



English

Français



20
09



Prohibited List

Español



**WORLD
ANTI-DOPING
AGENCY**

play true

The 2009 Prohibited List

This List shall come into effect on 1 January 2009

Published by:

The World Anti-Doping Agency

e-mail: info@wada-ama.org

www.wada-ama.org

Please be advised that this information is subject to change at anytime and that in case of any discrepancy between this information and the World Anti-Doping Code, the Code prevails. Always check with your International Federation or National Federation for the most up-to-date anti-doping regulations.

The official text of the *Prohibited List* shall be maintained by WADA and shall be published in English and French. In the event of any conflict between the translations and original English text, the English version posted at www.wada-ama.org shall prevail.



The World Anti-Doping Agency (WADA) was established in 1999 to promote, coordinate, and monitor at the international level the fight against doping in sport in all its forms. WADA is composed and funded equally by the Sports Movement and Governments of the world.



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The use of any drug should be limited to medically justified indications.

All Prohibited Substances shall be considered as "Specified Substances" except Substances in classes S1, S2, S.4.4 and S6.a, and Prohibited Methods M1, M2 and M3.



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What is WADA?

The World Anti-Doping Agency (WADA) is the international independent organization responsible for promoting, coordinating, and monitoring the fight against doping in sport in all its forms.

WADA works towards a vision of the world that values and fosters doping free sport.

What is the World Anti-Doping Code?

The World Anti-Doping Code (Code) is the document that harmonizes regulations regarding anti-doping in sport across all sports and all countries of the world. The Code provides a framework for anti-doping policies, rules, and regulations for sport organizations and public authorities so that there may be a level playing field for all athletes worldwide.

What is the List?

The List of Prohibited Substances and Methods (List), is the International Standard that designates what is prohibited in- and out-of competition. The List also indicates whether particular substances are banned in particular sports. The List is updated annually, and the most current edition is posted on WADA's Web site at www.wada-ama.org.

What does "Play True" mean?

"Play True" is WADA's tagline. Along with the WADA logo—the green equal sign centered in a black square seen above left—"Play True" expresses the universal spirit of sport practiced naturally within the rules and free from artificial enhancements. The equal sign represents fairness and equity, while the square represents the rules all athletes agree to respect. WADA's colors are also significant: black stands for the fairness of the referee while green evokes the image of health, nature, and the traditional field of play.



How is the List updated?

WADA assumed responsibility for the List in 2004 following implementation of the Code and the associated International Standards (List, Testing, Laboratories, and Therapeutic Use Exemptions). According to the Code, if a substance or method is found to meet two of three criteria (enhances performance, poses a threat to athlete health, violates the spirit of sport), then it is possible that it be considered for placement on the List.

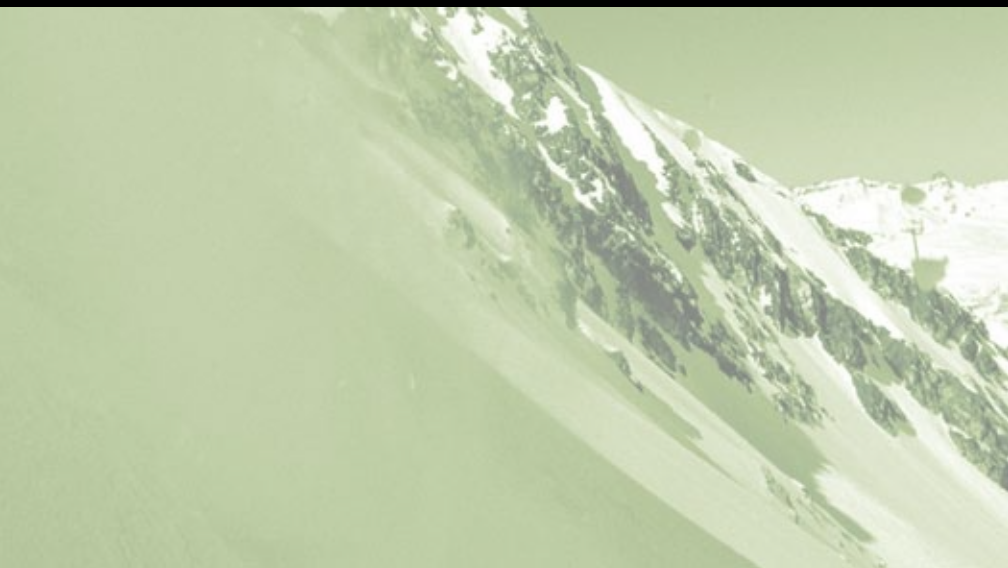
The List is developed through a highly consultative process, beginning with the circulation of a draft List among more than 1,700 stakeholders for comment. The comments received are processed by WADA's scientific committees which are composed of international scientific and anti-doping experts. WADA's Working Group responsible for the List analyzes stakeholder input and presents its conclusions to WADA's Health, Medical and Research Committee, who in turn submits its final recommendations to WADA's Executive Committee at its annual September meeting. The Executive Committee, WADA's ultimate policy-making body, discusses the recommendations and makes a final decision.

