



Certificate of Sanitary Conformity
(attestation de conformité sanitaire, ACS)



Rediscover



the natural purity of
water

What is a Certificate of Sanitary Conformity?

A Certificate of Sanitary Conformity **is an official approval** issued by the **Health Department**.

The ACS was introduced in 1998.

It covers the component materials for the equipment which comes into contact with water for human consumption, as well as the equipment itself.

The objective of this regulation

Systems which come into contact must not develop:

- corrosion phenomena
- organic deterioration
- the elements must not lead to the modification of water's organoleptic properties
- deterioration of the microbiological quality of water
- appearance of toxic elements in water

For you and our clients, this means

The certainty of a product which offers **certified quality**.

- The ACS shows that the components of the product cannot change water

You can rely on this assurance.

CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of €167,500

LYON RCS (Trade and Companies Register) 539449769

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Subsidiaries:

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no.
5394497690048



Rediscover
the natural purity of
water



CARSO - LABORATOIRE SANTÉ ENVIRONNEMENT HYGIÈNE DE LYON

Laboratory accredited by the Ministry of Health for water analyses

Laboratory accredited by the Ministry of Health pursuant to Article R*.1321-52 of the French Public Health Code

CERTIFICATE OF SANITARY CONFORMITY

Certificate of sanitary conformity

In accordance with the order of 29 May 1997, modified, and the Ministry of Health circular
Health Department DGS/SD7A N° 571 of 25 November 2002

Contact details for the ACS applicant:

CARTIS INDUSTRY
5A Wellington Street
Rose-Hill
MAURITIUS

Name of the representative accessory:

O2FRO 200 filter

File reference no. assigned by the reliability laboratory: **15 ACC LY 210**

Test date (according to the standard XP P 41-280): /

Test date (according to the standard XP P 41-280): /

Comments: no migration test is required for obtaining this ACS (components are compliant)

Comments : Accessories are assembled using components complying with the regulation

Accessory category covered by this certificate:

Filters

Product numbers (5 products):

O2PRO 100
O2PRO 200
O2PRO 400
O2PRO 600
O2PRO 800

The ACS does not give a preliminary assessment of the filters' treatment performance. The filters were assessed without their treatment products. *The ACS do not prejudge the efficiency of the filters that have been evaluated without their treatment products. These must be authorized by the Ministry of Health.*

Certificate issued by:

Christelle AUTUGELLE
Manager, MCDE
(Matériaux au contact de
l'eau, materials in contact
with water)
CARSO - L.S.E.H.L.

Signature:

Date of issue: 31 March 2015

Expiry date: 31 March 2020

Comments: /

CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of €167,500

LYON RCS (Trade and Companies Register) 539449769

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Subsidiaries:

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no.

53944976900048



Rediscover 
the natural purity of
water

F_MC060-b 15/09/2014 MLN

Société par action simplifiée (simplified joint-stock company) with capital of 2,283,622.30 euros - Lyon RCS (Trade and Companies Register) B 410 545 313 - SIRET No. 410 545 313 00042 - APE
(primary activity code) 743 B - N° VAT: FR 82 410 543 313
Headquarters: 4, avenue Jean Moulin - CS 30228 - F - 69633 VENISSEUX codex, France - Tel.: +33 (0)4 72 76 16 16 - Fax: +33 (0)4 78 72 12 11

**CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of €167,500**

LYON RCS (Trade and Companies Register) 539449769

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Subsidiaries:

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no.

53944976900048



NSF International

RECOGNIZES

CARTIS Industry Ltd

Facility: Olivet, France

AS COMPLYING WITH NSF/ANSI 61 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.



ANSI
Certification Program
Accredited by the
American National
Standards Institute



NSF
Certification Program
Accredited by the
Standards Council
of Canada

This certificate is the property of NSF International and must be returned upon request. For the most current and complete information, please access NSF's website (www.nsf.org).

