



SGS VETERINARY DRUG RESIDUE TESTING

MONITORING LIMITS FOR A SAFER FOOD SUPPLY CHAIN

We all benefit from commercially produced veterinary drugs that improve animal health and reduce production costs. For over 50 years, antimicrobials, anti-inflammatory medicines and hormones have been commonly used in farming practices to treat disease and promote growth in animals and seafood. The majority of animal products remain safe but the illegal use of prohibited drugs can leave harmful residues in animal products that enter the food chain. SGS Veterinary Drug Residue Testing maintains the quality image of your animal products. We supply testing you can trust, delivered by an international network of laboratories and expert technicians. To protect consumer health and meet worldwide regulations, you need accurate results of the residue levels required for your seafood, meat or other products. Partnering with SGS is an assurance of the safety controls you place on your products intended for human consumption.

THE RISKS FROM VETERINARY DRUG RESIDUES

Harmful animal drug residues in the food chain pose a threat to consumers. Whether residues arrive in the food chain by illegal use of prohibited drugs, or legal drugs inappropriately administered, the fact remains that human ingestion of animal drug residues has been linked to increased drug-resistance of bacteria that cause human diseases. In addition to the development of resistant bacterial strains,

the use of growth hormones and anti-inflammatory drugs has also come under the scrutiny of regional and international organisations. It has been identified that when residues containing growth hormones which have carcinogenic properties and anti-inflammatory drugs pass into the food chain it can lead to gastric intestinal problems.

With strict regulations and government controls worldwide, the monitoring of animal drug residues is becoming increasingly complex and demanding. For farmers, producers, processors, importers or exporters of animal-based food products the risk of failing to comply with legally permitted maximum limits can affect not only your brand and your profits, but also consumer health.

POLICIES AND REGULATIONS

The Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF) recommends Maximum Residue Limits (MRLs) for veterinary drugs.

The Committee determines priorities concerning residues of veterinary drugs in foods, develops codes of practice where necessary and investigates methods of sampling and analysis of veterinary drug residues in food.

MRLs for residues of veterinary drugs are the recommended maximum concentration of residue, which is permitted or recognised as acceptable, in or on a food product. They are expressed in mg/kg or ug/kg on a fresh weight basis and are based on the type and amount of residue considered to be an acceptable risk level for human health. When establishing MRLs, limits may be reduced in line with good veterinary practices for the use of veterinary drugs, and consideration is also given to residues from food of plant origin, or the environment.

An Acceptable Daily Intake (ADI) is an estimate, established by the Joint FAO/WHO Expert Committee on Food Additives (JECFA), representing the amount of veterinary drugs, expressed in relation to body weight, which can be ingested daily over a lifetime without leading to appreciable health risks. The Food and Agriculture Organisation of the United Nations (FAO) and the World Health Organisation (WHO) operate together with the Codex Alimentarius Commission (CAC).

CAC is an intergovernmental body comprising 185 Codex Members: 184 Member Countries and 1 Member Organisation (EU).

These organisations, in collaboration with the World Organisation for Animal Health, have also developed global guidelines for the containment of antimicrobial resistance in animals intended for

To learn how SGS can help you with Veterinary Drug Residue Testing, visit www.sgs.com/foodsafety or contact foodservices@sgs.com for more information.

food. The principles include “prudent or judicious use” for feed additive antibiotics in food producing animals to ensure veterinary products are used in an appropriate manner.

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As the acceptable level for residues in products becomes lower and lower, and the scope of substances needing monitoring widens, you need to ensure your products are being checked using the most up-to-date testing methods. SGS continues to develop best testing practices in the veterinary drug sector and our rigorous screening program ensures that your products meet even the most stringent testing levels.

When it comes to protecting consumers’ health and meeting your statutory requirements as an involved player in the food supply chain, our international network of laboratories and global reach make it easier for you to deliver a safe and trusted product.

We test for drug residues using the following:

- **Liquid Chromatography - Mass Spectrometer – Mass Spectrometer (LC/MS-MS)**
- **High Performance Liquid Chromatography with Post Column Fluorescence Derivatisation (HPLC-FLD)**
- **High Performance Liquid Chromatography with Ultraviolet Spectrophotometer (HPLC-UV)**

We can test for a wide range of veterinary drug residues, including:

IN SEAFOOD:

- Fluoroquinolones
- Malachite green, Crystal (Gentian) violet, Brilliant green
- Nitrofurans metabolites
- Chloramphenicol

IN MEAT, POULTRY OR OTHER PRODUCTS:

- Aminoglycosides
- Beta-lactams
- Chloramphenicol
- Macrolides
- Mectin residues
- Nitimidazole
- Quindones
- Sulphonamides
- Clenbuterol
- Carbadox, Ractopamine, Diethylstilbestrol, and others

THE BENEFITS

With SGS Veterinary Drug Residue Testing you have access to our expert teams, who have extensive knowledge of all aspects relating to veterinary drug residue issues. We provide extensive testing so that you can ensure the safety of your products and retain consumer trust in your brand. Our global presence means we can ensure your products are safe to market, reducing risk to everyone involved in your global food chain.

WHY SGS?

SGS is the world’s leading inspection, verification, testing and certification company. Recognised as the global benchmark for quality and integrity, we employ over **70,000 people** and operate an international network with over **1,350 offices** and **laboratories** around the world.

SGS provides a comprehensive suite of solutions to the food industry combining audits and certification, testing and analysis, inspection, training and technical services.