending on the nature of the product to be certified:

- type testing to determine whether the products comply with the product and/or functional requirements,
- production process assessment;
- assessment of the quality system and the IQC-scheme,
- assessment on the presence and functioning of the remaining procedure.

3.2 Investigation into the product and/or performance requirements

Kiwa will investigate to be certified products against the certification requirements as stated in the certification requirements.
The necessary samples will be drawn by or on behalf of Kiwa.

3.3 Production process assessment

When assessing the production process, it is investigated whether the producer is capable of continuously producing products that meet the certification requirements.
The evaluation of the production process takes place during the ongoing work at the producer.
The assessment also includes at least:

- The quality of raw materials, half-finished products and end products;
- Internal transport and storage.

3.4 Contract assessment

If the supplier is not the producer of the products to be certified, Kiwa will assess the agreement between the supplier and the producer.
This written agreement, which is available for Kiwa, includes at least:

3.5 Accreditation bodies, scheme managers and Kiwa will be given the opportunity to observe the certification activities carried out by Kiwa or on behalf of Kiwa at the producer.Granting the quality declaration

After finishing the pre-certification tests the results are presented to the person deciding on granting of the certificate. This person evaluates the results and decides whether the certificate can be granted or additional data and/or tests are necessary.

4 Product Requirements

4.1 General

This chapter contains the requirements that products, defined as treatment chemicals used in recreational water and facilities, have to fulfil. These requirements are part of the technical specification of the products, as included in the certificate.

4.2 Requirements of the health effects evaluation of the water treatment chemicals of swimming pools, spas, hot tubs, and other recreational water facilities

Products which (may) come into contact with water of swimming pools, spas, hot tubs, and other recreational water facilities, shall not release undesirable levels of either chemical constituents or contaminants to the water. The products shall meet the requirements laid down in the scope “treatment chemicals used in recreational water and facilities” of the NSF/ANSI/CAN 50 “ Equipment and Chemicals for swimming pools, spas, hot tubs and other recreational water facilities” standard. This means that de procedure according to NSF/ANSI/CAN 50 for obtaining a recognised quality declaration has to be concluded with positive results.

NSF/ANSI/CAN 50 scope “Treatment chemicals used in recreational water and facilities” refers to NSF/ANSI/CAN 60 for the test methods.
The test methods described in NSF/ANSI/CAN 60 are applicable.

4.3 Instructions for use

The supplier shall provide instructions of use where applicable. A reference to these instructions shall be made at or near to the packaging. The instructions must contain specific information with regard to storage, safety, transport, processing temperature and use.

4.4 Protection of products during transport and storage

For the purpose of hygienic handling, products shall be protected against contamination during storage and transport.

4.5 Shelf life

The lifetime of the product is according to the manufacturers own declaration.
The manufacturer has to prove the fulfilment of the declared lifetime by duration tests of by other relevant evidence.

The declaration and prove shall be inspected during the yearly inspection visits (see chapter 7).

5 Marking

5.1 General

The products have to be marked on the packaging with following minimum indelible marks and indications:

- Product trade name;
- Certificate number;
- Manufacturer's name and address”
- “Net weight”
- “Lot number”
- “Maximal usage dose of the product”

For extensive marks according to NSF/ANSI/CAN 50 standard: see certificate

5.2 Certification mark

After concluding a Kiwa certification agreement, the certified products shall be indelible marked on the packaging[1)] with the following certification marks:

KIWA NSF/ANSI 50 -chemicals-

or the logo

[1)] If not possible, the marking shall be on the delivery receipt.

Remark:
for bulk transport (in lorries) use one of both certification marks for the expedition document.

6 Requirements with respect to the quality system

This chapter contains the requirements which have to be met by the suppliers and/or producers quality system.

6.1 Manager of the quality system

Within the suppliers and/or producers organizational structure an employee must have been appointed who is in charge of managing the suppliers and/or producers quality system.

6.2 Internal quality control/quality plan

The supplier and/or producer shall have an internal quality control scheme (IQC scheme) which is applied by him.

The following must have been demonstrably recorded in this IQC scheme:

- what aspects are checked by the supplier and/or producer;
- according to what methods such inspections are carried out;
- how often these inspections are carried out;
- in what way the inspection results are recorded and kept.

