



GMP⁺ Certification Scheme Animal Feed Sector 2006

Minimum Requirements for Road Transport

Appendix 14

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1. INTRODUCTION

Requirements are set in various GMP⁺ standards for the transportation of feeds. The aim of these standards is to control the risks of cross-contamination of animal feeds. Loading sequence and cleaning and disinfection are major control measures for preventing cross-contamination. This appendix sets further requirements for this cleaning, disinfection and loading sequence in the road transport of animal feeds.

The control measures with respect to transport sequence, cleaning and disinfection are the result of a generic risk assessment for the transport of animal feeds. These control measures are an implementation of the HACCP principles for the transportation of animal feeds.

2. MINIMUM REQUIREMENTS

2.1 Loading sequence

Prior to the acceptance of a transport commission, the participant should determine the loading category of the new cargo. The loading categories of the previous loads should also be determined before loading.

Four main categories of prior loads are distinguished in annex A:

LR1. Very high-risk materials

LR2. Microbiologically contaminated material

LR3. Materials constituting a physical and/or chemical risk

LR4. Neutral materials

A cleaning and disinfection regime has been established for each loading category. Annex A contains the instructions relating to loading sequence and the cleaning and disinfection regimes. The participant in GMP⁺ B4.1 should follow these instructions for loading sequence, cleaning and disinfection.

Use should be made for the classification of products into loading categories of the categories in the Road Transport Loads Database. Annex B is a shortened version of the database. The participant uses the categories to determine the loading category for a product. This is done initially on the basis of the specific name of a product (generic name, not the brand name) or on the basis of the name of a product group. Products which do not appear in one of the loading categories LR2, LR3 or LR4 in Annex B are prohibited as loads for means of transport in which animal feeds are also carried.

The following basic principles apply:

- Before every animal feed transport there must be a visual check that the loading compartment is clean which means that it is completely empty and free of remains and odours from previous load and is dry.
- Loads in category LR1 are prohibited for vehicles which transport animal feeds. The carrier must be able to show that in the past no prohibited loads from loading category LR1 were transported.
- After the transportation of products in loading category LR2 there should always be cleaning and disinfection before the first load of animal feeds.

- After the transportation of products in loading category LR3 there should always be wet cleaning before the first transport of animal feeds
- After a prohibited load animal feeds may no longer be transported. Only after a release of the means of transport by an independent loading compartment inspector may animal feeds be transported again in the loading compartment in question (see the procedure in Annex E).
- Companies carrying out this transportation using bulk tankers should wet clean these tankers at least once per quarter unless it can be demonstrated that there are no remains present in the bulk tanker.

The list of loads classified into loading categories may change over time. Annex C includes a procedure for the categorisation of products that have not yet been (sufficiently) assessed and for the revision of categorisation of products. Annex D contains a supplementary procedure for residue sampling and determination in loading compartments with respect to an application for load classification.

Annex E sets out a procedure for the acceptance of loading areas after the transportation of prohibited loads.

2.2 Cleaning and disinfection regime

Four basic principles can be distinguished with respect to cleaning and disinfection. The minimum necessary cleaning regime is established on the basis of the product into a loading category. If the loading compartment is not clean after the cleaning in question then additional cleaning should take place (see Annex A).

The four basic principles for cleaning are:

- A. Dry cleaning
- B. Cleaning with water
- C. Cleaning with water and a cleansing agent
- D. Disinfection immediately or after one of the previous cleaning regimes (A,B or C).

Re. A). Cleaning regime A (dry cleaning)

Application:

In the case of transport of dry 'neutral' substances only, dry cleaning may be sufficient and beneficial both practically and microbiologically.

The general cleaning regime is as follows:

- a. clean the means of transport by extraction, blowing out or sweeping
- b. manual cleaning of places which are difficult to reach
- c. if there are still remains after dry cleaning then use additional wet cleaning.

EXPLANATION:

In dry cleaning the preference is for suction because there is then no spreading of dust or dirt.

Re. B) Cleaning regime B (cleaning with water)

Application:

Cleaning with water is necessary after transport of, for instance, damp or sticky substances or possibly harmful chemicals.

The general cleaning regime is as follows:

remove residue from the previous load as much and as dry as possible

- a. pre-rinse with cold water, or warm if necessary, and difficult places.
- b. manual cleaning
- c. high-pressure cleaning with water
- d. dry through ventilation or hot air dryer.

EXPLANATION:

With open vehicles it is best to use a high-pressure cleaner with a flat nozzle with at least 25 bar pressure or higher. If chemicals need to be removed, (e.g. chemical fertilisers) warm water should be used at a temperature of at least 60°C, to dissolve the chemicals more easily. Places that are difficult to reach should if necessary be cleaned separately with additional means such as brushes. It is important that the water can be drained

Re. C) Cleaning regime C (Cleaning with water and cleansing agent)

Application:

In case of load containing protein or grease, it is necessary to use a cleansing agent.

The general cleaning regime is as follows:

- a. remove residue from the previous load as much and as dry as possible
- b. pre-rinse with hot water (max. 60 °C) and clean difficult places by hand.
- c. foam or gel with a cleaning agent for tippers open wagons or flush
with CIP cleaning agent at 80 °C in the event of tank cleaning
- d. rinse with water at approx. 60°C
- e. if necessary dry through ventilation or hot air dryer.

EXPLANATION:

A raised water temperature is required to remove fats more easily. This may however not be higher than 60 degrees Celsius to prevent the protein from coagulating and thereby sticking to surfaces. To facilitate the removal of protein and greases it is advisable to use a medium to strong alkaline cleansing agent, using the dosage prescribed by the manufacturer. In open systems it is best to use a foaming degreasing agent. In the case of tank cleaning with spray balls, no foaming agents may be used. It is then better to use a so-called Cleaning in Place (CIP) agent at a high temperature. In specific cases, such as the removal of calcareous substances, an acid cleansing agent is preferable.

Re. D). Cleaning regime D (Cleaning with water and cleansing agent and disinfection)

Application:

Disinfection is only necessary if preceding loads are microbiologically unacceptable (detectable signs of decay), or if it is known that they carry micro-organisms that cause disease, such as Salmonella.

The general cleaning regime is as follows:

- a. cleaning in accordance with cleaning regime A, B or C
- b. disinfection with a legally-permitted disinfectant (approved for the foodstuff industry) at a dosage indicated in the instructions for use.
- c. **If necessary** wet rinsing
- d. if necessary dry through ventilation or hot air dryer.

EXPLANATION:

Another form of disinfection (e.g. dry) may only be applied if its effectiveness has been established.

A distinction can be made between disinfectants tested for bactericidal and fungicidal effect and those tested for bactericidal, fungicidal and virucidal effect. The latter may only be used in the livestock sector. For animal feed transport vehicles, use of a disinfectant approved for the food industry is the only other alternative.

Use of a combined cleansing and disinfecting agent containing active chlorine is only possible on smooth surfaces that are easy to clean, such as stainless steel.

In all other cases it is better to clean first and then disinfect, in which case, for the disinfection of open vehicles disinfectants containing active chlorine are advised. In some cases it is not advisable to use an agent containing chlorine, such as for materials which corrode easily or after an acid cleansing due to the forming of toxic chlorine gases. In this case quaternary ammonium compounds may be used, except for tank cleaning with spray balls due to foam forming. Their advantage is that they adhere better and therefore work longer. The disadvantage is that they are more difficult to remove.

For closed tankers, the use of acetic acid can be considered. Its advantage is that it is activated less by residues than active chlorine is. The penetrating odour and the harm it does to rubber are a disadvantage. Disinfectants must be given at least five minutes to take effect.

The food industry prescribes rinsing after disinfecting. In order to avoid the risk of residues, it is advisable to apply this to transport vehicles as well, unless it can be demonstrated that residues do not constitute a risk. In some cases, removing the disinfectant can lead to the development of surviving bacteria if the surface remains wet for too long.

After cleaning loads containing animal proteins, a check may be carried out for residues of components of animal origin in animal feeds according to the microscopic screening methods laid down in Directive 98/88/EG.

Other additional checks will be carried out to assess the effectiveness of the cleaning and/or disinfection method used. In order to assess the cleaning, ATP (Adenosine Tri Phosphate) measurements can be used. ATP is present in all animal and vegetable cells and can thus be used as an indicator for the extent of biological contamination left on surfaces. The ATP measurement itself is very easy and can yield a result within minutes. The application of ATP is not useful in most cases of transport of chemicals. In order to verify the effectiveness of a particular disinfection technique in use, agar stamps can be used, which can determine the numbers of surviving micro-organisms. This technique takes a day to produce results, which means that any necessary adjustments to the disinfection process can only be made afterwards. This technique provides results only after a period of one day so that any required modification of the disinfection process can only take place later.

More advanced methods may be used for checking on chemical residues and pesticides such as HPLC and Mass Spectrometry (MS).

ANNEX A: INSTRUCTIONS FOR TRANSPORT SEQUENCE, CLEANING AND DISINFECTION

Instructions for transport sequence, cleaning and disinfection				
	Previous load		Following load	
Loading category	Description of the loading category	State of the bulk loading compartment	Animal feed products	Animal feed products for laying poultry
LR 1	Very high-risk materials (prohibited load)	n/a	Not allowed	
LR 1 (E)	(Products containing) processed animal proteins ^a	n/a	Not allowed Requirements for the release of transport means for the transport of animal feed are set in (EC) 999/2001 and by the competent authority.	
LR 2	Microbiologically contaminated materials (for example Salmonella) or perceivable signs of decay (for example abnormal odours)	After unloading	A+D	
		Residue after dry cleaning	B+D	
		(Odour) residue after cleaning with water	C+D	
LR 2 (Vdo)	Feed materials of animal origin (which do not belong to loading category 1(E))	Residue after dry cleaning	B+D R&O in accordance with applicable legislation (EC 1774/2002)	
		(Odeur)residue after cleaning with water	C+D R&O in accordance with applicable legislation (EC 1774/2002)	
LR 3	Material constituting a physical and/or chemical risk	after unloading	B	
		(Odour) residue after cleaning with water	C	
LR 4	Neutral material	after unloading	A	
		Residue after dry cleaning	B	
		(Odour) residue after cleaning with water	C	
LR 4 (E)	(Products containing) processed animal proteins ^a	after unloading	A	
		Residue after dry cleaning	B	
		(Odour) residue after cleaning with water	C	
LR 4 (T)	Compound feeds with nicarbazine and medicated feeds with sulpha-agents	after unloading	A	A ^b
		Residue after dry cleaning	B	B ^b
		Residue after cleaning with water	C	C ^b

LR: Loading category road transport

A. Dry cleaning

B. Cleaning with water

C. Cleaning with water and a cleansing agent

D. Disinfection after one of the previous cleaning regimes (A, B or C)

E: (Processed) animal proteins

Vdo: Feed materials of animal origin

T : Compound feeds with nicarbazine or sulphas

^a By processed animal proteins, the following is meant here: all processed animal proteins as defined in the Animal Byproducts Regulation (EU 1774/2002). It also includes products that contain these proteins, and compound feeds and premixes *not containing* these proteins in the ingredients, but originating from production lines *containing* these proteins. Exceptions to this are milk and products based on milk, colostrum, eggs and egg products and collagen. Definition of processed animal proteins: animal proteins that were derived fully from category 3 material and that were processed in accordance with Appendix V, Chapter II (EU 1774/2002) in order to make these suitable as direct feedstuffs or to be used otherwise in animal feed, including pet food, or in biological fertilizers or soil improvers.

^b The specified cleaning instructions only apply when the manufacturer can show that the end feed remains under the total carry-over norms (factory carry-over including the carry-over during transport). For the carry-over of nicarbazine/sulpha's during transport 0.03% may be assumed if use is made of a bulk tanker where the compartments are pressurised during unloading. If a company is unable to show that the end feed remains under the total carry-over norms then a very penetrating and strict cleaning procedure should be used. It must be demonstrated with very clear documentation in what manner the carry-over is controlled (for example by way of flush batches).

The loading classification applies as specified in the Road Transport Loads Database. The following list in Annex B is a shortened version of this and the loading classification from the database always takes precedence.

ANNEX B: LOADING CATEGORY CLASSIFICATION OF SUBSTANCES/MATERIALS

Loading category 1	
Animal products	
10021	Category 1 material, processed and unprocessed (in accordance with definition Reg. (EG) 1774/2002)
10022	Category 2 material, processed and unprocessed (in accordance with definition Reg. (EG) 1774/2002) ¹
10023	Unprocessed category 3 material (in accordance with definition Reg. (EG) 1774/2002)
Fertilisers	
10001	Animal manure
10002	Garden soil/compost treated with animal fertiliser
10003	Mushrooms substrate
Other (inorganic) substances/products	
10051	4,4'-(propan-2-ylidene)diphenol (DPP, Diphenylpropane, 4,4'-dihydroxy-2,2-diphenylpropane) (Cas-nr. 80-05-7)
10030	Active carbon (used)
10012	Asbestos or materials containing asbestos
10010	Asphalt (fresh) and asphalt rubble
10014	Blast furnace slag ((Furnace) slak) (CaO, SiO ₂ , MgO, Al ₂ O ₃) (Cas-nr. 65996-69-2)
10015	Fly ash (Coal oil gas, Coal dust fly ash, PKVA) (Cas-nr. 268-627-4)
10011	Gas oil
10048	Lubricant
10048	Lubricant
10048	Lubricant
10009	Metal flakes and turnings (not degreased, washed and dried)
10008	Mineral clay that has been used for detoxification
10004	Mineral-oil (including quakerol)
10007	Petroleumkoks (Wet and dry petroleumcokes, Green cokes) (Cas-nr. 64741-79-3, 64743-05-1)
10005	Radioactive material
10049	Styrene (vinyl benzene) (Cas-nr. 100-42-5)
10049	Styrene (vinyl benzene) (Cas-nr. 100-42-5)
10013	Toxic oxidative materials
Other (organic) substances/products	
10020	Domestic waste and all derived fractions in as far they are not sanitised.
10019	Ftalaateter (Ester van ftaalzuur en diverse alcoholen.) (Cas-nr. 68515-49-1)
10017	Sewage sludge
10016	Unpacked seeds, treated mit toxic substances
10018	Untreated food residue (Swill)

Loading category 1

(Products with) processed animal proteins
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10038 Biological fertilisers which contain other processed proteins than fishmeal ²
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Loading category 1 (E)**(Products with) processed animal proteins**

10038	²
10038	²
10041	Animal feed with prohibited processed animal proteins for productive livestock ²
10041	Animal feed with prohibited processed animal proteins for productive livestock ²
10042	Animal feeds with blood products from not-ruminants ³
10042	Animal feeds with blood products from not-ruminants ³
10043	Animal feeds with fish meal, dicalcium phosphate and tricalcium phosphate (of animal origin). ³
10043	Animal feeds with fish meal, dicalcium phosphate and tricalcium phosphate (of animal origin). ³
10037	Biological fertilisers which contain other processed proteins than fishmeal ²
10037	Biological fertilisers which contain other processed proteins than fishmeal ²
10039	Biological soil improvers, which contain other processed proteins than fishmeal ²
10039	Biological soil improvers, which contain other processed proteins than fishmeal ²
10037	Bloodproducts and bloodmeal from non-ruminants ²
10037	Bloodproducts and bloodmeal from non-ruminants ²
10040	Dicalcium phosphate (of animal origin) ²
10040	Dicalcium phosphate (of animal origin) ²
10047	Fish feeds which contain blood meal. ⁴
10047	Fish feeds which contain blood meal. ⁴
10046	Fish meal ⁵
10046	Fish meal ⁵
10045	Processed animal proteins which are prohibited for productive livestock. ²
10045	Processed animal proteins which are prohibited for productive livestock. ²
10044	Tricalciumphosphate (of animal origin) ²
10044	Tricalciumphosphate (of animal origin) ²

Loading category 2	
Animal products	
20040	Mussel
Fertilisers	
20039	Fertiliser grains (organic), pathogen-free, from an approved agency Reg. (EG) nr. 1774/2002.
20031	Fertilizer grains and granulate
20042	Mushroom substrate, demonstrably from a certified processing company (Reg. (EC) no. 1774/2002)
20034	Sanitised (bulk) fertilizer products (pathogen-free) ⁶
Other (organic) substances/products	
20043	Fatty acid from animal origin for cosmetic industry (Cas-nr. 67701-06-8)
Animal feeds	
20041	Feed materials of animal origin (process animal by-products which do not belong to loading category 1(E)) ⁷
(Products with) processed animal proteins	
20038	Animal and marine oils and fats (non food/non feed) (Cas-nr. 92113-40-1)
Onbekend	
20032	Compost from domestic vegetables, fruit and garden waste. ⁸
20036	Glass intended for recycling
20037	Materials contaminated with salmonella or other pathogens.
20033	Materials with perceivable signs of decay

Loading category 3**Fertilisers**

- 30041 Champost
30043 Fertilizer grains (organic), without animal components

Other (inorganic) substances/products

- 30225 Active carbon (fresh) (Norit)
30062 Aluminium iron (III) sulphate (AVR, Aluminium ferrisulfate) ($\text{AlFe}(\text{SO}_4)_3$) (Cas-nr. 10028-22-5)
30063 Aluminium oxide (Al_2O_3) (Cas-nr. 1344-28-1)
30057 Aluminium sulphate ($\text{Al}_2(\text{SO}_4)_3$) (Cas-nr. 10043-01-3)
30064 Aluminiumhydroxide powder ($\text{Al}(\text{OH})_3$) (Cas-nr. 21645-51-2)
30065 Ammonium hydroxide (Ammonia, Ammonia solution) (NH_4OH) (Cas-nr. 1336-21-6)⁹
30061 Ammonium polyphosphate (APP) (Cas-nr. 68333-79-9, 10124-31-9)⁹
30059 Ball clay (China clay, Fire clay, Kaoline) ($\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4$)
30058 Barium sulphate (Barite) (BaSO_4) (Cas-nr. 7727-43-7)
30222 Batteries, used (Cas-nr. –)
30081 Bauxite, calcinated (powder) (Al, O en H ($\text{Al}_2\text{O}_3 \cdot n\text{H}_2\text{O}$))
30067 Bentonite (Cas-nr. 1302-78-9)
30120 Berwilit
30231 Blasting grit (new and unused)
30231 Blasting grit (new and unused)
30231 Blasting grit (new and unused)
30074 Bleached earth
30234 Borax Pentahydrate (Cas-nr. 12179-04-3)
30073 Boric acid (Borium trihydroxide, Orthoboric acid) ($\text{H}_2\text{BO}_3 \cdot 3\text{H}_2\text{O}$, BH_3O_3) (Cas-nr. 10043-35-3)⁹
30066 Calcium chloride solution (CaCl_2) (Cas-nr. 10043-52-4)⁹
30072 Calcium hydroxide (Slaked lime, Air lime, Hydrated lime powder) ($\text{Ca}(\text{OH})_2$) (Cas-nr. 1305-62-0)⁹
30096 Calcium oxide (Unslaked lime) (CaO) (Cas-nr. 1305-78-8)
30111 Calciumfluorid (Fluorspar, Fluorite) (CaF_2) (Cas-nr. 7789-75-5)
30068 Chromite (Ferro-chrome) (FeCr) (Cas-nr. 11114-46-8)
30071 Chromite (Iron chromium oxide) (FeCr_2O_4) (Cas-nr. 1308-31-2)
30075 Construction and demolition waste
30092 Copper oxide (CuO) (Cas-nr. 1317-39-1)
30101 Debris glass
30070 Diatomaceous earth (Kiesel guhr, Silicic acid) (Cas-nr. 68855-54-9)
30087 Engine cast iron, degreased, cleaned washed and dried
30241 Ethylene Diglycol Monoethyl Ether (2-(2-ethoxyethoxy)ethanol, EDGE, Diethylene glycol monoethyl ether) (Cas-nr. 111-90-0)
30069 Ferro-manganese (FeMn) (Cas-nr. 12604-53-4)
30083 Ferro-silicon (FeSi_2) (Cas-nr. 8049-17-0)
30077 Ferrous (II) sulphate (Heptahydrate crystals, Ferro-sulphate heptahydrate) ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$) (Cas-nr. 7720-78-7)
30078 Ferrous carbonate (Siderite, Iron ore, FER-C) (FeCO_3) (Cas-nr. 563-71-3)

Loading category 3

30076	Ferrous oxide (Iron oxide) (FeO) (Cas-nr. 1345-25-1)
30233	Flakes Sulphur
30233	Flakes Sulphur
30086	Kaoline (Cas-nr. 1332-58-7)
30112	Lava (Si, Fe, Mg)
30236	Lithium carbonate (Cas-nr. 554-13-2)
30095	Magnesium chloride solution (Magnogene) (MgCl ₂) (Cas-nr. 7786-30-3) ⁹
30090	Mangan dioxide (MnO ₂) (Cas-nr. 1313-13-9)
30224	Melamine (1,3,5-triazine-2,4,6-triamine) (C ₃ N ₆ H ₆) (Cas-nr. 108-78-1)
30089	Metal flakes and turnings which are degreased, washed and dried with particles less than 10 mm
30099	Nitric acid (HNO ₃) (Cas-nr. 7697-37-2) ⁹
30117	Pentapotassium tripolyphosphate (K ₅ P ₃ O ₁₀) (Cas-nr. 13845-36-8) ⁹
30082	Phosphoric acid (Orthophosphoric acid) (H ₃ PO ₄) (Cas-nr. 7664-38-2) ⁹
30085	Phosphoric acid plaster (Phosphogypse) (CaSO _{4,2} H ₂ O)
30237	Polyethylene glycol (liquid) (PEG) (Cas-nr. 25322-68-3)
30242	Polyisobutene (PIB)
30238	Polyvinyl alcohol (PVOH, PVA, PVAL) (Cas-nr. 9002-89-5)
30228	Polyvinyl Chloride (PVC in powder form) (PVC)
30084	Potassium carbonate (Potash) (K ₂ CO ₃) (Cas-nr. 584-08-7)
30093	Potassium hydroxide (Potassium hydroxide solution, Potassium hydroxide) (KOH) (Cas-nr. 1310-58-3) ⁹
30219	Powdered glass from glass panes (Cas-nr. -)
30220	Powdered glass from jars/bottles (Cas-nr. -)
30221	Powdered porcelain (Cas-nr. -)
30214	Propane acid (Propanoic acid) (Cas-nr. 79-09-4)
30100	Quartz powder (Silicium dioxide) (SiO ₂) (Cas-nr. 7631-86-9)
30079	Recycled glass
30232	Recycling granulate from construction- and demolition waste
30114	Road salt (Natrium-Aluminiumsilikat, De-icing salt) (NaCl) (Cas-nr. 7647-14-5)
30122	Salt (Sodium chloride) (NaCl) (Cas-nr. 7647-14-5)
30119	Sand cement
30239	Serox
30098	Shredder ⁹
30088	Silicium dioxide (Microsilica, Christoballite, Tridymite) (SiO ₂) (Cas-nr. 7631-86-9) ⁹
30097	Silico manganese (SiMn)
30107	Soda (Na ₂ CO ₃) (Cas-nr. 497-19-8)
30104	Sodium bicarbonate (Sodium hydrogen carbonate) (NaHCO ₃) (Cas-nr. 144-55-8)
30102	Sodium hydroxide (Sodium hydroxide solution, Caustic soda) (NaOH) (Cas-nr. 1310-73-2) ⁹
30105	Sodium perborate-Tetrahydrate (Bleach) (NaBO _{3,4} H ₂ O) (Cas-nr. 10486-00-7) ⁹
30103	Sodium tetraborate (Bore sodium oxide, Borax glass, Dinatrium tetraborate anhydride) (Na ₂ B ₄ O ₇) (Cas-nr. 1330-43-4)
30110	Spodumene (Lithium aluminium silikate) (LiAlSi ₂ O ₆)
30115	Stone chippings
30121	Sulphuric acid (H ₂ SO ₄) (Cas-nr. 7664-93-9) ⁹

Loading category 3

30230 Synthetic gypsum (Flue gas desulphurisation plaster)
30230 Synthetic gypsum (Flue gas desulphurisation plaster)
30230 Synthetic gypsum (Flue gas desulphurisation plaster)
30080 Tins (flattened) (Drink tins)
30106 Titan dioxide (Rutile, Titanium white) (TiO₂) (Cas-nr. 13463-67-7)
30226 Tripolyphosphate⁹
30229 Tyres
30229 Tyres
30109 Ureum ammonium nitrate solution (UAN)⁹
30223 Vaseline (Cas-nr. 8009-03-8)
30108 White spirit (Stoddard solvent) (Cas-nr. 8052-41-3)⁹
30113 Zeolite (Sodium aluminium silicate hydrate) ((Na₂O)(Al₂O₃)(SiO₂)₂) (Cas-nr. 1318-02-1)
30116 Zinc oxide (Waelz oxids, Chinese white) (ZnO) (Cas-nr. 1314-13-2)
30118 Zinc powder (Zinc dust) (Zn, ₂NO) (Cas-nr. 7440-66-6)

Other (organic) substances/products

30144 1,3-propylene glycol (Propane 1,3-diol, Trimethylene glycol) (Cas-nr. 504-63-2)⁹
30136 2-Ethyl hexanol-1-ol (2-ethyl hexyl alcohol) (C₈H₁₈O) (Cas-nr. 104-76-7)
30127 Acetic acid (CH₃COOH) (Cas-nr. 64-19-7)⁹
30130 Acetic acid anhydride (Ethane acid anhydride) (C₄H₆O₃) (Cas-nr. 108-24-7)⁹
30129 Acetone (Dimetyl ketone, Propane-2-on, DMK) (C₃H₆O) (Cas-nr. 67-64-1)⁹
30206 Acid oils and fatty acid distillates⁹
30131 Adipic acid (1,4-butane dicarbonxylic acid) (C₆H₁₀O₄) (Cas-nr. 124-04-9)⁹
30128 Antifreeze (Ethyene glycol, EG, Ethane-1,2-diol) (C₂H₆O₂) (Cas-nr. 107-21-1)
30196 Arachide acid (Icosane acid) (C₂₀H₃₂O₂, C₂₀H₄₀O₂) (Cas-nr. 506-30-9, 506-32-1)⁹
30175 Arachidic acid (Eicosanoic acid) (C₂₀H₄₀O₂) (Cas-nr. 506-30-9)⁹
30125 Bee wax (white and yellow), intended for technical purposes. (Cera flava, Cera alba) (Cas-nr. 8006-4-4, 8012-89-3)⁹
30195 Behene acid (Docosane acid) (C₂₂H₄₄O₂) (Cas-nr. 112-85-6)⁹
30123 Benzyl (C₁₄H₁₀O₂) (Cas-nr. 134-81-6)
30126 Benzyl alcohol (C₇H₈O) (Cas-nr. 100-51-6)⁹
30152 Butane diol (1,3 Buthylene glycol) (C₄H₁₀O₂) (Cas-nr. 107-88-0, 110-63-4, 513-85-9)⁹
30160 Butanon (Methyl ethylketone, MEK) (C₄H₈O) (Cas-nr. 78-93-3)⁹
30172 Buthyl alcohol (Butane-1-ol) (C₄H₁₀O) (Cas-nr. 71-36-3)⁹
30124 Butyl acetate (n-, sec- en ter-butylacetate) (C₆H₁₂O₂) (Cas-nr. 123-86-4, 105-46-4, 540-88-5)⁹
30142 Butylene glycol (1,2-butandiol, 1,2-dihydroxy butane) (C₄H₁₀O₂) (Cas-nr. 584-03-2)⁹
30173 Butyric acid (Butane acid, Ethyl acetic acid, Propane carboxylic acid) (C₄H₈O₂) (Cas-nr. 107-92-6)⁹
30141 Calcium lignosulphonate⁹
30132 Candelilla wax (Candelilla cera) (Cas-nr. 8006-44-8)⁹
30187 Caprin acid (n-decane acid) (C₁₀H₂₀O₂) (Cas-nr. 334-48-5)⁹
30190 Capron acid (n-Hexane acid) (C₆H₁₂O₂) (Cas-nr. 142-62-1)⁹
30188 Capryl acid (n-octane acid) (C₈H₁₆O₂) (Cas-nr. 124-07-2)⁹
30140 Carnauba wax (Hard leaf wax) (Cas-nr. 8015-86-9)⁹

Loading category 3

30176	Cetyl-stearyl alcohol (C16-C18 Alcohol, Cetostearyl, Lanette O) (C ₁₈ H ₃₈ O en C ₁₆ H ₃₄ O) (Cas-nr. 67762-27-0) ⁹
30213	Converter slag (Cas-nr. 91722-09-7)
30133	Cyclohexane (Hexamethylen, Hexanaphten, Hexahydrobenzol) (C ₆ H ₁₂) (Cas-nr. 110-82-7) ⁹
30181	Decyl alcohol (Decane-1 ol, Antak) (C ₁₀ H ₂₂ O) (Cas-nr. 112-301) ⁹
30163	Earth foam (Betacal, Carbokalk, Pressed foam earth)
30194	Eruca acid (Cis-docosane acid, Erucic acid) (C ₂₂ H ₄₂ O ₂) (Cas-nr. 112-86-7) ⁹
30135	Ethyl acetate (Acetidin) (C ₄ H ₈ O ₂) (Cas-nr. 141-78-6) ⁹
30209	Fatty acid esters ⁹
30227	Fatty acid esters ⁹
30240	Fatty acid not from animal origin for cosmetic industry (Cas-nr. 67701-02-4 / 61788-89-4 / 90990-15-1 + 67762-27-0)
30189	Heptane acid (C ₇ H ₁₄ O ₂) (Cas-nr. 111-14-8) ⁹
30166	Heptyl alcohol (Heptane-1-ol) (C ₇ H ₁₆ O) (Cas-nr. 110-70-6) ⁹
30180	Hexadecyl alcohol (Hexadecane-1-ol, Cetyl alcohol, Hexadecanol) (C ₁₆ H ₃₄ O) (Cas-nr. 36653-82-4) ⁹
30167	Hexyl alcohol (Hexane-1-ol, Amylcarbinol, Caproyl alcohol) (C ₆ H ₁₄ O) (Cas-nr. 111-27-3) ⁹
30147	Iso-buthyl acetate (2-Methylpropylacetate, Acetic acid isobutylester) (C ₆ H ₁₂ O ₂) (Cas-nr. 110-19-0) ⁹
30148	Isodecanol (Isodecyl alcohol) (C ₁₀ H ₂₂ O) (Cas-nr. 25339-17-7) ⁹
30159	Isoftaal acid (1,3-Benzene dicarboxylic acid, M(eta)-phtalic acid) (C ₈ H ₆ O ₄) (Cas-nr. 121-91-5)
30149	Isononanol (Isononyl alcohol, 7-methyloctanol, Isononol) (C ₉ H ₂₀ O) (Cas-nr. 27458-94-2) ⁹
30150	Isooctanol (Isothyl alcohol, Oxooctyl alcohol) (C ₈ H ₁₈ O) (Cas-nr. 26952-21-6) ⁹
30212	Latex (Vinamul 3231) ((CH ₃) ₃ SiO(Si(CH ₃) ₂ O)nSi(CH ₃) ₃) (Cas-nr. 9016-00-6)
30186	Laurine acid (n-dodecane acid) (C ₁₂ H ₂₄ O ₂) (Cas-nr. 143-07-7) ⁹
30185	Lauroline acid (Dodecene acid) (C ₁₂ H ₂₂ O ₂) (Cas-nr. 4998-71-4) ⁹
30178	Lauryl alcohol (Dodecyl alcohol, Dodecane-1-ol, Dodecanol) (C ₁₂ H ₂₆ O) (Cas-nr. 112-53-8) ⁹
30177	Lauryl-myristyl alcohol (C12-C14 alcohol, n-dodecanol-tetradecanol) (C ₁₂ H ₂₆ O en C ₁₄ H ₃₀ O) (Cas-nr. 67762-41-8) ⁹
30202	Linoleic acid (Octadecane 12 di-acid) (C ₁₈ H ₃₂ O ₂) (Cas-nr. 60-33-3) ⁹
30197	Linolene acid (Octadecane-9, 12,15-triene acid) (C ₁₈ H ₃₀ O ₂) (Cas-nr. 463-40-1) ⁹
30161	Methanol (Methyl alcohol) (CH ₄ O) (Cas-nr. 67-56-1) ⁹
30158	Methyl isobuthyl ketone (4-methyl pentane-2-on, MIBK) (C ₆ H ₁₂ O) (Cas-nr. 108-10-1) ⁹
30208	Methyl laurate (Methyl dodecanate) (C ₁₃ H ₂₆ O ₂) (Cas-nr. 111-82-0) ⁹
30207	Methyl oleate (Methyl octadecanate) (C ₁₉ H ₃₆ O ₂) (Cas-nr. 112-62-9) ⁹
30211	Methyl palmitate (Methyl hexadecanate) (C ₁₇ H ₃₄ O ₂) (Cas-nr. 112-39-0) ⁹
30203	Methyl stearate (Methyl octadecanate) (C ₁₉ H ₃₈ O ₂) (Cas-nr. 112-61-8) ⁹
30157	methyl-tert-buthyl ether (MTBF) (C ₅ H ₁₂ O) (Cas-nr. 1634-04-4) ⁹
30162	Montane wax (Cas-nr. 8002-53-7) ⁹
30183	Myristine acid (n-tetradecane acid, Myristic acid) (C ₁₄ H ₂₈ O ₂) (Cas-nr. 544-63-8) ⁹
30184	Myristoline acid (Tetradecene acid) (C ₁₄ H ₂₆ O ₂) (Cas-nr. 544-64-9) ⁹

Loading category 3	
30145	n-heptane (Dipropylmethane) (C ₇ H ₁₆) (Cas-nr. 142-82-5) ⁹
30146	n-hexane (C ₆ H ₁₄) (Cas-nr. 110-54-3, 64742-49-0) ⁹
30164	Nonyl alcohol (1-Nonanol) (C ₉ H ₂₀ O) (Cas-nr. 143-08-8) ⁹
30182	Octadecyl alcohol (Octadecane-1-ol, Stearyl alcohol, Octadecanol) (C ₁₈ H ₃₈ O) (Cas-nr. 112-92-5) ⁹
30165	Octylalcohol (Octane-1-ol, Capryl alcohol) (C ₈ H ₁₈ O) (Cas-nr. 111-87-5) ⁹
30199	Oleic acid (n-octadecane acid) (C ₁₈ H ₃₄ O ₂) (Cas-nr. 112-80-1) ⁹
30174	Oleyl alcohol (Cis-octadec-9-enol) (C ₁₈ H ₃₆ O) (Cas-nr. 143-28-2) ⁹
30198	Palmitine acid (n-hexadecane acid, 1-Pentadecane carboxylic acid) (C ₁₆ H ₃₂ O ₂) (Cas-nr. 57-10-3) ⁹
30201	Palmitoline acid (Cis-hexadecane acid, Palmitoleic acid) (C ₁₆ H ₃₀ O ₂) (Cas-nr. 373-49-9) ⁹
30153	Paraffin wax (Paraffin candle, Paraffin) (Cas-nr. 8002-74-2, 63231-60-7) ⁹
30192	Pelargon acid (n-nonane acid, Pelargon) (C ₉ H ₁₈ O ₂) (Cas-nr. 112-05-0) ⁹
30154	Pentane (C ₅ H ₁₂) (Cas-nr. 109-66-0) ⁹
30151	Polypropylene glycol (PPG) (C ₃ H ₈ O ₂) (Cas-nr. 25322-69-4) ⁹
30168	Propyl acetate (Acetic acid propylester) (C ₅ H ₁₀ O ₂) (Cas-nr. 109-60-4) ⁹
30170	Propyl alcohol (1-propanol) (C ₃ H ₈ O) (Cas-nr. 71-23-8) ⁹
30143	Propylene glycol (1,2-dihydroxypropane, Propane-1,2-diol, Methyl glycol) (C ₃ H ₈ O ₂) (Cas-nr. 57-55-6) ⁹
30171	Propylene tetramer (Tetrapropylene) (C ₉ H ₁₈) (Cas-nr. 6842-15-5) ⁹
30193	Ricinel acid (cis-12-hydroxyoctadec-9- eneacid, Castor oil acid) (C ₁₈ H ₃₄ O ₃) (Cas-nr. 141-22-0) ⁹
30156	Sodium gluconate (C ₆ H ₁₂ O ₇ .Na) (Cas-nr. 527-07-1)
30155	Sodium silicate (Water glass) (Na ₂ SiO ₃) (Cas-nr. 1344-09-8) ⁹
30137	Soja oil (epoxied) (Cas-nr. 8013-07-8) ⁹
30169	Sorbitol (Sorbite, Glucitol) (C ₆ H ₁₄ O ₆) (Cas-nr. 50-70-4) ⁹
30200	Stearine acid (n-octadecane acid, Stearite, Pearl stearic) (C ₁₈ H ₃₆ O ₂) (Cas-nr. 57-11-4) ⁹
30139	Tetra methylol methane (Pentaerythrite) (C ₅ H ₁₂ O ₄)
30210	Tetrahydrofuran (1,4-epoxybutane, Butylene oxide, Diethylene oxide) (C ₄ H ₈ O) (Cas-nr. 109-99-9) ⁹
30179	Tridecyl alcohol (Tridecane-1-ol, Tridecanol) (C ₁₃ H ₂₈ O) (Cas-nr. 27458-92-0, 112-70-9) ⁹
30191	Valerian acid (n-pentane acid, Propyl acetic acid, 1-butane carboxylic acid) (C ₅ H ₁₀ O ₂) (Cas-nr. 109-52-4) ⁹
30134	Vegetable and hydrogenised oils and fats (With the exeption of cashew nut oil and crude tall oil) (non food/non feed) ⁹
30204	White mineral oil (Paraffin oil) (Cas-nr. 8042-47-5) ⁹
30205	Wine lees (Vinasse, Argol, Potassium bitatrate) (C ₄ H ₅ KO ₆) (Cas-nr. 868-14-4) ¹⁰
Products concerning soil	
30046	Garden soil/compost, improves with green compost.
30044	Green compost ⁸
Additives in bulk	
30047	Feed aditives from the list of approved additives (transported in bulk)
Solid mineral fuels	
30055	Antracite (Hard coal)

Loading category 3	
30049	Briquettes
30051	Brown coal and brown coal briquettes (Lignite, B.K.B.)
30054	Coal (bituminous)
30053	Coal and coal agglomerates (Anthracite, Steam coal)
30056	Cokes (Cas-nr. 65996-77-2)
30052	Coking coal (Metallurgical coal)
30048	Eggs coal (Coal)
30050	Halfcokes
Onbekend	
30230	Synthetic gypsum (Flue gas desulphurisation plaster)
30230	Synthetic gypsum (Flue gas desulphurisation plaster)
30230	Synthetic gypsum (Flue gas desulphurisation plaster)

Loading category 4**Fertilisers**40285 Artificial fertilizer¹¹**Other (inorganic) substances/products**

40246 Aluminium silicate (Mullit, Silicic acid) ($2\text{Al}_2\text{O}_3 \times 3\text{SiO}_2$, SiO_3)
40279 Anhydrite (Calcium sulphate) (CaSO_4) (Cas-nr. 7778-18-9)
40276 Burnt gypsum (Cas-nr. –)
40247 Calcium silicate (Wollastonite) (CaSiO_3) (Cas-nr. 13983-17-0)
40242 Calciumcarbonate (Calcereous lime) (CaCO_3)
40241 Chalk slurry, released in lactic acid preparation ($\text{CaCO}_3 + \text{H}_2\text{O}$) ($\text{CaCO}_3 + \text{H}_2\text{O}$)
40255 Clinkers (Hard brick)
40256 Cobblestones
40240 Demineralised water (H_2O)
40245 Extruded Boomse clay (Argex) (Cas-nr. 14808-60-7)
40295 Glass, blown (granulatet) (Cas-nr. 65997-17-3)
40239 Gravel (Crushed stone, Creek rock)
40260 Grit
40278 Magnesium oxide (Magnesium powder) (MgO) (Cas-nr. 1309-48-4)
40253 Metal particles > 10 mm and fat and oil free
40252 Metamix
40251 Mortar cement (Cas-nr. 65997-15-1)
40248 Mortar lime (Cas-nr. 65997-15-1)
40257 Natural gypsum (CaSO_4) (Cas-nr. 13397-24-5)
40249 Nepheline Syenite
40263 Perlite (not powder) (Cas-nr. 93763-70/3, 8075-36-3)
40283 Polyethylene (Cas-nr. 9002-88-4)
40283 Polyethylene (solid synthetic granules) (PE) (Cas-nr. 9002-88-4)
40296 Polyethylene glycol (solid) (PEG) (Cas-nr. 25322-68-3)
40280 Polyethylene terephthalate (solid synthetic granules) (PET) (Cas-nr. 25038-59-9)
40281 Polypropylene (solid synthetic granules) (PP, Polypropene) (Cas-nr. 9003-07-0 / 25085-53-4 / 26063-22-9)
40282 Polystyrene (solid synthetic granules) (PS) (Cas-nr. 9003-55-8 / 9003-53-6)
40284 Polyvinyl Chloride (PVC) in solid synthetic granules (PVC)
40262 Portland cement (Cas-nr. 65997-15-1)
40298 Potassium chloride (Sylvite) (KCl) (Cas-nr. 7447-40-7)
40294 Pumice / Bims
40294 Pumice / Bims
40261 Red shist
40258 Schells
40243 Shingle (Pebbles)
40250 Sodium sulphate (Na_2SO_4) (Cas-nr. 7757-82-6)
40254 Synthetic materials (Plastic)
40238 Talc ($(\text{Mg}_3\text{H}_2(\text{SiO}_3)_4)$) (Cas-nr. 14807-96-6)
40293 Ternair sand
40259 Vermiculite

Loading category 4	
Other (organic) substances/products	
40270	(Waste) paper
40264	Coffe membranes (dried)
40292	Coleseed straw
40292	Coleseed straw
40277	Corn silage for biogas (Cas-nr. –)
40267	Ethanol (Ethyl alcohol) (C ₂ H ₅ OH) (Cas-nr. 64-17-5)
40268	Grass seed, if of a healthy trading quality with respect to animal feed.
40275	Saw dust
40265	Tree bark
40266	Withdrawals from auctions
40269	Wood chipping (Green clippings)
40273	Wood pellets
Products concerning soil	
40234	Garden peat (Frozen black peat)
40233	Garden soil/compost, treated with artificial fertilisers from category LR 4
40231	Sand, not contaminated or originating from (former) industrial sites
40232	Soil from peat excavation/black peat from upland peat excavation/black soil
Other inorganic substances	
40236	Granite (Cas-nr. n.v.t)
40237	Minestone
40235	Quartz (SiO ₂) (Cas-nr. 14808-60-7)
Products or raw materials for human foods	
40271	Products or raw materials for human food
Animal feeds	
40213	Additives in solid/dry form (transported in packaged form)
40218	Compound feed without processed animal proteins
40218	Compound feed without processed animal proteins
40218	Compound feed without processed animal proteins
40218	Compound feed without processed animal proteins
40274	Feed materials of mineral origin
40221	Feed materials of vegetable origin

Loading category 4 (E)**Animal feeds**

- 40286 Animal feeds which contain (processed) animal proteins if the subsequent load is demonstrably intended for pet foods
- 40286 Animal feeds which contain (processed) animal proteins if the subsequent load is demonstrably intended for pet foods
- 40287 Animal feeds with blood products of non-ruminants, if the subsequent load is feeds for non-ruminants
- 40287 Animal feeds with blood products of non-ruminants, if the subsequent load is feeds for non-ruminants
- 40288 Animal feeds with dicalcium phosphate of animal origin, if the subsequent load is feeds for non-ruminants
- 40288 Animal feeds with dicalcium phosphate of animal origin, if the subsequent load is feeds for non-ruminants
- 40290 Animal feeds with fish meal, if the subsequent load is feeds for non-ruminants
- 40290 Animal feeds with fish meal, if the subsequent load is feeds for non-ruminants
- 40289 Animal feeds with tricalcium phosphate of animal origin^{7, 12}
- 40289 Animal feeds with tricalcium phosphate of animal origin^{7, 12}
- 40291 Fish feeds which contain blood products or blood meal, if the subsequent load is feed for meat-eating fur-bearing animals
- 40291 Fish feeds which contain blood products or blood meal, if the subsequent load is feed for meat-eating fur-bearing animals

¹ If products with the specific name are classified in loading category LR2, LR3 or LR4 then the relevant loading category applies.

² Dedicated transport Transport may only be used for other purposes after it has been cleaned and inspected by the competent authority.

³ Dedicated transport Transport may only be used for other purposes after it has been cleaned and inspected by the competent authority. The bulk transport of animal feeds which contain these proteins takes place in facilities which are physically separated from the corresponding facilities for feed for ruminants. Animal feeds in bulk which contain these proteins are not transported at the same time in vehicles which transport feed for ruminants. If the means of transport is then used for the transport of feed for ruminants then it will be thoroughly cleaned in accordance with a cleaning procedure approved by the competent authority in order to avoid carry-over. If the next load of feed is the same animal protein then the vehicles may be used for this without additional requirements.

⁴ If the vehicle is then used for the transport of feed for other productive livestock than fish the vehicle must first be thoroughly cleaned in accordance with a cleaning procedure approved by the competent authority.

⁵ If the company has a control system which is certified by the competent authority in order to avoid carry-over, then vehicles which are used to transport fish meal may be used for other purposes. If the next load of feed is the same animal protein then the vehicles may be used without additional requirements.

⁶ This concerns processed manure and processed manure products, originating from an institution approved by the qualified authority. They must be free of salmonella and enterobacteriaceae (according to measurement of the aerobic germ count: < 1000 kve per gramme of treated product) and the trace and toxin formation must be suppressed.

⁷ Cleaning and disinfectant should take place in accordance with the current legislation (EG 1774/2002). After the transportation of feed materials of animal origin the cleaning and disinfection regime must be carried out which has been prescribed by the competent authority of the country in which the company is established. (see Q&A list Roadtransport)

The following exceptions apply for the Netherlands: - If the following load consists of the same feed material from the same manufacturer then cleaning and disinfection after each use of the means of transport do not have to be carried out. In that case cleaning and disinfection can be done periodically at the end of the working day.

- Melted fats intended for animal feed: Cleaning and disinfection can take place periodically on the basis of the company's own risk assessment, for example 1x per day or 1x per week.

⁸ When there is clearly vegetable compost obtained solely from wood cuttings, plant (remains), hedge clippings, leaves, grass and roadside mowings then loading category 3 applies. This must be specifically indicated when issuing the order.

⁹ For mandatory cleaning with suitable cleansing agent (regime c) and in the case of a tank made of stainless steel, epoxy resin or a technically equivalent substance (see 96/3/EG and KB 1997-12-22).

¹⁰ This does not mean reed vinasse and/or beet vinasse. These are feed materials classified in category 4.

¹¹ The carrier must provide a written cleaning statement to the customer of the next feed transport after each artificial fertiliser journey.

¹² The cleaning and disinfections instructions of the current legislation apply.

ANNEX C: PROCEDURE FOR THE (RE)CLASSIFICATION OF PRODUCTS IN TRANSPORT LOADING CATEGORIES

Products and materials which are **not** included in one of the loading categories 2,3 or 4 in Annex B are prohibited as loads for cargo spaces which are used for animal feeds.

A business which wishes to classify or reclassify a product in one of the loading categories 2, 3 or 4, should submit a request to the Product Board Animal Feed. The company should make use of the application form at the end of this Annex.

The basic principles of the Animal Feed Sector College of Experts (Transport Department) and the Product Board Animal Feed with respect to decision making as a result of the request will be based on the following criteria, to be supplied by the applicant business:

- a. the loading category applied for by the company;
- b. the usual type of transport means for which the company is applying for the loading category;
- c. the cleaning method used by the company;
- d. the risk of residual values or constituents of the product in question after the cleaning method used by the company;

The procedure to be followed is as follows:

1. The company draws up the information form (see appendix 1) indicating, among other things:
 - a. the cleaning method used;
 - b. the usual type of transport means;
 - c. product composition (if possible accompanied by a product sheet / safety information sheet with the complete chemical analysis including impurities and contamination);
 - d. Sample of the product in question (c. 500 gr.);
 - e. The findings and analysis results of the residue sampling after cleaning.
2. The company makes a choice:
 - a. The company should submit the information form directly to the Animal Feed Product Board for the purposes of possible immediate decision making using the information in question and in view of comparable types of product;
 - b. If the Product Board Animal Feed is unable to proceed with accelerated decision-making on the basis of the advice from the College of Experts, then this will be notified within 14 days of receipt;
 - c. The business will first have residue sampling and checking carried out in accordance with the procedure in Annex D and should then submit the information form and the accompanying items as described under 1, including analysis certificates for residue determination;
3. The Product Board Animal Feed will inform the business within 12 weeks of receipt of the complete dossier on the classification advice of the College of Experts, Transport Department.
 - a. If the Animal Feed Product Board considers the dossier not to be complete then the company will receive notice of this within 14 days (by email, fax or letter);
 - b. If the College on the basis of its expertise is unable to give a classification advice on the basis of the dossier then the company may follow the procedure described in 4;
 - c. If a classification advice is given then see item 5.
4. If the College on the basis of its expertise is unable to provide a classification advice on the basis of the dossier then the company should at its own expense request an expert institute to provide an advisory report based on a risk assessment in which there is an indication of into which loading category the product in question may be classified. The company should send the information described in 2b to the institute in question.

5. The expert institute should assess the safety risks for the product for animal feeds (incl. feed materials and other animal feeds) which will be transported in the same cargo space after the product in question and after cleaning in accordance with the prescribed method of cleaning. This includes both the safety risks for animals which consume the subsequently transported feed and for consumers of the products from the animals in question.
6. In the provision of advice relating to the classification into a loading category the expert institute should also take account of the cleaning and disinfection regulations in Annex A and the regulations on the Basic Principles for Cleaning and Disinfection (laid down in § 4.9.4 of the GMP Standard for Road Transport in the Animal Feed sector).
7. The advisory report should be sent to the Animal Feed Product Board for the attention of the Secretary of the College of Animal Feed Sector Experts, Transport Department. The Animal Feed Product Board will inform the company within 3 weeks of receipt of the advisory report of whether the advice of the College of Experts will be followed. The Animal Feed Product Board retains the right to make use of the knowledge arising from the expert advice for the accumulation of expertise in its institutes but guarantees the confidentiality of the advice of the experts.
8. The institutes which are accepted as advisory institutes for the classification of products into loading categories are:
 - a. TNO Voeding, Zeist;
 - b. Rikilt, Wageningen;
 - c. Sterlab accredited institutes which are subject to food safety inspections.The Product Board Animal Feed will also send an invitation to other institutes to see if they wish, on the basis of accreditation, level of expertise, etc, to join the above group of expert institutes.

If the classification advice of the College of Experts suggests a deviation from the loading category applied for by the business then the business may choose either to agree with the classification advice of the College or to withdraw the application for classification.

Information form (Re*)-assessment of loading categories product classification

Product type: Current loading category classification:
Trading name: Product code:
Request that this product be classified in loading category:
Usual means of transport for this product:
Cleaning method used:
(Copy of any cleaning certificate enclosed)
Manufacturer:
Product composition (complete, including any impurities or contamination) (in %):

UN Code: Product sample + Include manufacturer's fact sheet.

Residue samples were composed or collected by:
EN 45004 accredited inspection company (specify company name) in accordance with the accompanying report.

Analysis of residue samples was carried out by(Name of lab)

Chemical constituents analysis: (Sterlab analysis)(incl. impurities / contaminants)

Physical / chemical properties

Toxicological characteristics and other types of risk (carcinogenicity, mutagenity, etc.)

Microbiological and pathogenic properties (for products with organic components)

In the event of microbiological sensitivity an analysis should be carried out for salmonella, clostridia and biogenic amines. According to accompanying analysis certificate number:

Scope of the application / purpose of the product: *

- 0 food grade
- 0 feed grade (healthy trading quality)
- 0 otherwise, namely

* tick where appropriate and specify otherwise.

Details of the party requesting the advice

Number of enclosures:

Name:

Address: Telephone number: Place, Date

ANNEX D: RESIDUE SAMPLING AND DETERMINATION IN CARGO SPACES FOLLOWING TRANSPORTATION OF PRODUCTS FOR WHICH A (RE)CLASSIFICATION INTO LOADING CATEGORIES HAS BEEN REQUESTED (ROAD TRANSPORT).

Under the procedure for (re)classification of products in loading categories for transport, inspection agencies may be invited by GMP-certified transport companies to carry out the necessary work with respect to the taking of sample material for determining residual contamination or its absence.

The work relating to these samples will be carried out by an EN 45004 accredited inspection organisation where the inspection of the cargo space is part of the accredited activities..

The transport company requesting the residue sampling should comply with the following additional conditions:

- a. Together with the application for inspection of the empty and cleaned cargo space the applicant transport company will provide a guarantee that the cargo space is included in the quality system for recognition under the "Animal Feed Transport Certificate";
- b. the applicant transport company provides, with the application for sampling of the cargo space, a list of the 10 previous loads carried in the cargo space prior to the inspection (This list will be signed and dated by the Quality Manager of the transport company);
- c. the applicant transport company provides, with the application for inspection of the cargo space, a list of the cleaning and disinfection carried out after the 5 loads carried in the cargo space prior to the inspection;
- d. the applicant transport company declares that it is willing to issue further information on the nature and characteristics of the loads carried prior to the inspection.

The inspecting company will, after the sampling has been carried out, issue a sample report informing the Quality Manager of the transport company that, on the basis of a visual inspection at the time of the sampling of the cargo space (at a date and time) that the cargo space has been found to be suitable for the transport of animal feeds **subject to further examination with respect to residue contamination** taking into consideration that which is determined in the rules for transport within the framework of the GMP standard for Road Transport Animal Feed Sector.

The sampling is carried out on the basis of a random collection of load residues. Use is made of existing techniques (print plates, swabs, wall wash samples (sterile wipes or sponges)). In addition account should be taken during the random selection of the locations to be sampled of the critical contact points in a loading compartment:

- a. openings and feed-through points
- b. construction roughness/connections
- c. distinguish between low and high contact points
- d. covering material/clips/lid/hinge points/reinforcements.

A cargo residue sample will be collected by the inspection company at a minimum of 8 different contact points. Each cargo residue sample is given a reference which refers to the contact point which was sampled and this information is also recorded in the sampling report.

The residue samples are package in the right way by the inspection company, provided with an identification seal and made available to the company. The packaging and the identification seal are recorded in the sampling report.

Representatives of the carriers of Agribulk will be invited to make an inventory of potential available inspection companies.

The transport company will send the residue samples – together with a sample of the original product – for analysis /determination to an ISO 17025 accredited laboratory, or an animal feed laboratory accredited by means of the GMP's internal inspection system for the determinations in question, with a request to determine whether there are residues present and, if so, in what concentrations.

APPENDIX E: PROCEDURE FOR ACCEPTANCE OF LOADING COMPARTMENTS AFTER TRANSPORT OF FORBIDDEN LOADS

The following steps must be taken in the following order to obtain access to a loading compartment after the transport of a prohibited load (LR1)¹⁾.

- a. After the transport of a prohibited load, the company should carry 5 neutral loads (from LR3 or LR4 in as far as no feeds are involved) in the means of transport in question before it may be released for feed;
- b. After the transport of a prohibited load, the company should carry 5 neutral loads (from LR3 or LR4 as long as feed is not involved) in the means of transport in question (which is to be suitable for that purpose) before it may be released for feed;
- c. Cleaning shall be carried out using a cleansing agent diluted with water, or cleaning with water and cleansing agent, and/or disinfection, according to the nature of the prohibited load, according to a protocol previously developed by the company. The company should demonstrate the carrying out of the cleaning and/or disinfection by way of a European Cleaning Document (ECD) or a comparable cleaning certificate from the cleansing station.
- d. Assessment of the loading compartment before loading with feed and after the above cleaning and disinfection by
 - An independent controlling agency with a certified or accredited status with respect to loading compartment inspections, or
 - An (own) loading inspector from the GMP B1, B2, B3 or B5 certified company which will load the next GMP load into the loading compartment.

The loading inspector referred to above will use a log book to find out which previous loads have been transported and which cleaning and disinfections have been carried out. The loading area of the vehicle is then visually checked for any residue, especially in places that are difficult to clean.

- e. issuing by the loading inspector of a declaration (at the inspection address or the GMP+-certified loading address) that must indicate whether the means of transport of the loading area can be released for further transport of feeds.

A (company) loading inspector is:

- A loading inspector employed by a GMP⁺-certified participant (B1, B2, B3 or B5). This is a position in the quality system which is held by an employee who on the basis of training and experience has the knowledge and expertise to be able to inspect the loading compartment for its suitability for loading with feeds, or
 - A loading inspector employed by a control organisation accredited in accordance with ISO 17020 with a specialisation in feeds or grains or liquid agri-bulk and/or internationally operating in accordance with a recognised certification system such as ISO9001:2000 or an equivalent in which there is demonstrable compliance with the requirements of ISO 17020.
- f. Depending on the previous loads and the results of the visual inspection, further hygiene tests can be carried out using ATP measurements or agar stamps, at the company's expense, and this will be assessed by the loading inspector.

Another possibility is an analysis of the latest flushing water (at the expense of the company). This flushing water should be contained and sent to the laboratory by the independent cleansing station. The loading compartment can be released again for the transport of feed when the analysis results show that the latest flushing water complies with the drinking water norm. This analysis will at least be carried out using the following parameters with respect to the quality of water intended for human consumption:

- Total germination capacity at 22°C and at 37°C
- Coli bacteria
- Escherichia coli (E. Coli)
- Ammonium
- Colour
- Electrical conductivity
- Hydrogen ion concentration (PH)

- Nitrate
- Nitrite
- Odour
- Taste
- Degree of turbidity.

If these minimum parameters are not sufficient and other parameters are more relevant then the analysis should be done using these other parameters. The company will therefore have to carry out a risk analysis in this case taking into account, among other things, the nature of the previous load(s), the transport conditions and the nature of the cleansing carried out.

***) The following loads are excluded from release via the procedure described above:**

- Loads in LR1 (E): (Products containing) processed animal proteins These loading compartments must be released by the competent authority in accordance with the requirements of Reg. (EG) 999/2001.
- For subsequent LR1 loads, release is only allowed by a loading inspector from a ISO 17020 accredited inspection agency:
 - o Category 1, 2 and unprocessed Category 3 material - Reg. (EG) 1774/2002
 - o Gas oil
 - o Lubricating oil
 - o Mineral clay that has been used for detoxification
 - o Radioactive material
 - o Domestic waste and all fractions derived from this
 - o Untreated food remains
 - o Sewage sludge

This procedure is as shown in the following diagram:

