

A.L. 98 ta' l-2005

**ATT DWAR IS-SERVIZZI VETERINARJI
(KAP. 437)**

**Regoli tal-2005 dwar Metodi ghat-Tehid ta' Kampjuni u metodi
ta' analizi ghall-kontroll ufficjali tal-livelli tač-čomb, kadmju,
merkurju u 3-MCPD fl-Ghalf**

BIS-SAHHA tad-disposizjonijiet ta' l-artiklu 25 tal-Att dwar is-Servizzi Veterinarji, il-Ministru ta' l-Affarijiet Rurali u l-Ambjent bi ftehim mal-Ministeru tas-Sahha, l-Anzjani u Kura fil-Komunità ghamel dawn ir-regoli li ġejjin:-

1. (1) It-titlu ta' dawn ir-regoli hu Regoli ta' l-2005 dwar Metodi ghat-Tehid ta' Kampjuni u metodi ta' analizi ghall-kontroll ufficjali tal-livelli tač-čomb, kadmju, merkurju u 3-MCPD fl-ghalf. Titolu u skop.

(2) L-iskop ta' dawn ir-regoli huwa l-implimentazzjoni tar-regoli li jinsabu taht id-Direttiv tal-Kunsill tal-Unjoni Ewropea 2001/22/KE dwar il-metodi ghat-tehid ta' kampjuni u l-metodi ta' analizi ghall-kontroll ufficjali tal-livelli tač-čomb, kadmju, merkurju u 3-MCPD fl-ghalf.

2. Ghall-iskop ta' dawn ir-regoli, u sakemm il-kuntest ma' jirrikjedix mod iehor: Tifsiriet.

“l-awtorità kompetenti” tfisser is-Servizzi Veterinarji ta' Malta skond kif provdut taht l-artikolu 2 ta' l-Att dwar is-Servizzi Veterinarji;

“l-ammont tal-kampjun” tfisser it-total kombinat tal-kampjuni inkriminali kollha mehudin mill-lott jew mis-sublott;

“kampjun inkriminali” tfisser il-kwantità tal-materjal mehud minn post wiehed mill-lott jew mis-sublott;

“kampjun mil-laboratorju” tfisser il-kampjun intiż ghall-laboratorju;

“Il-komunità” tfisser il-Komunità Ewropea skond kif stabbilita taht it-Trattat li jwaqqaf il-Komunità Ewropea;

“il-Kummissjoni” tfisser il-Kummissjoni Ewropea;

“lott” tfisser kwantità identifikabbli ta’ ikel ikkonsenjat mill-veterinarju uffiċjali li għandu jkollu karatteristiċi komuni, bħal l-origini, il-varjetà, it-tip ta’ pakkettjar, min jippakkja, minn jikkonsenja jew il-marki. Fil-każ tal-hut, anki d-daqs tal-hut għandu jiġi mqabbel;

“pajjiż terz” tfisser Stat li ma huwiex membru tal-Komunità Ewropea;

“is-Servizzi Veterinarji” tfisser l-awtorità kompetenti f’Malta skond l-artiklu 2 ta’ Att dwar is-Servizzi Veterinarji;

“Stat Membru” tfisser Stat li huwa Membru tal-Komunità Ewropea;

“sublott” tfisser il-parti speċifika minn lott akbar sabiex jiġi applikat il-metodu tat-tehid tal-kampjuni fuq dik il-parti magħzula. Kull sublott għandu jkun fisikament separat u identifikat.

Tehid ta’ kampjuni għal kontrolli uffiċjali.

3. Malta għandha tiehu l-miżuri neċessarji kollha sabiex jiġi żgurat li t-tehid tal-kampjuni għall-kontroll uffiċjali tal-livelli taċ-ċomb, kadmju, merkurju u 3-MCPD fl-għalf għandhom isiru skond il-metodi deskritti fl-Iskeda I li tinsab ma’ dawn ir-regoli.

Preparazzjoni ta’ kampjuni u metodi ta’ analiżi.

4. Malta għandha tiehu l-miżuri kollha neċessarji sabiex jiżgura illi l-preparazzjoni ta’ kampjuni u l-metodi għall-analiżi użati għall-kontroll uffiċjali tal-livelli taċ-ċomb, kadmju, merkurju u 3-MCPD fl-għalf huma konformi mal-kriterji deskritti fl-Iskeda II li tinstab ma’ dawn ir-regoli.

Procedura ta’ referenza u applikabilità.

5. Meta Malta tadotta dawn id-disposizzjonijiet, id-disposizzjonijiet għandu jkun fihom referenza għal dawn ir-regoli jew għandu jkollhom referenza bħal dik fil-waqt tal-publikazzjoni uffiċjali tagħhom. Il-proċedura għal dik ir-referenza għandha tkun dik li tkun tapplika f’Malta.

SKEDA I**METODI GHAT-TEHID TA' KAMPJUNI GHALL-KONTROLL UFFIĊJALI TAL-LIVELLI
TAĊ-ĊOMB, KADMJU, MERKURJU U 3-MCPD F'ĊERTU GHALF****1. GHAN U SKOP**

Il-kampjuni li huma intenzjonati għall-kontrolli uffiċjali tal-livelli taċ-ċomb, kadmju, merkurju u 3-MCPD kontenuti f'għalf għandhom jittieġdu skond il-metodu deskritt hawn taht. Il-kampjuni totali miksuba b'dan il-mod għandhom jitqiesu bħala rapprezentativi tal-lottijiet jew sublottijiet minn fejn jittiehdu. Tharis mall-livelli massimi indikati fir-Regolament (KE) Nru 466/2001 għandu jiġi stabbilit a bazi tal-livelli determinati fil-kampjuni tal-laboratorju.

2. DISPOSIZZJONIJIET ĠENERALI**2.1. Persunal**

It-tehid tal-kampjuni għandu jsir minn persuna awtorizzata kwalifikata skond kif speċifikat minn Malta.

2.2. Materjal li għandhom jittiehdu kampjuni minnu

Il-kampjuni minn kull lot li għandu jiġi eżaminat għandhom jittiehdu separatament.

2.3. Prekawzjonijiet li għandhom jittiehdu

Fil-kors tat-tehid tal-kampjuni u tal-preparazzjoni tal-kampjuni għal laboratorju, għandhom jittiehdu prekawzjonijiet sabiex jiġu evitati tibdiliet li jistgħu jolqtu l-kontenut taċ-ċomb, kadmju, merkurju u 3-MCPD, sal-punt li jistgħu jolqtu d-determinazzjoni analitika jew il-kampjuni totali ma' jkollomx rappreżentanza.

2.4. Kampjuni inkriminali

Safejn huwa possibbli l-kampjuni inkriminali għandhom jittiehdu f'diversi postijiet u għandhom jiġu distribwiti tul il-lott jew sublott kollu. Divergenza minn din il-proċedura għandha tiġi registrata f'*record* ipprovdut taht 2.8.

2.5. Preparazzjoni tal-kampjun totali

Il-kampjun totali huwa magħmul billi jiġu magħquda il-kampjuni inkriminali kollha. Dan għandu jkun mill-inqas kilogramma waħda sakemm dan ma' jkunx pratikabbli, eż. meta' ittiehed kampjun minn pakett wiehed waħdu.

2.6. Subdiviżjoni tal-kampjun totali fil-kampjuni tal-laboratorju, għall-skopijiet ta' infurzar, difiża u kontroll

Il-kampjuni tal-laboratorju għall-iskopijiet ta' infurzar, kummerċ (difiza) u kontroll għandu jittiehed minn kampjuni totali omogeneizzati sakemm dan ma' jmurx kontra ir-regolamenti tas-Servizzi Veterinarji dwar it-tehid tal-kampjuni. Id-daqs tal-kampjuni tal-laboratorju għall-infurzar għandhom ikunu suffiċjenti sabiex jippermettu mill-inqas analizi doppja.

2.7. Ippakkettjar u trasmissjoni tal-kampjuni totali u għall-laboratorju

Kull kampjun totali u għall-laboratorju għandu jittiehed f'kontenitur nadif, li joffri protezzjoni xierqa mill-kontaminazzjoni, mit-telf ta' analiti minhabba assorbiment fil-hitan interni tal-kontenitur u kontra danni waqt il-vjaġġ/trasferiment. Kull prekawżjoni neċessarja għandha tittiehed sabiex jiġu evitat it-tibdil fil-kompożizzjoni tal-kampjuni totali u għall-laboratorju li jista' jsehh waqt it-trasportazzjoni jew il-ħażna.

2.8. Siġillar u ttimbrar tal-kampjuni totali u għall-laboratorju

Kull kampjun mehud għal użu uffiċjali għandu jiġi siġillat fil-post tat-tehid tal-kampjuni u identifikat skond ir-Regolamenti tas-Servizzi Veterinarji. Għandu jinżamm *record* ta' kull tehid ta' kampjuni, sabiex kull lot ikun jista' jiġi identifikat b'mod mhux ambigwu u għandu jindika d-data u l-post tat-tehid tal-kampjuni flimkien ma' kull informazzjoni oħra li jista' jkun ta' għajuna għall-analista.

3. PJANIJIET GHAT-TEHID TAL-KAMPJUNI

It-tehid tal-kampjuni għandu idealment isir fejn dik il-kommodita' tidhol fil-katina tal-ikel u jiġi identifikat lot li ma' jidirx. Il-metodu użat għat-tehid tal-kampjuni għandu jiżgura li l-kampjuni totali jirrapreżentaw l-lot li għandu jiġi kontrollat.

3.1. Ghadd ta' kampjuni inkrimentali

Fil-kaz ta' prodotti likwidi fejn distribuzzjoni omogenea ta' kontaminant jista' jiġi pretiż għewwa lott partikolari, ikun suffiċjenti li jittiehed kampjun inkrimentali wiehed ta' kull lott li jiffurma parti tal-kampjun totali. Għandha tingħata referenza lin-numru tal-lott. Prodotti likwidi li jikkonsistu minn proteini veġetali idzolizati (HPV) jew sugu tas-soja likwida għandhom jithaltu sew, jew jiġu omogeneizzati b'mezzi oħra xierqa, qabel ma jittiehed il-kampjun inkrimentali.

Fir-rigward ta' prodotti ohra, l-inqas għadd ta' kampjuni inkrimentali li jittieħdu mill-lott, għandhom jinghataw kif jidher f'Tabella 1. Il-kampjuni inkrimentali għandhom ikunu ta' l-istess piż. Divergenza minn din il-proċedura għandha tiġi registrata fir-registru provdut taħt 2.8.

Table 1: L-inqas għadd ta' kampjuni inkrimentali li għandhom jittieħdu mill-lott

Piż tal-lott (kg)	L-inqas għadd tal-kampjuni inkrimentali li għandhom jittieħdu
< 50	3
50 to 500	5
> 500	10

Jekk il-lott jikkonsisti f' paketti individwali, l-għadd tal-paketti li għandhom jittieħdu fil-forma ta' kampjuni totali huwa muri fit-Tabella 2.

Tabella 2: Għadd tal-paketti (kampjuni inkrimentali) li għandu jittieħed fil-forma ta' kampjuni totali jekk il-lott jikkonsisti minn paketti individwali

Għadd ta' paketti jew unitajiet fil-lott	Għadd ta' paketti jew unitajiet li għandhom jittieħdu
1 sa 25	pakkett wieħed jew unita
26 sa 100	Madwar 5 %, mill-inqas 2 paketti jew unitajiet
> 100	Madwar 5 %,bil-massimu ta' 10 paketti jew unitajiet

4. HARSJEN TAL-LOTT JEW SUBLOTT MA' L-ISPEĊIFIKAZZJONIJIET

Il-laboratorju ta' kontroll għandu janalizza il-kampjun tal-laboratorju għal infurzar ta' mill-inqas żewġ analiżi indipendenti, u għandu jikkalkula l-meżzi tar-reżultati. Il-lott ma' għandux jiġi aċċettat jekk il-mezz huwa konformi mal-livelli massimi rispettivi kif indikati fir-Regolamenti (KE) Nru 466/2001. Għandu jiġi riġettat jekk il-medja tkun teċċedi il-livell massimu rispettiv.

SKEDA II

PREPARAZZJONI TAL-KAMPJUNI U L-KRITERJI GHALL-METODI GHALL-ANALIŻI UŻATI FIL-KONTROLL UFFIĊJALI TAL-LIVELLI TAČ-ĊOMB, MERKURJU U 3-MCPD F'ĊERTI GHALF

1. INTRODUZZJONI

Ir-rekwizit basiku huwa li jiġi ottjenut kampjun mill-laboratorju raprezentant u omogenEu minghajr l-introduzzjoni sekondarja tal-kontaminazzjoni.