This IQC scheme should at least be an equivalent derivative of the model IQC scheme as shown in annex I.

6.3 Control of test and measuring equipment

The supplier shall verify the availability of necessary test and measuring equipment for demonstrating product conformity with the requirements in this evaluation guideline.
When required the equipment shall be kept calibrated (e.g recalibration at interval).
The status of actual calibration of each equipment shall be demonstrated by traceability through an unique ID.
The supplier must keep records of the calibration results.
The supplier shall review the validity of measuring data when it is established at calibration that the equipment is not suitable anymore.

6.4 Procedures and working instructions

The supplier and/or producer shall be able to submit the following:

- procedures for:
    - dealing with products showing deviations;
    - corrective actions to be taken if non-conformities are found;
    - dealing with complaints about products and/or services delivered;
- the working instructions and inspection forms used.

6.5 Other requirements

The supplier shall be able to submit the following:

- the organisation’s organogram;
- qualification requirements of the personnel concerned.

7 Summary of tests and inspections

This chapter contains a summary of the following tests and inspections to be carried out in the event of certification:

- pre-certification tests;
- inspection tests as to toxicological requirements and product requirements;
- inspection of the quality system.

The frequency with which Kiwa will carry out inspection tests is also stated in the summary.

7.1 Test matrix

In table 1 the test matrix is given.

Table 1 – Test matrix.

Description of requirement	Manual clause	Tests within the scope of:		
		Pre-certification	Supervision by Kiwa after granting of certificate[1)]	
			inspection[2)]	frequency (no./year)
Requirements to avoid deterioration of the quality of the recreational water and facilities	4.2	X	X[3)]	1x year
Application instructions	4.3	X	X	1x year
Protection during transport and storage	4.4	X	X	1x year
Lifetime of the product	4.5	X	X	1x year
Marking	5	X	X	1x year
Requirements quality system	6	X	X	1x year

1) In case the product or production process changes significantly, it must be determined whether the performance requirements are still met.
All product characteristics that can be determined within the visiting time (maximum 1 day) are determined by the inspector or by the supplier in the presence of the inspector. In case this is not possible, an agreement will be made between the certification body and the supplier about how the inspection will take place.

2) This aspect is compared with the for this aspect ascertained acceptance parameters on the basis of the IQC inspection (indirect by means of direct related parameters).

3) Sampling and testing to verify the IQC of the supplier and/or manufacturer; this activity is performed once a year or, if in combination with other approvals with a comparable scope, once every three years.

7.2 Inspection of the quality system

The quality system will be checked by Kiwa on the basis of the IQC scheme.
The inspection contains at least those aspects mentioned in the Kiwa Regulations for Product Certification.

8 Agreements on the implementation of certification

8.1 General

Beside the requirements included in this manual, also the general rules for certification as included in the Kiwa Regulations for Product Certification apply.

These rules are in particular

- the general rules for conducting the pre-certification tests, to be distinguished in:
    - the way suppliers are to be informed about how an application is being handled,
    - how the test are conducted,
    - the decision to be taken as a result of the pre certification tests.
- the general directions for conducting inspections and the aspects to be audited,
- the measurements to be taken by Kiwa in case of Non Conformities,
- measurements taken by Kiwa in case of improper Use of Certificates, Certification Marks, Pictograms and Logos,
- terms for termination of the certificate,
- the possibility to lodge an appeal against decisions of measurements taken by Kiwa.

8.2 Certification staff

The staff involved in the certification may be sub-divided into:

- certification assessors: they are in charge of carrying out the pre-certification tests and assessing the inspectors' reports;
- site assessors: they are in charge of carrying out external inspections at the supplier's works;
- decision-makers: they are in charge of taking decisions in connection with the pre-certification tests carried out, continuing the certification in connection with the inspections carried out and taking decisions on the need to take corrective actions.

8.2.1 Qualification requirements

The qualification requirements consist of:

- qualification requirements for personnel of a certification body which satisfies the requirements EN ISO / IEC 17065, performing certification activities (see table 2)

Table 2 – Qualification requirements of certification staff.

Technical competences	Certification Assessor	Site Assessor	Decision maker
Education - specific	• Technical intermediate-level professional education • Internal training certification and Kiwa policy • Training auditing	• Intermediate-level professional education • Internal training certification and Kiwa policy • Training auditing	• Higher level professional education • Internal training certification and Kiwa policy • Training auditing
	• for manual relevant technical education • specific studies and training (know-how and skills)	• for manual relevant technical education • specific studies and training (know-how and skills)	• not applicable

Technical competences	Certification Assessor	Site Assessor	Decision maker
Experience – specific	• 1 year of relevant work experience with at least 3 pre certification tests of which one carried out independent under supervision.	• 1 year of relevant work experience with at least 4 inspections of which one carried out independent under supervision	• 4 year of relevant work experience with at least 1 year in certification
	• Detailed knowledge of the manual and 3 certification tests carried out on the basis of the manual or similar	• Detailed knowledge of the manual and 3 inspections carried out on the basis of the manual or similar.	• general knowledge of the manual

The level of education and the experience of the certification staff involved should be demonstrably recorded.

8.2.2 Qualification

The qualification of the Certification staff shall be demonstrated by means of assessing the education and experience to the requirements mentioned before. In case staff is to be qualified on the basis of deflecting criteria, written records shall be kept.

The authority to qualify staff is dedicated to:
- decision makers: qualification of certification assessors and site assessors,
- management of Kiwa: qualification of decision makers.

8.3 Report Pre certification tests

Kiwa records the results of the pre certification tests in a report. This report shall comply with the following requirements:
- completeness: the reports verdicts about all requirements included in the manual,
- traceability: the findings on which the verdicts have been based shall be recorded traceably,
- basis for decision: the decision maker shall be able to base his decision on the findings included in the report.

8.4 Decision for granting the certificate

The decision for granting the certificate shall be made by a qualified decision maker which has not been involved in the pre certification tests. The decision shall be recorded traceable.

8.5 Nature and frequency of external inspections

Kiwa shall carry out audits on site at the supplier at regular intervals to check whether the supplier complies with his obligations. The frequency of audits amounts at least one audit on site per year for suppliers with a quality management system (in accordance with ISO 9001) for their production, which has been certified by an acknowledged body (in accordance with ISO/IEC 17021-1) and where the IQC scheme forms an integral part of the quality management system. In case the production of the supplier is not certified against ISO 9001, the frequency of the audits on site may be increased to at least two per year.

Inspections shall at least refer to:
- the suppliers IQC-scheme and the results obtained from inspections carried out by the supplier,
- the correct way of marking of certified products
- complying with required procedures.

The results of each inspection shall be traceably recorded in a report.

9 Titles of standards

9.1 Public law rules

In table 3 the public rules that have to be fulfilled are listed.

Table 3 – Public law rules (the latest version is valid).

Standard	Title
NSF/ANSI/CAN 50	Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs, and Other Recreational Water Facilities

9.2 Standards / normative documents

In table 4 the relevant normative documents (standards) for this manual are listed.

Table 4 – For this manual relevant normative documents (standards). (the latest version is valid).

Standard	Title
ISO 9001	Quality management systems - Requirements
ISO/IEC 17021-1	Conformity assessment – Requirements for bodies providing audit and certification of management systems – Part 1: Requirements
ISO/IEC 17065	Conformity assessment - Requirements for bodies certifying products, processes and services

Model IQC Scheme

Inspection subjects	Inspection aspects	Inspection method	Inspection frequency	Inspection registration
Raw materials or materials supplied: - recipe sheets - incoming goods inspection raw materials	 - Recipe according annex product agreement -		 Each delivery	 Entry control document
Production process, production equipment, plant: - procedures - working instructions - equipment - release of product	- tuning parameters - maintenance aspects	- adjustments machine - maintenance scheme - measuring - visual evaluation	- continuously - continuously - start up new product	- "digital" - work sheet - inspection document
Finished-products	- soundness -etc	- visually - measuring - etc	- continuously - etc	End control documents
Measuring and testing equipment - measuring equipment - calibration	- proper functioning - accuracy within the range of measurement	- during usage - records of non-conformities	- continuously - 1 x year	- end control document - calibration document
Logistics - internal transport - storage - Preservation - packaging - identification	- circumstances in practise - comparison with order	- comparison with procedure - visual inspection	- continuously	- keep logistical procedures up to date