August 14, 2012
Certificate# C0073855 - 02

David Purkiss, General Manager
Water Distribution Systems

Online: <http://www.cartis-france.com/nsf>

NSF certification (in this case, in 2012) demonstrates CARTIS's commitment to purification.

WHAT IS NSF INTERNATIONAL?

NSF International is an independent not-for-profit entity involved in the safety of public health and in the protection of the environment. It is not a government entity, and is not controlled by the industry. Its independent status is a guarantee that products and equipment are tested and assessed by a completely impartial agency.

WHAT DOES NSF CERTIFICATION MEAN?

When an NSF label appears on equipment used in the food industry, this means that the equipment has been assessed, tested and certified by NSF International and recognised as compliant with international food industry standards. To earn the right to use the NSF label, companies must undergo a strict assessment, have their equipment tested, and also accommodate unannounced inspections of their factories, carried out periodically.



Rediscover
the natural purity of
water



CARTIS SYSTEM PERFORMANCE STUDY

CARRIED OUT BY ESCOM – 2014

**CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of
€167,500**

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063



Rediscover
the natural purity of
water



**CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of
€167,500**

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063



Rediscover 
the natural purity
of water

ESCOM analyses results June 2014

1-SPECIFICATIONS

CARTIS, under the responsibility of its General Manager Mr Michel Demigneux, tasked ESCOM (Ecole Supérieure de Chimie organique et Minérale, located in Compiègne, Oise, a higher education and research establishment recognised by the State) and its research teams with carrying out water analysis research services. The objective was to understand, quantitatively assess and optimise the physical, chemical and mechanical properties of the CARTIS filtration systems.

This research project focused on the quantity of normal pollutants and specific pollutants (pesticides) in water for consumption, before and after passing through a CARTIS filtration system. About ten water samples were taken after passing through various O2PRO filters (100, 200 and 400).

A list of 9 pollutants was drawn up by CARTIS: **aluminium, silver, lead, arsenic, iron, chlorine, nitrates, atrazine and chlordecone.**

2-FILTRATION SYSTEM START-UP

A- PROTOCOL

The treatment system was assembled and prepared by CARTIS. It was made up of 6 O2PRO filtration systems with varying capacities (100, 200, 400). Each device is separate and can operate in filtration mode (water inlet at the bottom) or in backwash rinsing mode (water inlet at the top).



Each device was rinsed according to the CARTIS procedure established for operating an O2PRO.

CDF CARTIS - SAS (société par actions simplifiée, simplified joint-stock company) with capital of €167,500

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063





Rediscover 
the natural purity
of water

ESCOM analyses results June 2014

B- OBSERVATIONS

The start-up protocol was optimal, with crystal-clear water after 4 cycles and 15 seconds of backwash rinsing. Adding 4 normal cycles then 4 backwash cycles improves the efficiency of the filter as it is prepared for use.

We recommend maintaining this preparation protocol, which does not take long and uses just a small amount of water, for optimal preparation of the filter before use.

C- TURBIDITY MEASUREMENT

A turbidity measurement was taken at the outlet of each filter to see if the value for tap water had gone down. Turbidity refers to the quantity of suspended particles in water, making it cloudy. Turbidity should be below 5 ntu (Nephelometric Turbidity Units) for clear water. At levels above 5 ntu, water starts to become visually cloudy.

OBSERVATIONS

We could observe that the water flow (rinsing) protocol for the filters was optimal and did not require any modification, given the preliminary results available to us.

The turbidity values at the filter outlet were excellent, with water that no longer had any suspended particles.

The upstream installation of a 5-micron pre-filter is recommended for increasing the lifespan of the filter and thus reducing the rinsing cycles.

