



INTERNATIONAL PROHIBITED / FORBIDDEN SUBSTANCE THRESHOLDS

The International Federation of Horseracing Authorities have established international thresholds for:

- substances endogenous to the horse
- substances arising from plants traditionally grazed or harvested as equine feed
- substances in equine feed arising from contamination during cultivation, processing or treatment, storage, or transportation

As an International Federation of Horseracing Authorities member the National Horseracing Authority of Southern Africa applies these thresholds / concentrations which are provided below.

Arsenic	<ul style="list-style-type: none"> • 0.3 microgram total arsenic per millilitre in urine
Boldenone	<ul style="list-style-type: none"> • 0.015 microgram free and conjugated boldenone per millilitre in urine from male horses (other than geldings)
Carbon dioxide	<ul style="list-style-type: none"> • 36 millimole available carbon dioxide per litre in plasma
Cobalt	<ul style="list-style-type: none"> • 0.1 microgram total cobalt per millilitre in urine • 0.025 microgram total cobalt (free and protein bound) per millilitre in plasma
Estradiol in male horses (other than geldings)	<ul style="list-style-type: none"> • 0.045 microgram free and glucuroconjugated 5α-estrane-3β,17α-diol per millilitre in urine, when, at the screening stage, the free and glucuroconjugated 5α-estrane-3β, 17α-diol exceeds the free and glucuroconjugated 5,10 estrene-3β,17α-diol in the urine.
Hydrocortisone	<ul style="list-style-type: none"> • 1 microgram hydrocortisone per millilitre in urine
Methoxytyramine	<ul style="list-style-type: none"> • 4 microgram free and conjugated 3-methoxytyramine per millilitre in urine
Salicylic acid	<ul style="list-style-type: none"> • 750 microgram salicylic acid per millilitre in urine, or • 6.5 microgram salicylic acid per millilitre in plasma
Testosterone	<ul style="list-style-type: none"> • 0.02 microgram free and conjugated testosterone per millilitre in urine from geldings when, at the screening stage, the free and conjugated testosterone exceeds five times the free and conjugated epi-testosterone, or • 0.055 microgram free and conjugated testosterone per millilitre in urine from fillies and mares (unless in foal) • 100 picogram free testosterone per millilitre in plasma from geldings, fillies and mares (unless in foal)

Prednisolone	<ul style="list-style-type: none">• 0.01 microgram free prednisolone per millilitre in urine
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- *No determination and consideration of the specific gravity of a horse urine specimen is required when comparing its concentration with a urinary threshold.*
- *The conjugated substance is the substance that can be liberated from conjugates.*
- *The free substance is the substance which is not conjugated (which is unconjugated).*
- *Each threshold, including those for the same substance in urine and plasma, can be applied independently.*

The concentrations listed above have been determined to be the maximum concentration permitted in a specimen taken from any horse.

In terms of Rules 73.4 and Rule 74 the abovementioned substances shall be prohibited substances if the concentration found in a specimen exceeds the concentration set out above.

Application of International Threshold Values to Out of Competition Testing collected specimens

International threshold values for Arsenic, Boldenone, Carbon dioxide, Cobalt, Dimethylsulfoxide (DMSO), Estranediol, Hydrocortisone, Methoxytyramine, Prednisolone, Salicylic Acid and Testosterone are applicable to Out of Competition Testing (OOCT) collected specimens. For those substances which are not Forbidden Substances these may not be actionable if a legitimate treatment is appropriately recorded in the relevant Veterinary Treatment Register.