PRODUCTSCHAP DIERVOEDER

GMP+ Certification Scheme Animal Feed Sector 2006

Minimum Requirements for Road Transport

Appendix 14

Adopted by the Central College of Experts for the Animal Feed Sector	25 January 2008
Approved by the Executive Committee of the Product Board Animal Feed	--
Publication / Version	28 March 2008
Effective date	28 March 2008

Table of contents

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 basis 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 the 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 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) certain animal products in accordance with Regulation (EC) no. 999/2001" [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) certain animal products in accordance with Regulation (EC) no. 999/2001" [a]	after unloading	A	
		Residue after dry cleaning	B	
		(Odour) residue after cleaning with water	C	
LR 4 (T)	Compound feeds and premixes 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 and premixes with nicarbazine or sulphas

[a] By "(Products containing) certain animal products in accordance with Regulation (EC) no. 999/2001" is meant:
- Processed animal proteins(as defined in Reg.(EC) no. 1774/2002),
- blood products,
- hydrolysed proteins,
- dicalcium phosphate and tricalcium phosphate (of animal origin),
- gelatin from ruminants,
- feeds which contain these animal products (these products fall under LR4(E) if the subsequent load is demonstrably intended for pet foods)

This does not include (if designated as processed category 3 material):
- milk and products on the basis of milk and colostrum,
- colostrum
- eggs and egg products,

- hydrolysed proteins from parts of non-ruminants or from skins of ruminants (Hydrolysed protein shall have a molecular weight below 10,000 Dalton),
- gelatin from non-ruminants and
- collagen.

Definition of processed animal proteins:" according to Reg.(EC) no. 1774/2002:

Animal proteins that were derived fully from category 3 material and that were processed in accordance with Appendix V, Chapter II in order to make these suitable as direct feed material or to be used otherwise in feed, including pet food, or in biological fertilisers 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 nircarbazine/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 catergory 3 material (in accordance with definition Reg. (EG) 1774/2002)
Fertilisers	
10001	Animal manure
10002	Garden soil/compost treated with animal fertiliser
10003	Mushroomsubstrate
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)
10052	Alkanen, C9-12-iso (Cas-nr. 90622-57-4 (EINECS 292-459-0))
10012	Asbestos or materials containing asbestos
10010	Asphalt (fresh) and asphalt rubble
10014	Blast furnace slag ((Furnace) slak) (CaO, SiO_2, MgO, Al_2O_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)
10054	Naphtha (mineral oil) (Special Petrol 60-95) (Cas-nr. 64742-49-0 (EINECS 265-151-9))
10007	Petroleumkoks (Wet and dry petroleumcokes, Green cokes) (Cas-nr. 64741-79-3, 64743-05-1)
10050	Praepagen HY
10005	Radioactive material
10053	Solvent naphtha (mineral oil) (Hydrofoil A170) (Cas-nr. 64742-95-6 (EINECS 265-199-0))
10055	Solvent naphtha (mineral oil) (Hydrofoil A200) (Cas-nr. 64742-94-5 (EINECS 265-198-5))
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	

Loading category 1	
10020	Domestic waste and all derived fractions in as far they are not sanitised.
10019	Ftalaatester (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)
(Products with) processed animal proteins	
10038	Biological fertilisers which contain other processed proteins than fishmeal[2]

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-ruminanrs[3]
10042 Animal feeds with blood products from not-ruminanrs[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 Tricalcumphosphate (of animal origin)[2]
10044 Tricalcumphosphate (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)
Unknown 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) ($(AlxFe_1\text{-}x)_2(SO_4)_3$)
30063	Aluminium oxide (Al_2O_3) (Cas-nr. 1344-28-1)
30057	Aluminium sulphate ($Al_2(SO_4)_3$) (Cas-nr. 10043-01-3)
30064	Aluminiumhydroxide powder ($Al(OH)_3$) (Cas-nr. 21645-51-2)
30065	Ammonium hydroxide (Ammonia, Ammonia solution, Ammonia in aqueous solution) (NH_4OH) (Cas-nr. 1336-21-6 (EINECS 215-647-6))[9]
30061	Ammonium polyphosphate (APP) (Cas-nr. 68333-79-9, 10124-31-9)[9]
30059	Ball clay (China clay, Fire clay, Kaoline) ($Al_2Si_2O_5(OH)_4$)
30058	Barium sulphate (Barite) ($BaSO_4$) (Cas-nr. 7727-43-7)
30222	Batteries, used (Cas-nr. –)
30081	Bauxite, calcinated (powder) (Al, O en H ($Al_2O_3.nH_2O$))
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) ($H_2BO_{3\cdot3}H_2O$, 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) ($Ca(OH)_2$) (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)
30245	De-inking sludges from paper recycling
30101	Debris glass
30070	Diatomaceous earth (Kiezel 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) ($FeSO_{4\cdot7}H_2O$) (Cas-nr. 7720-78-7)