3-RESULTS OF THE POLLUTANT COLLECTION OPERATIONS

A- PROTOCOL

The pollutant analyses are carried out in accordance with recognised and approved standards:

- NF T 90015-2
- NF EN ISO 10304-1
- ISO 11885-15587/1
- NF ISO 13395
- NF ISO 9297

CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of
€167,500

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063





Rediscover 
the natural purity
of water

ESCOM analyses results June 2014

B- SUMMARY TABLE

	WATER BEFORE CARTIS	O2PRO 100	O2PRO 200	O2PRO 400	NOTES
TURBIDITY (in NTUs)	1.245	98.80%	100%	100%	Amount of suspended particles in the water
ATRAZINE	7 µg/L	97.00%	97.40%	>98.60%	Phytopsanitary - herbicide (pesticide) pollutant
CHLORDECONE*	12 µg/L	not tested	99.99%	99.99%	Pesticide used in the West Indies for treating bananas
SILVER	carbon with silver	not detected	not detected	not detected	CARTIS silver release verification
ALUMINIUM	30 µg/L	not detected	not detected	not detected	Heavy metal - Promotes Alzheimer's
ARSENIC	20 µg/L	80.00%	85.00%	>85.00%	Heavy metal - Highly toxic - Endocrine disruptor
IRON	1mg/L	95.40%	98.30%	99.20%	Heavy metal - Hepatic disruptor
NITRATES	30 µg/L	11.00%	14.40%	14.90%	
LEAD	50 µg/L	88%	>94%	>94%	
CHLORINE	5mg/L	not detected	not detected	not detected	Detection limit 0.1 mg/L

µg/L = microgram per litre

µg/L = milligram per litre

NTU = Nephelometric turbidity measurement unit

* Chlordecone was not tested with the O2PRO100 because this filter is not sold in DOMs (French overseas departments)

C- DEFINITION OF THE POLLUTANTS MEASURED

ATRAZINE

Atrazine is a common pollutant in tap water. It is a phytopsanitary product used as a herbicide when treating crops.

CHLORDECONE

Chlordecone is another pesticide very commonly used for treating bananas on the islands of Martinique and Guadeloupe. However, its use is banned and it is not allowed to be sold. It is nonetheless found in varying and significant amounts in water for consumption.

SILVER

The goal of measuring silver is to check whether traces of released silver are found after water is treated by CARTIS.

CDF CARTIS - SAS (société par actions simplifiée, simplified joint-stock company) with capital of €167,500

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063





Rediscover 
the natural purity
of water

ESCOM analyses results June 2014

OTHER HEAVY METALS: ALUMINIUM, ARSENIC, IRON, NITRATES, LEAD

The targeted metals were added to the water in the knowledge that tap water also contains these pollutants in variable amounts depending on the nature of the water.

CHLORINE

For this test, we had to add chlorine to tap water to properly establish its presence.

CONCLUSION

The collection tests demonstrate the efficiency of the filters. The filters have reduction rates of over 97% for atrazine, over 95% for iron, over 90% for lead, and 80-85% for arsenic.

For all the filters, aluminium and chlordecone were no longer detected at the filter outlet and no traces of silver were observed at the filter outlet after the preparation protocol.

4-COMBINED TEST 

A test was carried out on water polluted with all the products tested previously, to check the efficiency of the filters for an entire group of pollutants at the same time.

CONCLUSION

The collection tests demonstrate the efficiency of the filters.

The filters had similar reduction rates for the pollutants, whether combined or added individually.

Even when combined, certain pollutants were no longer detected at the filter outlet and no traces of silver were observed at the filter outlet after the preparation protocol.

All the data have been extracted from the final report by ESCOM (Ecole Supérieure de Chimie Organique et Minérale). The information given is identical to the information provided by ESCOM

CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of
€167,500

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063





Rediscover
the natural purity of
water



CARTIS SYSTEM PERFORMANCE STUDY

CARRIED OUT BY ESCOM – MARCH 2015



CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of
€167,500

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE - LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063



Rediscover
the natural purity of
water

1-SPECIFICATIONS

CARTIS, under the responsibility of its General Manager Mr Michel Demigneux, tasked ESCOM (Ecole Supérieure de Chimie organique et Minérale, located in Compiègne, Oise, a higher education and research establishment recognised by the State) and its research teams with carrying out water analysis research services. The objective was to understand, quantitatively assess and optimise the physical, chemical and mechanical properties of the CARTIS filtration systems.