2. IL-PROCEDURA SPECIFIKA TAL-PREPARAZZJONI TAL-KAMPJUNI GHAC-ĊOMB, KADMJU U MERKURJU

Hemm hafna proċeduri sodisfaċenti għall-preparazzjoni ta' kampjuni speċifiċi li jistgħu jintużaw għall-prodotti in konsiderazzjoni. Dawk deskritti fl-abboz CEN Standard *'Foodstuffs — Determination of trace elements — Performance criteria and general consideration'* instabu li huma sodisfaċenti iżda oħrajn huma validi bl-istess mod.

Għandhom jiġu innotati il-punti segwenti għal kull proċedura li tista tintuża:

— molluski b'żewġ valvi, krostaċeji u hut żgħir: fejn dawn normalment jittiekl u shah, il-vixxera għandha tiġi inkluża mal-materjal għall-analiżi,

— haxix: il-parti li tittiekl biss għandha tiġi eżaminata, filwaqt li jinżamm amment tar-rekwiziti tar-Regolament (KE) Nru 466/2001.

3. METODU TA' ANALIŻI LI GHANDU JINTUŻA MIL-LABORATORJU U R-REKWIZITI GHALL-KONTROLL TAL-LABORATORJU

3.1. Tifsiriet

Għadd ta' tifsiriet użati l-iktar komunement u li l-laboratorju jinhtieg li juża huma mogħtija hawn taħt:

r = ripetizzjoni (repeatability), il-valur inqas li d-differenza assoluta bejn ir-riżultati ta' zewġ testijiet singoli u miksubin taħt kundizzjonijiet ta' ripetizzjoni (jiġifieri, l-istess kampjun, operator, apparat, laboratorju u intervall ta' qasir zmien) jista' jkun pretiż li jinstab gewwa probabbilita speċifika (tipikament 95%) u b'hekk $r = 2,8 \times sr$.

sr = devjazzjoni *standard*, ikkalukulata minn riżultati generati taħt kundizzjonijiet ta' ripetizzjoni.

$RSDr$ = devjazzjoni relattiva *standard*, kalkulata mir-rizultati generati taht kundizzjonijiet ta' ripetizzjoni $[(sr / x-) \times 100]$, fejn x – huwa l-medja tar-rizultati fuq kampjuni tal-laboratorji kollha.

R = riproduzzjoni, il-valur inqas li d-differenza assoluta fejn ir-rizultati ta' test wahdu magħmul taht kundizzjonijiet ta' riproduzzjoni (jigifieri, fuq materjal identiku miksub minn operatori minn laboratorji differenti, bl-użu ta' metodi ta' ezami *standard*), jista' jigi pretiz li jaqa f'ċerta probabbiltà (tipikament 95 %); $R = 2,8 \times sR$.

sR = devjazzjoni *standard*, kalkulata mir-rizultati taht kundizzjonijiet ta' riproduzzjoni.

$RSDR$ = devjazzjoni relattiva *standard* ikkalkulata minn rizultati generati taht kundizzjonijiet ta' riproduttivi $[(sR / x-) \times 100]$

$HORRATr$ = l- $RSDr$ osservat diviż mill-valur tal- $RSDr$ stimat mis-somma (*equation*) Horwitz bl-użu ta' assunsjoni $r = 0,66R$

$HORRATR$ = l-valur tal- $RSDR$ osservat diviż mill-valur tal- $RSDR$ ikkalkulat mis-somma (*equation*) Horwitz

.

3.2. Rekwiżiti ġenerali

Metodi għall-analizi għall-użu għall-iskop tal-kontroll tal-ikel għandu jkun jikkonforma fejn possibbli mad-dispozizzjonijiet tal-paragrafu 1 u 2 tal-Anness mad-Direttiva 85/591/KE.

Għall-analizi taċ-ċomb fl-inbid, Ir-Regolament tal-Kummissjoni (KE) Nru 2676/90(1) li jiddetermina il-metodi Komunitarji għall-analizi tal-inbejded jindikati il-metodu li għandu jintuża fil-Kapitolu 35 tal-Anness tagħha.

3.3. Rekwiżiti speċifiċi

3.3.1. *Analizi ta' ċomb, kadmju u merkurju*

Il-metodi speċifiċi għad-determinazzjoni tal-kontenut taċ-ċomb, kadmju u merkurju mhumiex preskritti. Il-laboratorji għandhom jużaw metodu konfermat li jissodisfa l-kriterji ta' għemil indikati fit-Tabella 3. Fejn ikun possibbli, il-konferma għandha tinkludi referenza ċertifikata fil-materjali ċertifikati użati għat-testijiet ta' prova.

Tabella 3: Kriterji għall-għemil tal-metodi għall-analizi taċ-ċomb, kadmju u merkurju.

Parametru	Valur/kumment
Applikabilita`	L-ikel speċifikat fir-Regolament (KE) Nru 466/2001
Limitu ta` sejbien	Mhux iktar minn wiehed f`kull għaxra tal-valur tal-ispeċifikazzjoni fir-Regolament (KE) Nru 466/2001, hlief jekk il-valur tal-ispeċifikazzjoni għaċ-ċomb huwa inqas minn 0,1 mg/kg. Fil-każ ta` l-aħħar, mhux iktar minn wiehed f`hamsa tal-valur tal-ispeċifikazzjoni
Limitu tal-kwantifikazzjoni	Mhux iktar minn wiehed f`hamsa tal-valur tal-ispeċifikazzjoni fir-Regolament (KE) Nru 466/2001, hlief jekk il-valur tal-ispeċifikazzjoni għaċ-ċomb ikun inqas minn 0,1 mg/kg. Fl-aħħar każ, mhux iktar minn tnejn f`kull hamsa tal-valur tal-ispeċifikazzjoni
Preċiżjoni	Valuri ta' HORRATr jew HORRATR ta' inqas min 1,5 fil-konferma tat-test kollaborattiv
Rikoveru	80-120 % (kif indikat fl-eżami kollaborattiv)
Speċificità	Hieles minn interferenzi matriċi jew spettrali

3.3.2. Analizi 3-MCPD

Il-metodi speċifiċi għad-determinazzjoni tal-kontenut tal-3-MCPD mhumiex prekritti. Il-laboratorji għandhom jużaw metodu validat li jissodisfa l-kriterju tal-għemil kif indikat fit-Tabella 4. Meta' jkun possibbli, il-validazzjoni għandha tinkludi referenza certifikata fil-materjali certifikati uzati għat-testijiet ta' prova. Metodu speċifiku għe validat permezz ta' testijiet kollaborattivi u intwera li jilhaq il-rekwiziti taht Tabella 4.

Tabella 4: Kriterja għal-għemil tal-metodi għall-analizi tal-3MCPD

Kriterji	Valur Rakommandat	Konċentrazzjoni
Spazzji fil-kamp (Field blanks)	Inqas mill-limitu tas-sejba	—
Rikoveru	75-110 %	Kollha
Limitu ta' kwantifikazzjoni	10 (jew inqas) ig/kg fuq bażi ta' materja niexfa	—
Devjazzjoni <i>standard</i> tas-sinjal indikattiv ta' spazji fil-kamp	Inqas minn 4 ig/kg	—

Stimi preċiżi <i>in-house</i> —	< 4 ig/kg	20 ig/kg
devjazzjoni <i>standard</i> tal-kejl	< 6 ig/kg	30 ig/kg
għar-replikazzjoni	< 7 ig/kg	40 ig/kg
f'konċentrazzjonijiet differenti	< 8 ig/kg	50 ig/kg
	< 15 ig/kg	100 ig/kg

3.4. Stima tal-kalkulazzjonijiet analitiċi veritieri u ta' rikoveru

Fejn huwa possibbli l-verita' tal-analizi għandu jiġi stimat bl-inkluzjoni ta' materjali ċertifikati ta' referenza xierqa tul l-analizi.

Fil-'*Harmonised Guidelines for the Use of Recovery Information in Analytical Measurement*' sviluppat taht l-awspici ta' IUPAC/ISO/AOAC għandu jittiehed in konsiderazzjoni.

Ir-riżultati analitiċi għandu jiġi rapurtat korretement jew le. Il-maniera tar-raportagġ u l-livell tar-rikoveru għandhom jiġu rappurtati.

3.5. Livelli ta' kwalita' tal-laboratorju

Il-laboratorji għandhom jimxu skond id-Direttiva 93/99/KE.

3.6. Expressjoni ta' riżultati

Ir-riżultati għandhom jiġu espressi fl-istess unitajiet bħala l-livell massimu indikat fir-Regolament (KE) Nru 466/2001.

**VETERINARY SERVICES ACT
(CAP. 437)**

**Sampling Methods and the methods of analysis for the official
control of the levels of lead, cadmium, mercury and 3-MCPD in
Foodstuffs Rules, 2005**

IN exercise of the powers conferred under article 25 of the Veterinary Services Act, the Minister for Rural Affairs and the Environment, in agreement with the Minister of Health, the Elderly and Community Care, has made the following rules:-

Title and scope.

1. (1) The title of these rules is the Sampling Methods and the methods of analysis for the official control of the levels of lead, cadmium, mercury and 3-MCPD in Foodstuffs Rules, 2005.

(2) The scope of these rules is to implement the rules found under European Union Council Directive 2001/22/EC on the sampling methods and the methods of analysis for the official control of the levels of lead, cadmium, mercury and 3-MCPD in foodstuffs.

Definitions.

2. For the purposes of these rules, and unless context otherwise requires -

“aggregate sample” means the combined total of all the incremental samples taken from the lot or subplot;

“the Commission” means the European Commission;

“the Community” means the European Community as established under the Treaty establishing the European Community;

“the competent authority” means the Veterinary Services within Malta as provided under article 2 of the Veterinary Services Act;

“incremental sample” means a quantity of material taken from a single place in the lot or subplot;

“laboratory sample” means the sample intended for the laboratory;

“lot” means an identifiable quantity of food delivered at one time and determined by the veterinary official to have common

characteristics, such as origin, variety, type of packing, packer, consignor or markings. In the case of fish, also the size of fish shall be comparable;

“Member State” means a State which is a Member within the European Community;

“sublot” means a designated part of a large lot in order to apply the sampling method on that designated part. Each sublot must be physically separated and identifiable;

“third country” means a State which is not a Member within the European Community;

“Veterinary Services” means the competent authority within the territory of Malta as established under article 2 of the Veterinary Services Act.

3. Malta shall take all measures necessary to ensure that the sampling for the official controls of the levels of lead, cadmium, mercury and 3-MCPD in foodstuffs is carried out in accordance with the methods described in Schedule I to these rules.

Sampling for official controls.

4. Malta shall take all measures necessary to ensure that sample preparation and methods of analyses used for the official control of the levels of lead, cadmium, mercury and 3-MCPD in foodstuffs comply with the criteria described in Schedule II to these rules.

Sample preparation and methods of analyses.

5. When Malta adopts these provisions, the provisions shall contain a reference to these rules or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be that applicable in Malta.

Reference of procedure and applicability.

SCHEDULE I
METHODS OF SAMPLING FOR OFFICIAL CONTROL OF THE LEVELS OF LEAD,
CADMIUM, MERCURY
AND 3-MCPD IN CERTAIN FOODSTUFFS

1. PURPOSE AND SCOPE

Samples intended for the official control of the levels of lead, cadmium, mercury and 3-MCPD contents in foodstuffs shall be taken according to the methods described below. Aggregate samples thus obtained shall be considered as representative of the lots or sublots from which they are taken. Compliance with maximum levels laid down in Regulation (EC) No 466/2001 shall be established on the basis of the levels determined in the laboratory samples.

2. GENERAL PROVISIONS

2.1. Personnel

Sampling shall be performed by an authorised qualified person as specified by Malta.

2.2. Material to be sampled

Each lot which is to be examined must be sampled separately.

2.3. Precautions to be taken

In the course of sampling and preparation of laboratory samples precautions must be taken to avoid any changes which would affect the lead, cadmium, mercury and 3-MCPD contents, adversely affect the analytical determination or make the aggregate samples unrepresentative.

2.4. Incremental samples

As far as possible incremental samples shall be taken at various places distributed throughout the lot or subplot. Departure from this procedure must be recorded in the record provided for under 2.8.

2.5. Preparation of the aggregate sample

The aggregate sample is made up by uniting all incremental samples. It shall be at least 1 kg unless not practical, e.g. when a single package has been sampled.

2.6. Subdivision of aggregate sample in laboratory samples for enforcement, defence and referee purposes

The laboratory samples for enforcement, trade (defence) and referee purposes shall be taken from the homogenised aggregate sample unless this conflicts with Veterinary Services' regulations on sampling. The size of the laboratory samples for enforcement shall be sufficient to allow at least for duplicate analyses.

2.7. Packaging and transmission of aggregate and laboratory samples

Each aggregate and laboratory sample shall be placed in a clean, inert container offering adequate protection from contamination, from loss of analytes by adsorption to the internal wall of the container and against damage in transit. All necessary precautions shall be taken to avoid change of composition of the aggregate and laboratory samples which might arise during transportation or storage.

2.8. Sealing and labelling of aggregate and laboratory samples

Each sample taken for official use shall be sealed at the place of sampling and identified following the Veterinary Services' regulations. A record must be kept of each sampling, permitting each lot to be identified unambiguously and giving the date and place of sampling together with any additional information likely to be of assistance to the analyst.

3. SAMPLING PLANS

Sampling should ideally take place at the point where the commodity enters the food chain and a discrete lot becomes identifiable. The sampling method applied shall ensure that the aggregate sample is representative for the lot that is to be controlled.

3.1. Number of incremental samples

In the case of liquid products for which a homogeneous distribution of the contaminant in question can be assumed within a given lot, it is sufficient to take one incremental sample per lot which forms the aggregate sample. Reference to the lot number shall be given. Liquid products containing hydrolysed vegetable protein (HVP) or liquid soya sauce shall be shaken well, or homogenised by other suitable means, before the incremental sample is taken.

For other products, the minimum number of incremental samples to be taken from the lot shall be as given in Table 1. The incremental samples shall be of similar weight. Departure from this procedure must be recorded in the record provided for under 2.8.

Table 1: Minimum number of incremental samples to be taken from the lot

Weight of lot (kg)	Minimum number of incremental samples to be taken
< 50	3
50 to 500	5
> 500	10

If the lot consists of individual packages, then the number of packages which shall be taken to form the aggregate sample is given in Table 2.

Table 2: Number of packages (incremental samples) which shall be taken to form the aggregate sample if the lot consists of individual packages

Number of packages or units in the lot	Number of packages or units to be taken
1 to 25	1 package or unit
26 to 100	About 5 %, at least 2 packages or units
> 100	About 5 %, at maximum 10 packages or units

4. COMPLIANCE OF THE LOT OR SUBLOT WITH THE SPECIFICATION

The control laboratory shall analyse the laboratory sample for enforcement at least in two independent analyses, and calculate the mean of the results. The lot is accepted if the mean conforms to the respective

maximum level as laid down in Regulation (EC) No 466/2001. It is rejected if the mean exceeds the respective maximum level.

SCHEDULE II
SAMPLE PREPARATION AND CRITERIA FOR METHODS OF ANALYSIS USED IN OFFICAL
CONTROL
OF THE LEVELS OF LEAD, CADMIUM, MERCURY AND 3-MCPD IN CERTAIN
FOODSTUFFS

1. INTRODUCTION

The basic requirement is to obtain a representative and homogeneous laboratory sample without introducing secondary contamination.

2. SPECIFIC SAMPLE PREPARATION PROCEDURES FOR LEAD, CADMIUM AND MERCURY

There are many satisfactory specific sample preparation procedures which may be used for the products under consideration. Those described in the draft CEN Standard 'Foodstuffs — Determination of trace elements — Performance criteria and general consideration' have been found to be satisfactory (a) but others may be equally valid.

The following points must be noted for any procedure used:

- bivalve molluscs, crustaceans and small fish: where these are normally eaten whole, the viscera are to be included in the material to be analysed,
- vegetables: only the edible portion of is to be tested, with note to be taken of the requirements of the Regulation (EC) No 466/2001.

3. METHOD OF ANALYSIS TO BE USED BY THE LABORATORY AND LABORATORY CONTROL REQUIREMENTS

3.1. Definitions

A number of the most commonly used definitions that the laboratory will be required to use are given below:

r = repeatability, the value below which the absolute difference between two single test results obtained under repeatability conditions (i.e., same sample, same operator, same apparatus, same laboratory, and

short interval of time) may be expected to lie within a specific probability (typically 95 %) and hence $r = 2,8 \times sr$.

sr = standard deviation, calculated from results generated under repeatability conditions.

$RSDr$ = relative standard deviation, calculated from results generated under repeatability conditions $[(sr / \bar{x}) \times 100]$, where $\bar{x}$ - is the average of results over all laboratories and samples.

R = reproducibility, the value below which the absolute difference between single test results obtained under reproducibility conditions (i.e., on identical material obtained by operators in different laboratories, using the standardised test method), may be expected to lie within a certain probability (typically 95 %); $R = 2,8 \times sR$.

sR = standard deviation, calculated from results under reproducibility conditions.

$RSDR$ = relative standard deviation calculated from results generated under reproducibility conditions $[(sR / \bar{x}) \times 100]$

$HORRATr$ = the observed $RSDr$ divided by the $RSDr$ value estimated from the Horwitz equation using the assumption $r = 0,66R$

$HORRATR$ = the observed $RSDR$ value divided by the $RSDR$ value calculated from the Horwitz equation (b).

3.2. General requirements

Methods of analysis used for food control purposes must comply whenever possible with the provisions of paragraphs 1 and 2 of the Annex to Directive 85/591/EEC.

For the analysis of lead in wine, Commission Regulation (EEC) No 2676/90(1) determining Community methods for the analysis of wines lays down the method to be used in Chapter 35 of its Annex.

3.3. Specific requirements

3.3.1. Lead, cadmium and mercury analyses

Specific methods for the determination of lead, cadmium and mercury contents are not prescribed. Laboratories shall use a validated method that fulfils the performance criteria indicated in Table 3. Where possible, the validation shall include a certified reference material in the collaborative trial test materials.

Table 3: Performance criteria of methods for lead, cadmium and mercury analyses

Parameter	Value/comment
Applicability	Foods specified in Regulation (EC) No 466/2001
Detection limit	No more than one tenth of the value of the specification in Regulation (EC) No 466/2001, except if the value of the specification for lead is less than 0,1mg/kg. For the latter, no more than one fifth of the value of the specification
Limit of quantification	No more than one fifth of the value of the specification in Regulation (EC) No 466/2001, except if the value of the specification for lead is less than 0,1 mg/kg. For the latter, no more than two fifths of the value of the specification
Precision	HORRATr or HORRATR values of less than 1,5 in the validation collaborative trial
Recovery	80-120 % (as indicated in the collaborative trial)
Specificity	Free from matrix or spectral interferences

3.3.2. 3-MCPD analysis

Specific methods for the determination of 3-MCPD contents are not prescribed. Laboratories shall use a validated method that fulfils the performance criteria indicated in Table 4. Where possible, the validation shall include a certified reference material in the collaborative trial test materials. A specific method has been validated by collaborative trial and has been shown to meet the requirements of Table 4 (c).

Table 4: Performance criteria of methods for 3-MCPD analysis

Criterion	Recommended value	Concentration
Field blanks	Less than the detection limit	—

Recovery	75-110 %	All
Limit of quantification	10 (or less) µg/kg on a dry matter basis	—
Standard deviation of the field blank signal	Less than 4 µg/kg	—
In-house precision estimates — standard deviation of replicate measurements at different concentrations	< 4 µg/kg	20 µg/kg
	< 6 µg/kg	30 µg/kg
	< 7 µg/kg	40 µg/kg
	< 8 µg/kg	50 µg/kg
	< 15 µg/kg	100 µg/kg

3.4. Estimation of the analytical trueness and recovery calculations

Wherever possible the trueness of the analysis shall be estimated by including suitable certified reference materials in the analytical run.

The ‘Harmonised Guidelines for the Use of Recovery Information in Analytical Measurement’ (d) developed under the auspices of IUPAC/ISO/AOAC shall be taken into account.

The analytical result shall be reported corrected or uncorrected. The manner of reporting and the level of recovery must be reported.

3.5. Laboratory quality standards

Laboratories must comply with Directive 93/99/EEC.

3.6. Expression of results

The results shall be expressed in the same units as the maximum levels laid down in Regulation (EC) No 466/2001.