Loading category 3	
30078	Ferrous carbonate (Siderite, Iron ore, FER-C) ($FeCO_3$) (Cas-nr. 563-71-3)
30076	Ferrous oxide (Iron oxide) (FeO) (Cas-nr. 1345-25-1)
30233	Flakes Sulphur
30233	Flakes Sulphur
30086	Kaoline (Chamotte (fr)) (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	Mangaan dioxide (MnO_2) (Cas-nr. 1313-13-9)
30224	Melamine (1,3,5-triazine-2,4,6-triamine) ($C_3N_6H_6$) (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 ($K_5P_3O_{10}$) (Cas-nr. 13845-36-8)[9]
30082	Phosphoric acid (Orthophosphoric acid) (H_3PO_4) (Cas-nr. 7664-38-2)[9]
30085	Phosphoric acid plaster (Phosphogypse) ($CaSO_4{,}_2H_2O$)
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_2CO_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)
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_2CO_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) ($NaBO_{3\cdot4}H_2O$) (Cas-nr. 10486-00-7)[9]
30103	Sodium tetraborate (Bore sodium oxide, Borax glass, Dinatrium tetraborate anhydride) ($Na_2B_4O_7$) (Cas-nr. 1330-43-4)
30110	Spodumene (Lithium aluminium silikate) ($LiAlSi_2O_6$)
30115	Stone chippings $<$ 10 mm
30121	Sulphuric acid (H_2SO_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) (TiO_2) (Cas-nr. 13463-67-7)
30226	Tripolyphosphate[9]
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) ($(Na_2O)(Al_2O_3)(SiO_2)_2$) (Cas-nr. 1318-02-1)
30116	Zinc oxide (Waelz oxids, Chinese white) (ZnO) (Cas-nr. 1314-13-2)
30118	Zinc powder (Zinc dust) (Zn, $_2$NO) (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) ($C_8H_{18}O$) (Cas-nr. 104-76-7)
30127	Acetic acid (CH_3COOH) (Cas-nr. 64-19-7)[9]
30130	Acetic acid anhydride (Ethane acid anhydride) ($C_4H_6O_3$) (Cas-nr. 108-24-7)[9]
30129	Acetone (Dimetyl ketone, Propane-2-on, DMK) (C_3H_6O) (Cas-nr. 67-64-1)[9]
30206	Acid oils and fatty acid distillates[9]
30131	Adipic acid (1,4-butane dicarbonxylic acid) ($C_6H_{10}O_4$) (Cas-nr. 124-04-9)[9]
30128	Antifreeze (Ethyene glycol, EG, Ethane-1,2-diol) ($C_2H_6O_2$) (Cas-nr. 107-21-1)
30196	Arachide acid (Icosane acid) ($C_{20}H_{32}O_2$, $C_{20}H_{40}O_2$) (Cas-nr. 506-30-9, 506-32-1)[9]
30175	Arachidic acid (Eicosanoic acid) ($C_{20}H_{40}O_2$) (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) ($C_{22}H_{44}O_2$) (Cas-nr. 112-85-6)[9]
30123	Benzyl ($C_{14}H_{10}O_2$) (Cas-nr. 134-81-6)
30126	Benzyl alcohol (C_7H_8O) (Cas-nr. 100-51-6)[9]
30152	Butane diol (1,3 Buthylene glycol) ($C_4H_{10}O_2$) (Cas-nr. 107-88-0, 110-63-4, 513-85-9)[9]
30160	Butanon (Methyl ethylketone, MEK) (C_4H_8O) (Cas-nr. 78-93-3)[9]
30172	Buthyl alcohol (Butane-1-ol) ($C_4H_{10}O$) (Cas-nr. 71-36-3)[9]
30124	Butyl acetate (n-, sec- en ter-butylacetate) ($C_6H_{12}O_2$) (Cas-nr. 123-86-4, 105-46-4, 540-88-5)[9]
30142	Butylene glycol (1,2-butandiol, 1,2-dihydroxy butane) ($C_4H_{10}O_2$) (Cas-nr. 584-03-2)[9]
30173	Butyric acid (Butane acid, Ethyl acetic acid, Propane carboxylic acid) ($C_4H_8O_2$) (Cas-nr. 107-92-6)[9]
30141	Calcium lignosulphonate[9]
30132	Candelilla wax (Candelilla cera) (Cas-nr. 8006-44-8)[9]
30187	Caprin acid (n-decane acid) ($C_{10}H_{20}O_2$) (Cas-nr. 334-48-5)[9]
30190	Capron acid (n-Hexane acid) ($C_6H_{12}O_2$) (Cas-nr. 142-62-1)[9]
30188	Capryl acid (n-octane acid) ($C_8H_{16}O_2$) (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_6H_{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) ($C_4H_8O_2$) (Cas-nr. 141-78-6)[9]
30209	Fatty acid esters[9]
30227	Fatty acid esters[9]
30240	Fatty acid not from animal orign for cosmetic industry (Cas-nr. 67701-02-4 / 61788-89-4 / 90990-15-1 + 67762-27-0)
30246	Garden furniture wood, treated
30189	Heptane acid ($C_7H_{14}O_2$) (Cas-nr. 111-14-8)[9]
30166	Heptyl alcohol (Heptane-1-ol) ($C_7H_{16}O$) (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) ($C_6H_{14}O$) (Cas-nr. 111-27-3)[9]
30147	Iso-buthyl acetate (2-Methylpropylacetate, Acetic acid isobutylester) ($C_6H_{12}O_2$) (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) ($C_8H_6O_4$) (Cas-nr. 121-91-5)
30149	Isononanol (Isononyl alcohol, 7-methyloctanol, Isononol) ($C_9H_{20}O$) (Cas-nr. 27458-94-2)[9]
30150	Isooctanol (Isothyl alcohol, Oxooctyl alcohol) ($C_8H_{18}O$) (Cas-nr. 26952-21-6)[9]
30212	Latex (Vinamul 3231) ($(CH_3)_3SiO(Si(CH_3)_2O)nSi(CH_3)_3$) (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 (Dodeclyl 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_4O) (Cas-nr. 67-56-1)[9]
30158	Methyl isobuthyl ketone (4-methyl pentane-2-on, MIBK) ($C_6H_{12}O$) (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) ($C_5H_{12}O$) (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]

Loading category 3	
30184	Myristoline acid (Tetradecene acid) ($C_{14}H_{26}O_2$) (Cas-nr. 544-64-9)[9]
30145	n-heptane (Dipropylmethane) (C_7H_{16}) (Cas-nr. 142-82-5)[9]
30146	n-hexane (C_6H_{14}) (Cas-nr. 110-54-3, 64742-49-0)[9]
30164	Nonyl alcohol (1-Nonanol) ($C_9H_{20}O$) (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) ($C_8H_{18}O$) (Cas-nr. 111-87-5)[9]
30199	Oleic acid (n-ocatdecane 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 carboxulic 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) ($C_9H_{18}O_2$) (Cas-nr. 112-05-0)[9]
30154	Pentane (C_5H_{12}) (Cas-nr. 109-66-0)[9]
30151	Polypropylene glycol (PPG) ($C_3H_8O_2$) (Cas-nr. 25322-69-4)[9]
30168	Propyl acetate (Acetic acid propylester) ($C_5H_{10}O_2$) (Cas-nr. 109-60-4)[9]
30170	Propyl alcohol (1-propanol) (C_3H_8O) (Cas-nr. 71-23-8)[9]
30143	Propylene glycol (1,2-dihydroxypropane, Propane-1,2-diol) ($C_3H_8O_2$) (Cas-nr. 55-57-6)[9]
30171	Propylene tetramer (Tetrapropylene) (C_9H_{13}) (Cas-nr. 6842-15-5)[9]
30193	Ricinol acid (cis-12-hydroxyoctadec-9- eneacid, Castor oil acid) ($C_{18}H_{34}O_3$) (Cas-nr. 141-22-0)[9]
30156	Sodium gluconate ($C_6H_{12}O_7$.Na) (Cas-nr. 527-07-1)
30155	Sodium silicate (Water glass) (Na_2SiO_3) (Cas-nr. 1344-09-8)[9]
30137	Soja oil (epoxied) (Cas-nr. 8013-07-8)[9]
30169	Sorbitol (Sorbite, Glucitol) ($C_6H_{14}O_6$) (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) ($C_5H_{12}O_4$)
30210	Tetrahydrofuran (1,4-epoxybutane, Butylene oxide, Diethylene oxide) (C_4H_8O) (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) ($C_5H_{10}O_2$) (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) ($C_4H_5KO_6$) (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)
Other inorganic substances	
30244	Magnetite (crushed)