This research project focused on the quantity of normal medicinal pollutants in water for consumption, before and after passing through a CARTIS filtration system.

A list of 4 common medicinal pollutants was drawn up by CARTIS: **Bisphenol A, Paracetamol, b-Estradiol, and 5-fluorouracil (5-FU).**

2-RESULTS OF THE POLLUTANT COLLECTION OPERATIONS

A- PROTOCOL

The pollutant analyses were carried out in accordance with recognised and approved standards:

- NF T 90015-2
- NF EN ISO 10304-1
- ISO 11885-15587/1
- NF ISO 13395
- NF ISO 92

B- SUMMARY TABLE

Products	Category	Quantity Introduced	Initial Concentration	Reduction
Bisphenol A	Endocrine disruptor	1.02 g	25 ppm	98%
Paracetamol	Pain reliever	4 g	100 ppm	83%
b-Estradiol	Hormone	0.52 g	87 ppm	80%
5-FU	Cancer drug	0.62 g	103 ppm	DL

* DL: detection limit reached (5 ppm, 5 mg/L)

CDF CARTIS - SAS (société par actions simplifiée, simplified joint-stock company) with capital of €167,500

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

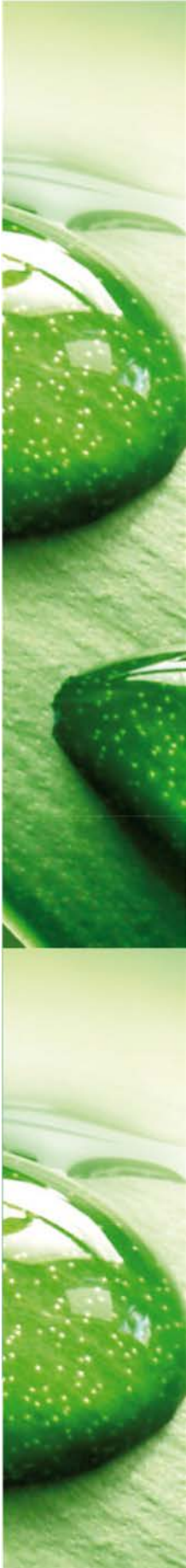
287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE- LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063





Rediscover the natural purity of water

C- DEFINITION OF THE POLLUTANTS MEASURED

BISPHENOL A

Bisphenol A (BPA) is an organic compound resulting from the reaction between two equivalents of phenol and one equivalent of acetone.

PARACETAMOL

Paracetamol, also known as acetaminophen, is the active ingredient in a large number of specific medications in the non-salicylate antipyretic analgesic class.

B-ESTRADIOL

Estradiol is the primary oestrogen secreted by the ovaries throughout a woman's cycle. It is a female oestrogen secreted during the sexually active years.

5-FU

Fluorouracil (5-FU) is the drug that has been prescribed the longest for digestive cancers and, still today, is one of the most commonly prescribed oncology medications.

CONCLUSION

For 5-FU (5-fluorouracil), if we start out with a reduction rate calculation for a final concentration of 5 ppm (detection limit), we end up with a reduction rate of at least 95%.

All the data have been extracted from the final report by ESCOM (Ecole Supérieure de Chimie Organique et Minérale). The information given is identical to the information provided by ESCOM

CDF CARTIS - SAS (société par actions simplifiée,
simplified joint-stock company) with capital of
€167,500

LYON RCS (Trade and Companies Register) 539449769 Subsidiaries:

ZAC de Sacuny - Bât Terra Ditta

287 rue Barthélemy Thimonnier - 69530 Brignais

Tel. +33 (0) 4 72 67 92 18 - Fax. +33 (0)4 72 65 01 59

CDF CARTIS GUADELOUPE- LE GOSIER - Siret no. 53944976900030

CDF CARTIS MARTINIQUE - FORT DE France - Siret no. 53944976900048

CDF CARTIS RÉUNION - LE PORT - Siret no. 53944976900063