The new List is published online by October 1, and goes into effect on January 1 of the following year.





Substances and Methods
Prohibited *at All Times*
(In- and Out-Of-Competition)



Substances and Methods Prohibited at All Times (In- and out-of-competition)

Prohibited Substances

S1. Anabolic Agents

Anabolic agents are prohibited.

1. Anabolic Androgenic Steroids (AAS)

a. Exogenous* AAS, including:

1-androstendiol (5 α -androst-1-ene-3 β ,17 β -diol)
1-androstendione (5 α -androst-1-ene-3,17-dione)
bolandiol (19-norandrostenediol)
bolasterone
boldenone
boldione (androsta-1,4-diene-3,17-dione)
calusterone
clostebol
danazol (17 α -ethynyl-17 β -hydroxyandrost-4-eno[2,3-d]isoxazole)
dehydrochlormethyltestosterone
 (4-chloro-17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one)
desoxymethyltestosterone
 (17 α -methyl-5 α -androst-2-en-17 β -ol)
drostanolone
ethylestrenol (19-nor-17 α -pregn-4-en-17-ol)
fluoxymesterone
formebolone
furazabol
 (17 β -hydroxy-17 α -methyl-5 α -androstan[2,3-c]-furazan)
gestrinone
4-hydroxytestosterone (4,17 β -dihydroxyandrost-4-en-3-one)
mestanolone
mesterolone
metenolone
methandienone (17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one)
methandirol
methasterone (2 α , 17 α -dimethyl-5 α -androstane-3-one-17 β -ol)
methyldienolone (17 β -hydroxy-17 α -methylestra-4,9-dien-3-one)
methyl-1-testosterone
 (17 β -hydroxy-17 α -methyl-5 α -androst-1-en-3-one)
methylnortestosterone (17 β -hydroxy-17 α -methylestr-4-en-3-one)
methyltrienolone
 (17 β -hydroxy-17 α -methylestra-4,9,11-trien-3-one)
methyltestosterone
mibolerone

* "exogenous" refers to a substance which is not ordinarily capable of being produced by the body naturally.

nandrolone
 19-norandrostenedione (estr-4-ene-3,17-dione)
 norboletone
 norclostebol
 norethandrolone
 oxabolone
 oxandrolone
 oxymesterone
 oxymetholone
 prostanazol (17 β -hydroxy-5 α -androstano[3,2-c] pyrazole)
 quinbolone
 stanozolol
 stenbolone
 1-testosterone (17 β -hydroxy-5 α -androst-1-en-3-one)
 tetrahydrogestrinone (18a-homo-pregna-4,9,11-trien-17 β -ol-3-one)
 trenbolone
 and other substances with a similar chemical structure or similar biological effect(s).

b. Endogenous** AAS, when administered exogenously:

androstenediol (androst-5-ene-3 β ,17 β -diol)
 androstenedione (androst-4-ene-3,17-dione)
 dihydrotestosterone (17 β -hydroxy-5 α -androstan-3-one)
 prasterone (dehydroepiandrosterone, DHEA)
 testosterone

and the following metabolites and isomers:

5 α -androstane-3 α ,17 α -diol
 5 α -androstane-3 α ,17 β -diol
 5 α -androstane-3 β ,17 α -diol
 5 α -androstane-3 β ,17 β -diol
 androst-4-ene-3 α ,17 α -diol
 androst-4-ene-3 α ,17 β -diol
 androst-4-ene-3 β ,17 α -diol
 androst-5-ene-3 α ,17 α -diol
 androst-5-ene-3 α ,17 β -diol
 androst-5-ene-3 β ,17 α -diol
 4-androstenediol (androst-4-ene-3 β ,17 β -diol)
 5-androstenedione (androst-5-ene-3,17-dione)
 epi-dihydrotestosterone
 epitestosterone
 3 α -hydroxy-5 α -androstan-17-one
 3 β -hydroxy-5 α -androstan-17-one
 19-norandrosterone
 19-noretiocholanolone.

** "endogenous" refers to a substance which is capable of being produced by the body naturally.



[Comment to class S1.1b:

Where an anabolic androgenic steroid is capable of being produced endogenously, a *Sample* will be deemed to contain such *Prohibited Substance* and an *Adverse Analytical Finding* will be reported where the concentration of such *Prohibited Substance* or its metabolites or markers and/or any other relevant ratio(s) in the *Athlete's Sample* so deviates from the range of values normally found in humans that it is unlikely to be consistent with normal endogenous production. A *Sample* shall not be deemed to contain a *Prohibited Substance* in any such case where an *Athlete* proves that the concentration of the *Prohibited Substance* or its metabolites or markers and/or the relevant ratio(s) in the *Athlete's Sample* is attributable to a physiological or pathological condition.

In all cases, and at any concentration, the *Athlete's Sample* will be deemed to contain a *Prohibited Substance* and the laboratory will report an *Adverse Analytical Finding* if, based on any reliable analytical method [e.g. *IRMS*], the laboratory can show that the *Prohibited Substance* is of exogenous origin. In such case, no further investigation is necessary.

When a value does not so deviate from the range of values normally found in humans and any reliable analytical method [e.g. *IRMS*] has not determined the exogenous origin of the substance, but if there are indications, such as a comparison to endogenous reference steroid profiles, of a possible *Use of a Prohibited Substance*, or when a laboratory has reported a T/E ratio greater than four [4] to one [1] and any reliable analytical method [e.g. *IRMS*] has not determined the exogenous origin of the substance, further investigation shall be conducted by the relevant *Anti-Doping Organization* by reviewing the results of any previous test(s) or by conducting subsequent test(s).

When such further investigation is required the result shall be reported by the laboratory as atypical and not as adverse. If a laboratory reports, using an additional reliable analytical method [e.g. *IRMS*], that the *Prohibited Substance* is of exogenous origin, no further investigation is necessary and the *Sample* will be deemed to contain such *Prohibited Substance*. When an additional reliable analytical method [e.g. *IRMS*] has not been applied, and a minimum of three previous test results are not available, a longitudinal profile of the *Athlete* shall be established by performing three no-advance notice tests in a period of three months by the relevant *Anti-Doping Organization*. The result that triggered this longitudinal study shall be reported as atypical. If the longitudinal profile of the *Athlete* established by the subsequent tests is not physiologically normal, the result shall then be reported as an *Adverse Analytical Finding*.

In extremely rare individual cases, boldenone of endogenous origin can be consistently found at very low nanograms per milliliter (ng/mL) levels in urine. When such a very low concentration of boldenone is reported by a laboratory and the application of any reliable analytical method [e.g. *IRMS*] has not determined the exogenous origin of the substance, further investigation may be conducted by subsequent test(s).

For 19-norandrosterone, an *Adverse Analytical Finding* reported by a laboratory is considered to be scientific and valid proof of exogenous origin of the *Prohibited Substance*. In such case, no further investigation is necessary.

Should an *Athlete* fail to cooperate in the investigations, the *Athlete's Sample* shall be deemed to contain a *Prohibited Substance*.]



2. Other Anabolic Agents

Including but not limited to:

clenbuterol
selective androgen receptor modulators (SARMs)
tibolone
zeranol
zilpaterol.

S2. Hormones and Related Substances

The following substances and their releasing factors, are prohibited:

1. Erythropoiesis-Stimulating Agents (*e.g. erythropoietin (EPO), darbepoietin (dEPO), hematide*)
2. Growth Hormone (GH), Insulin-like Growth Factors (*e.g. IGF-1*), Mechano Growth Factors (MGFs)
3. Chorionic Gonadotrophin (CG) and Luteinizing Hormone (LH) *in males*
4. Insulins
5. Corticotrophins

and other substances with similar chemical structure or similar biological effect(s).

[Comment to class S2:

Unless the *Athlete* can demonstrate that the concentration was due to a physiological or pathological condition, a *Sample* will be deemed to contain a *Prohibited Substance* (as listed above) where the concentration of the *Prohibited Substance* or its metabolites and/or relevant ratios or markers in the *Athlete's Sample* satisfies positivity criteria established by WADA or otherwise so exceeds the range of values

normally found in humans that it is unlikely to be consistent with normal endogenous production.

If a laboratory reports, using a reliable analytical method, that the *Prohibited Substance* is of exogenous origin, the *Sample* will be deemed to contain a *Prohibited Substance* and shall be reported as an *Adverse Analytical Finding*.]

S3. Beta-2 Agonists

All beta-2 agonists including their D- and L-isomers are prohibited.

Therefore, formoterol, salbutamol, salmeterol and terbutaline when administered by inhalation also require a Therapeutic Use Exemption in accordance with the relevant section of the International Standard for Therapeutic Use Exemptions.

Despite the granting of a Therapeutic Use Exemption, the presence of salbutamol in urine in excess of 1000 ng/mL will be considered an *Adverse Analytical Finding* unless the *Athlete* proves, through a controlled pharmacokinetic study, that the abnormal result was the consequence of the use of a therapeutic dose of inhaled salbutamol.

S4. Hormone Antagonists and Modulators

The following classes are prohibited:

1. Aromatase inhibitors *including, but not limited to:*
anastrozole
letrozole
aminoglutethimide
exemestane
formestane
testolactone.
2. Selective Estrogen Receptor Modulators (SERMs) *including, but not limited to:*
raloxifene
tamoxifen
toremifene.
3. Other anti-estrogenic substances *including, but not limited to:*
clomiphene
cyclofenil
fulvestrant.
4. Agents modifying myostatin function(s) *including, but not limited to:*
myostatin inhibitors.



S5. Diuretics and Other Masking Agents

Masking agents are prohibited. They include:

Diuretics

probenecid

plasma expanders (e.g. intravenous administration of albumin, dextran, hydroxyethyl starch and mannitol)

and other substances with similar biological effect(s).

Diuretics include:

acetazolamide

amiloride

bumetanide

canrenone

chlorthalidone

etacrynic acid

furosemide

indapamide

metolazone

spironolactone

thiazides (e.g. bendroflumethiazide, chlorothiazide, hydrochlorothiazide)

triamterene

and other substances with a similar chemical structure or similar biological effect(s) (except drosperinone and topical dorzolamide and brinzolamide, which are not prohibited).

[Comment to class S5:

A Therapeutic Use Exemption is not valid if an *Athlete's* urine contains a diuretic in association with threshold or sub-threshold levels of an exogenous *Prohibited Substance(s)*.]



Prohibited Methods

M1. Enhancement of Oxygen Transfer

The following are prohibited:

1. Blood doping, including the use of autologous, homologous or heterologous blood or red blood cell products of any origin.
2. Artificially enhancing the uptake, transport or delivery of oxygen, including but not limited to perfluorochemicals, efaproxiral (RSR13) and modified haemoglobin products (*e.g. haemoglobin-based blood substitutes, microencapsulated haemoglobin products*).

M2. Chemical and Physical Manipulation

1. *Tampering*, or attempting to tamper, in order to alter the integrity and validity of *Samples* collected during *Doping Controls* is prohibited. These include but are not limited to catheterisation, urine substitution and/or alteration.
2. Intravenous infusions are prohibited except in the management of surgical procedures, medical emergencies or clinical investigations.

M3. Gene Doping

The transfer of cells or genetic elements or the use of cells, genetic elements or pharmacological agents to modulating expression of endogenous genes having the capacity to enhance athletic performance, is prohibited.

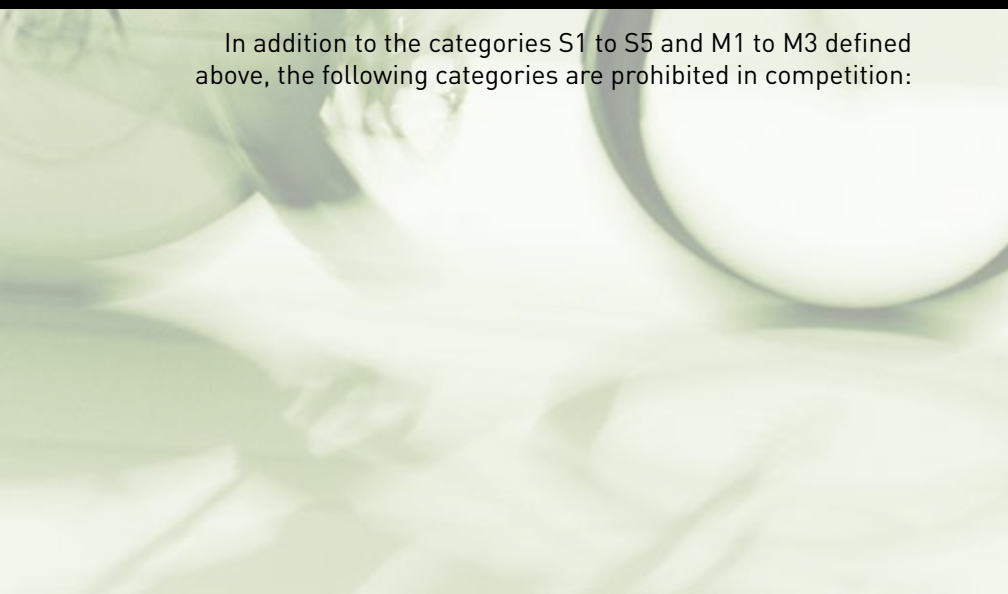
Peroxisome Proliferator Activated Receptor δ (PPAR δ) agonists (*e.g. GW 1516*) and PPAR δ -AMP-activated protein kinase (AMPK) axis agonists (*e.g. AICAR*) are prohibited.





Substances and Methods Prohibited *In-Competition*

In addition to the categories S1 to S5 and M1 to M3 defined above, the following categories are prohibited in competition:



Substances and Methods Prohibited *In-Competition*

In addition to the categories S1 to S5 and M1 to M3 defined previously, the following categories are prohibited in competition:

Prohibited Substances

S6. Stimulants

All stimulants (including both their D- & L- optical isomers where relevant) are prohibited, except imidazole derivatives for topical use and those stimulants included in the 2009 Monitoring Program.*

Stimulants include:

a. Non Specified Stimulants:

adrafinil	fenfluramine
amfepramone	fenproporex
amiphenazole	furfenorex
amphetamine	mefenorex
amphetaminil	mephentermine
benzphetamine	mesocarb
benzylpiperazine	methamphetamine(D-)
bromantan	methylenedioxyamphetamine
clobenzorex	methylenedioxymethamphetamine
cocaine	p-methylamphetamine
cropropamide	modafinil
crotetamide	norfenfluramine
dimethylamphetamine	phendimetrazine
etilamphetamine	phenmetrazine
famprofazone	phentermine
fencamine	4-phenylpiracetam (carphedon)
fenetylline	prolintane.

A stimulant not expressly listed in this section is a Specified Substance.

* The following substances included in the 2009 Monitoring Program (bupropion, caffeine, phenylephrine, phenylpropanolamine, pipradol, pseudoephedrine, synephrine) are not considered as *Prohibited Substances*.

b. Specified Stimulants (examples):

Adrenaline**	nikethamide
cathine***	norfenefrine
ephedrine****	octopamine
etamivan	oxilofrine
etilefrine	parahydroxyamphetamine
fenbutrazate	pemoline
fencamfamin	pentetrazol
heptaminol	phenpromethamine
isometheptene	propylhexedrine
levmetamphetamine	selegiline
meclofenoxate	sibutramine
methylephedrine****	strychnine
methylphenidate	tuaminoheptane

and other substances with a similar chemical structure
or similar biological effect(s).

- ** **Adrenaline** associated with local anaesthetic agents or by local administration (*e.g. nasal, ophthalmologic*) is not prohibited.
- *** **Cathine** is prohibited when its concentration in urine is greater than 5 micrograms per milliliter.
- **** Each of **ephedrine** and **methylephedrine** is prohibited when its concentration in urine is greater than 10 micrograms per milliliter.

S7. Narcotics

The following narcotics are prohibited:

buprenorphine
dextromoramide
diamorphine (heroin)
fentanyl and its derivatives
hydromorphone
methadone
morphine
oxycodone
oxymorphone
pentazocine
pethidine.



S8. Cannabinoids

Cannabinoids (*e.g. hashish, marijuana*) are prohibited.

S9. Glucocorticosteroids

All glucocorticosteroids are prohibited when administered by oral, intravenous, intramuscular or rectal routes.

In accordance with the International Standard for Therapeutic Use Exemptions, a declaration of use must be completed by the *Athlete* for glucocorticosteroids administered by intraarticular, periarticular, peritendinous, epidural, intradermal and inhalation routes, except as noted below.

Topical preparations when used for auricular, buccal, dermatological (including iontophoresis/phonophoresis), gingival, nasal, ophthalmic and perianal disorders are not prohibited and neither require a Therapeutic Use Exemption nor a declaration of use.



Substances Prohibited
in Particular Sports



Substances Prohibited in Particular Sports

P1. Alcohol

Alcohol (ethanol) is prohibited *In-Competition* only, in the following sports. Detection will be conducted by analysis of breath and/or blood. The doping violation threshold (haematological values) is 0.10 g/L.

Aeronautic (FAI)	Modern Pentathlon (UIPM)
Archery (FITA, IPC)	<i>for disciplines involving shooting</i>
Automobile (FIA)	Motorcycling (FIM)
Boules (IPC bowls)	Ninepin and Tenpin Bowling (FIQ)
Karate (WKF)	Powerboating (UIM)

P2. Beta-Blockers

Unless otherwise specified, beta-blockers are prohibited *In-Competition* only, in the following sports.

Aeronautic (FAI)	Modern Pentathlon (UIPM)
Archery (FITA, IPC)	<i>for disciplines involving shooting</i>
<i>also prohibited Out-of-Competition</i>	Ninepin and Tenpin Bowling (FIQ)
Automobile (FIA)	Powerboating (UIM)
Billiards and Snooker (WCBS)	Sailing (ISAF)
Bobsleigh (FIBT)	<i>for match race helms only</i>
Boules (CMSB, IPC bowls)	Shooting (ISSF, IPC)
Bridge (FMB)	<i>also prohibited Out-of-Competition</i>
Curling (WCF)	Skiing/Snowboarding (FIS)
Golf (IGF)	<i>in ski jumping, freestyle aerials/half-pipe and snowboard halfpipe/big air</i>
Gymnastics (FIG)	Wrestling (FILA)
Motorcycling (FIM)	

Beta-blockers include, but are not limited to, the following:

acebutolol	labetalol
alprenolol	levobunolol
atenolol	metipranolol
betaxolol	metoprolol
bisoprolol	nadolol
bunolol	oxprenolol
carteolol	pindolol
carvedilol	propranolol
celiprolol	sotalol
esmolol	timolol.

HEADQUARTERS

The World Anti-Doping Agency

800 Place Victoria - Suite 1700
P.O. Box 120, Montreal, QC
Canada H4Z 1B7
Tel.: +1 514 904 9232
Fax: +1 514 904 8650

e-mail: info@wada-ama.org

REGIONAL OFFICES

Africa Regional Office

The World Anti-Doping Agency (WADA)

Protea Assurance Building
8th Floor
Greenmarket Square, Cape Town
8001 South Africa
Tel.: +27 21 483 9790
Fax: +27 21 483 9791

Asia/Oceania Regional Office

The World Anti-Doping Agency (WADA)

C/O Japan Institute of Sports Sciences
3-15-1 Nishigaoka, Kita-Ku
Tokyo
115-0056 Japan
Tel.: +81 3 5963 4321
Fax: +81 3 5963 4320

European Regional Office

The World Anti-Doping Agency (WADA)

MSI Maison du Sport International
Avenue de Rhodanie 54
1007 Lausanne
Switzerland
Tel.: +41 21 343 43 40
Fax: +41 21 343 43 41

Latin American Regional Office

The World Anti-Doping Agency (WADA)

World Trade Center Montevideo
Tower II
Unit 712
Calle Luis A De Herrera 1248
Montevideo, Uruguay
Tel.: +598 2 623 5206
Fax: +598 2 623 5207

www.wada-ama.org