Loading category 3
30100 Quartz powder (Silicium dioxide) (SiO_2) (Cas-nr. 14808-60-7)
Animal feeds
30243 Premixes (in liquid form)
Solid mineral fuels
30055 Antracite (Hard coal)
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
Unknown
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 fertilizer[11]
Other (inorganic) substances/products	
40246	Aluminium silicate (Mullit, Silicic acid) ($_2AL_2O_3$ x $_3SiO_2$, 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 (CaCO3 + H2O) ($CaCO_3 + H_2O$)
40255	Clinkers (Hard brick)
40256	Cobblestones
40240	Demineralised water (H_2O)
40245	Expanded 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 ($(Mg_3H_2(SiO_3)_4)$) (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_2H_5OH) (Cas-nr. 64-17-5)
40302 Garden furniture wood, untreated
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 (Clay)
Other inorganic substances
40236 Granite (Cas-nr. n.v.t)
40300 Magnetite (stone)
40237 Mine stone (Natural stone)
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[12]
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
40299 Premixes (in solid form)
(Products with) processed animal proteins
40301 Reed

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, 13]
40289	Animal feeds with tricalcium phosphate of animal origin[7, 13]
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 companys 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. The general requirement will of course remain additionally applicable that if after dry cleaning there are load residues in the means of transport then there must always then be wet cleaning.

[12] 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/sulphas 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).

[13] 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

For the release of a loading compartment a carrier may choose from two possibilities after the transport of a prohibited load:

1. Release by an ISO 17020 accredited inspection body

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)[*)].

a. Cleaning specific to the nature of the prohibited load shall be carried out using a cleansing agent diluted with water (and cleansing agent) and disinfection in accordance with a protocol previously detailed by the company.

b. Assessment of the loading compartment - at the expense of the company - before loading with feed and after the above cleaning and disinfection by an independent controlling body with a certified or accredited status with respect to loading compartment inspections. A This means that the release must be done by 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 ISO 9001:2000 or an equivalent in which there is demonstrable compliance with the requirements of ISO 17020.

The controlling body 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.

c. Issuing by the loading inspector of a declaration (at the inspection address) that must indicate whether the means of transport of the loading compartment can be used for the transport of feeds.

d. 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 the analysis of the flushing water (for more information see item 2).

2. Release by a loading inspector from a GMP$^+$-certified participant (B1, B2, B3 or B5).

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)[*)].

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. 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.

c. Assessment of the loading compartment before loading with feed and after the cleaning and disinfection referred to above by 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 feed company is not permitted to release its own means of transport in this way.

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.

d. Issuing by the loading inspector of a declaration (at the GMP+-certified loading address) that must indicate whether the means of transport or the loading compartment can be released for the 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

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).

*) **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:
  - Category 1, 2 and unprocessed Category 3 material - Reg. (EG) 1774/2002
  - Gas oil
  - Lubricating oil
  - Mineral clay that has been used for detoxification
  - Radioactive material
  - Domestic waste and all fractions derived from this
  - Untreated food remains
  - Sewage sludge

The release procedure is as shown in the following diagram: