



Republic of the Philippines
DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
Elliptical Road, Diliman,
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DEPARTMENT CIRCULAR

NO 09
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SUBJECT: PROCEDURES FOR THE HYGIENIC HANDLING PRACTICES AND USE OF MECHANICALLY SEPARATED MEAT (MSM)

WHEREAS, Chapter I, Article 6 of Republic Act (RA) No 7394, otherwise known as the "Consumer Act of the Philippines," requires the Department of Agriculture to provide safety and quality standards for consumer products related to agriculture to assure the protection of the public against unreasonable risks of injury and hazards to health;

WHEREAS, Section 21 of RA No 7160, otherwise known as the "Local Government Code," requires the provincial, municipal and city governments to regulate the preparation and sale of foodstuff for public consumption such as meat;

WHEREAS, Chapters III and IV of Presidential Decree No 856, otherwise known as "The Code on Sanitation of the Philippines," provides for the sanitary requirements in the operation of slaughterhouses, markets and food establishments;

WHEREAS, Section 6 Rule 6.5.a.a of the amended RA No 9296, otherwise known as "The Meat Inspection Code of the Philippines," requires the National Meat Inspection Service (NMIS) to prescribe the procedures on the proper handling of meat and meat products during transport and distribution;

WHEREAS, Sections 4.16 and 56 of RA No 10536, an Act amending RA No 9296, redefines hot meat and provides fines and penalties to persons in conflict with the law;

WHEREAS, Section 16c of RA No 10611, otherwise known as the "Food Safety Act," assigned the responsibility of meat safety regulation to NMIS;

WHEREAS, advances in meat technology has increased meat yield from carcass through the mechanical separation of meat from flesh bearing bones which results in a product called Mechanically Separated Meat (MSM).

WHEREAS, MSM is exposed to microbiological and chemical risks associated with the contamination of raw materials and with poor hygienic practices during production handling and use. The application of high pressure for the production of some types of MSM also increases the risk from microbiological hazards.

52 **NOW, THEREFORE, I, PROCESO J ALCALA**, Secretary of the Department of Agriculture and
53 Chairperson of the NMIS Meat Inspection Board (MIB), by virtue of the powers vested in me by
54 law, do hereby issue this Circular prescribing the procedures for the hygienic handling and use
55 of MSM as raw material in the processing of meat products.

56
57 Section 1
58 **OBJECTIVES**

- 59
60 1.1 This Circular aims to prescribe the proper hygienic handling practices and use of MSM
61 as raw material for heat-treated meat products, to ensure food safety and quality.
62
63 1.2 This shall serve as guide for Local Government Units (LGUs), Accredited Meat Importers,
64 Accredited Meat Processors Meat Handlers and Food Business Operators involved in the
65 Meat Supply Chain using MSM.
66

67 Section 2
68 **SCOPE**

- 69
70 2.1 This Circular covers the composition, hygienic handling practices and use of MSM from
71 pork, poultry and turkey as raw materials for production of meat products or structured
72 meats, both locally produced and imported.
73

74 Section 3
75 **DEFINITION OF TERMS**

- 76
77 3.1 **Accredited Meat Importer** refers to a person accredited by DA-NMIS as eligible to import
78 meat and / meat products for its own use, processing, wholesale and/or retail distribution.
79
80 3.2 **"Best Before" Date (or Date of Minimum Durability)** means the date which signifies the
81 end of the period under any stated storage conditions during which the product will remain
82 fully marketable and will retain any specific qualities for which tacit or express claims have
83 been made. However, beyond the date the food may still be perfectly satisfactory. Best before
84 date is determined by manufacturers based on the wholesomeness (quality parameters) of the
85 product.
86
87 3.3 **Certificate of Analysis/Quality** refers to a declaration of fitness for use and compliance to
88 specified requirements signed by an authority of supplying entity.
89
90 3.4 **Commercial Sterility** means the destruction of all viable microorganisms of public health
91 significance as well as those capable of reproducing under normal non-refrigerated conditions
92 of storage and distribution.
93
94 3.5 **Comminuted Meat** means meat that is reduced in size by methods including chopping,
95 flaking, grinding, or mincing.
96
97 3.6 **Competent Authority** means the official authority charged by the government with the
98 control of meat hygiene and meat inspection, including setting and enforcing regulatory meat
99 hygiene requirements.
100
101 3.7 **Food Business Operator** refers to a person engaged in the food business including one's
102 agents and is responsible for ensuring that the requirements of the Food Safety Act are met by
103 the food business under one's control.

104
105 3.8 **International Veterinary Certificate (IVC)** refers to the certificate issued by the National
106 Veterinary Authority (NVA) at the country of origin attesting that, among others, the shipment
107 conforms to the specific veterinary/SPS requirements of the Philippines as prescribed in the
108 SPS Import Clearance issued by the Bureau of Animal Industry prior to shipment.

109
110 3.9 **Labelling** includes any written, printed or graphic matter that is present on the label,
111 accompanies the food, is displayed near the food, including that for the purpose of promoting its
112 sale or disposal.

113
114 3.10 **Meat** refers to the fresh, chilled or frozen edible carcass including offal derived from food
115 animals.

116
117 3.11 **Meat Cold Storage Warehouse** refers to a meat establishment that is accredited by the
118 Department of Agriculture Cold Storage Warehouse Composite Team as endorsed by the
119 Competent Authority, which is being used for the storage of local and/or imported frozen meat.

120
121 3.12 **Meat Establishment** refers to premises such as slaughterhouses, poultry dressing plants,
122 meat cutting plants, meat processing plants and cold storage warehouses and other meat outlets
123 that are approved and registered by the NMIS in which food animals or meat products are
124 slaughtered prepared, processed, handled, packed or stored.

125
126 3.13 **Meat Product** refers to any product capable of use as human food which is made wholly or
127 in part from any meat or other portion of the carcass of any food animals, excepting products
128 which contain meat or other portions of such carcasses only in a relatively small portion or
129 historically have not been considered by consumers as products of the meat industry, and which
130 are exempted from definition as a meat product by the Secretary under such conditions as he
131 may prescribe to assure that the meat or other portions of such carcasses contained in such
132 product are not adulterated and that such products are not represented as meat products.

133
134 3.14 **Mechanically Separated Meat (MSM)** refers to the product obtained by removing meat
135 from flesh-bearing bones after boning or from poultry carcasses, using mechanical means
136 resulting in the loss or modification of the muscle fiber structure. It may also be referred as
137 Mechanically Deboned Meat (MDM) or Mechanically Recovered Meat (MRM).

138
139 3.15 **Pasteurization** is a process involving the application of heat to temperatures of up to
140 100°C, mostly in the temperature range of 60 to 85°C. Pasteurized products still contain a
141 certain amount of viable ("living") microorganisms. Their growth in the stored product can only
142 be prevented by low temperatures. Products must therefore be kept under refrigeration (0°-
143 5°C).

144
145 3.16 **Processed Meat** refers to the processed or partially processed meat product intended for
146 human consumption that is obtained from any action that substantially alters initial raw
147 materials or products or ingredients. It may or may not be prepackaged.

148
149 3.17 **Sanitary and Phytosanitary Measures (SPS)** refers to measures applied (a) to protect
150 human or animal life from risk arising from additives, contaminants, toxins, or disease-causing
151 organisms in their food (b) to protect human life from plant or animal carried diseases; (c) to
152 protect animal or plant life from pests diseases, or disease-causing organisms; (d) to prevent or
153 limit other damage to a country from the entry establishment or spread of pests; and (e) to
154 protect the health of fish and wild fauna, as well as forests and wild flora.

3.18 **SPS Import Clearance** refers to the document issued by the Department of Agriculture through the Bureau of Animal Industry (BAI) prior to importation indicating that based on readily available information: (a) the source/s of meat and/or meat products are free from relevant diseases/contaminations; and (b) the accreditations of both the importer and the Foreign Meat Establishment (FME) (exporter) are in good standing. It also prescribes the conditions and risk management measures necessary in the conduct of importation that are to be observed by the importer, exporter, and the NVA at the country of origin.

Section 4

SPECIES, SOURCE COUNTRY AND CERTIFICATION

4.1 Species

4.1.1 Only MSM from pork, poultry and turkey certified as fit for human consumption by the Competent Authority of the source country accredited by the Philippine government shall be allowed for use in the processing of meat products.

4.2 Source

4.2.1 MSM shall be sourced from local and foreign meat establishments accredited by the Department of Agriculture. For foreign meat establishments, the issuance of the SPS Import Clearance shall be based on the SPS measures or conditions specified under DA Administrative No. 9 Series of 2013 and other rules and regulations on importation.

4.3 Certification

The following certification shall accompany every shipment as required by the Competent Authority:

4.3.1 International Veterinary Certificate (IVC) from Country of Origin indicating species declaration;

4.3.2 Certificate of Analysis indicating size of bone particles and calcium content.

Section 5

SAFETY AND QUALITY REQUIREMENTS

5.1 General requirements

5.1.1 MSM shall be of one species, edible, with characteristic organoleptic/ sensory properties of the specified meat, free from off-odors and off-flavors e.g., rancid, free from foreign matters and compliant with the safety and quality requirements of this section.

5.1.2 The frequency of testing for conformance with the requirements of this section shall be based on risk and the historical record of compliance of the product.

5.2 Sensory Properties

5.2.1 Free from objectionable colors, odors and flavors indicative of decomposition and rancidity.

208 5.3 **Proximate Analysis**

209
210 5.3.1 Protein content shall not be less than 14 percent.

211
212 5.3.2 Fat content shall not be more than 30 percent.

213
214 The above parameters shall be used as basis for establishing product identity whenever
215 there is a reason to suspect fraudulent practices.

216
217 5.4 **Physical Analysis**

218
219 5.4.1 Bone Particles – At least 98 percent of the bone particles present in the product
220 shall have a maximum size no greater than 0.5 mm at its greatest dimension and there
221 shall be no bone particles larger than 0.85 mm at its greatest dimension.

222
223 5.4.2 Filth – It must be free from the presence of any extraneous matter (e.g. insect
224 fragments, hair, metal and wood chips etc.) that has not been derived from meat that
225 poses a threat to human health, and that can be recognized with or without the aid of
226 magnification.

227
228 5.5 **Calcium Analysis**

229
230 5.5.1 Calcium content shall not be more than 1.5 percent dry basis.

231
232 5.6 **Microbiological Criteria**

233
234 5.6.1 The microbiological criteria for MSM shall be as follows:

Criteria	n	c	m	M
Aerobic Plate Count (APC) (CFU/g)	5	2	5x10 ⁵	5x10 ⁶
<i>Escherichia coli</i> (CFU/g)	5	2	50	500
<i>Salmonella</i> spp.	5	0	Absent in 10 grams	

235 *n* –number of units comprising the sample

236 *c* –number of sample units giving values between *m* and *M*

237 *m* –the acceptable level of microorganisms determined by a specified method; the values are generally
238 based on levels that are achievable under GMP

239 *M* –the level which when exceeded in one or more samples would cause the lot to be rejected as this
240 indicated potential hazard or imminent spoilage

241
242 5.6.2 The above parameters shall be used as basis for verifying compliance to Good
243 Manufacturing Practice and the implementation of an appropriate Hazard Analysis and
244 Critical Control Point in the production of MSM at the source establishment.

245
246 5.6.3 A batch or lot with unsatisfactory results with respect to the above criteria shall be
247 the basis for the increased frequency of sampling imposed by NMIS.

248
249 5.6.4 Microbiological results shall also be used in the evaluation of the future requests
250 for SPS Import Clearance for MSM from the same source.

Section 6
PACKAGING AND LABELLING OF MSM

6.1 **Packaging and labelling**

6.1.1 MSM shall be packaged in a food grade material, in a manner that shall ensure the quality, integrity, safety and traceability of the product.

6.1.2 The package must be properly labelled to include the following information:

6.1.2.1 Name and species (e.g MS poultry, MS turkey, MS pork)

6.1.2.2 Net quantity in kilograms or tons for bulk packaging of MSM

6.1.2.3 Name and address of the company and country of origin and establishment number

6.1.2.4 Lot identification code

6.1.2.5 Safe handling instructions including product temperature requirements

6.1.2.6 Inspection stamp/sticker/seal of the exporting country/ reflecting the Foreign Meat Inspection Certificate Number

6.1.2.7 Manufacturing Date / Production Date

6.1.2.8 "Best Before Date" or Date of Minimum Durability which shall not be more than one year from production date.

Section 7
SAMPLING AND MONITORING OF MSM

7.1 The NMIS shall collect MSM samples as per announcement or upon due notice based on prescribed official sampling plan.

Section 8
TRANSPORT, STORAGE, HANDLING AND USE OF OF MSM

8.1 **Transport**

8.1.1 MSM shall be withdrawn from accredited Cold Storage Warehouse and delivered to another accredited meat establishment under prescribed storage temperature and covered by Certificate of Meat Inspection issued by a duly authorized Meat Inspector.

8.1.2 All MSM for transport shall conform to the following:

8.1.2.1 MSM shall be transported in their original packaging placed in an accredited refrigerated meat transport vehicle and/or insulated container that are able to effectively maintain the intended product temperature. Equipment for continuous monitoring and recording of temperature shall accompany transport vehicles and bulk container wherever appropriate.

306 8.1.2.2 MSM shall be transported in an accredited refrigerated meat transport
307 vehicle that shall always be kept clean and regularly disinfected. The vehicle
308 must not have been used for transporting live animals or any other cargo which
309 may adversely affect the safety and quality of the MSM.

310
311 8.1.2.3 If loaded and unloaded manually, MSM shall be properly protected from
312 contamination by meat handlers.

313
314 8.1.2.4 Transport vehicle shall not carry any other materials that can be a source
315 of contamination.

316
317 8.1.2.5 MSM shall be transported in a manner that will not result to thawing.

318
319 8.1.2.6 If MSM is inadvertently exposed to adverse temperature conditions or
320 sources of contamination that may affect safety and suitability, a re-inspection
321 shall be carried out by a Meat Inspector (NMIS/LGU) before further transport to
322 final destination is allowed.

323 324 **8.2 Storage, Handling and Use**

325
326 The following rules and regulations shall be observed in the storage, handling and use of MSM:

327
328 8.2.1 MSM shall be used only by accredited meat processors in the manufacture of heat
329 treated products.

330
331 8.2.2 MSM shall be used for further processing in frozen form. Frozen MSM shall be
332 disintegrated with a meat flaker immediately before use. In case no meat flaker is
333 available, frozen MSM shall be thawed at no more than 4°C and processed immediately.
334 Thawed MSM shall not be refrozen.

335
336 8.2.3 MSM shall be maintained frozen at an internal temperature of not more than -18°C
337 during storage and transport. *There shall be no indication of thawing.*

338
339 8.2.4 MSM shall be utilized based on its best before date, following the prescribed safe
340 handling instructions including temperature requirements.

341
342 8.2.5 MSM shall be used only in meat products that are further heat processed such as
343 cooked emulsified meats or pasteurized or canned meat products. Canned products
344 shall be processed to achieve "commercial sterility".

345
346 8.2.6 Importation of MSM shall be limited to Accredited Meat Importers with facilities
347 that can ensure proper and hygienic handling subject to importation guidelines to be
348 issued by the Secretary in a separate Circular They shall:

349
350 8.2.6.1 Secure SPS Import Clearance.

351
352 8.2.6.2 Ensure that arrival of imported MSM shall not be more than six months
353 from the production date and the product must be used within one year from the
354 same date.

355
356 8.2.6.3 Ensure traceability by keeping appropriate records..

358 8.2.6.4 Comply with the requirements provided by this Circular and other
359 issuances relative to MSM.

360
361 8.2.6.5 Ensure that meat handlers are properly informed about the
362 requirements for storage, hygienic handling and use of MSM.

363
364 Section 9

365 **DECLARATION OF MSM IN THE PROCESSING OF MEAT PRODUCT**

366
367 9.1 Labelling requirements for finished products with MSM as ingredient shall be guided by
368 DA AO 24 Series of 2010 Section 4 specifying MSM as one of the ingredients indicating species
369 source (e.g.MSpork, MSpoultry, MSturkey).

370
371 Section 10

372 **PENALTY PROVISION**

373
374 All persons or corporations, found guilty of directly or indirectly violating any provisions of this
375 Circular in addition to penalties and sanctions prescribed under RA 10536, An Act amending
376 Republic Act 9296, otherwise known as the "Meat Inspection Code of the Philippines" shall also
377 be charged for violation of the Consumer Act of the Philippines and other related laws, rules and
378 regulations.

379
380 Section 11

381 **SEPARABILITY CLAUSE**

382
383 In the event one or more of such provisions are held unconstitutional, the validity of other
384 provisions shall not be affected thereby.

385
386 Section 12

387 **REPEALING CLAUSE**

388
389 The provisions of existing Implementing Rules and Regulations, Memorandum Circulars, and
390 other issuances that are inconsistent with the provisions of this Circular are hereby modified,
391 revoked or repealed accordingly.

392
393 Section 13

394 **EFFECTIVITY**

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396 This Circular shall take effect fifteen (15) days after its publication in a newspaper of national
397 circulation or in the Official Gazette and submission of copy to the National Administrative
398 Registrar (NAR) at the UP Law Center, Diliman Quezon City.

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402
403 **PROCESO J ALCALA**
404 Secretary