



Technical Specifications

TS1.9 - Transport activities

Version EN: 1 January 2024



Index

1. INTRODUCTION	3
1.1. SCOPE OF THIS DOCUMENT	3
1.2. GUIDANCE FOR THE READER	3
2. ORDERING THE TRANSPORT OF FEED	5
3. AFFREIGHTMENT OF LOADING COMPARTMENTS	6
3.1. ACCEPTING AN ORDER TO TRANSPORT FEED	6
3.2. REQUIREMENTS REGARDING LOADING COMPARTMENTS	6
3.2.1. <i>SELECTING A LOADING COMPARTMENT</i>	6
3.2.2. <i>ISSUING AN ORDER FOR A LOADING COMPARTMENT INSPECTION</i>	7
3.2.3. <i>EXECUTION OF A LOADING COMPARTMENT INSPECTION</i>	8
3.2.4. <i>ACCEPTANCE OF A LOADING COMPARTMENT</i>	9
4. TRANSPORT OF FEED	11
4.1. CLEANING OF A LOADING COMPARTMENT BEFORE LOADING	11
4.2. TRANSPORT OF FEED	11
4.2.1. <i>REQUIREMENTS FOR LOADING COMPARTMENTS</i>	11
4.3. DOCUMENTATION REQUIREMENTS	14
APPENDIX: TRANSPORT SEQUENCE, CLEANING REGIMES AND RELEASE PROCEDURES	15

1. Introduction

1.1. Scope of this document

This document specifies the requirements for GMP+ certified companies responsible for one or more of the following activities:

- the ordering of transport bulk and/or packaged feed;
- arranging the transport of bulk and/or packaged feed;
- the physical transport of bulk and/or packaged feed by road, sea going vessel or rail.

Note: For requirements for the transport of bulk and/or packaged feed by inland waterways and short sea shipping vessels, see TS3.3 Inland waterway transport and short sea shipping of feed.

1.2. Guidance for the reader

This document sets out the requirements for each of the above-mentioned activities (see § 1.1).

The requirements in this document are **in addition** to those set out in the R1.0 *Feed Safety Management Systems Requirements*. Each GMP+ certified company involved in the transport process is responsible for feed safety. This includes making clear agreements about responsibilities with other parties involved.

The table below is a guide to help you determine whether your certified company is carrying out one of the above-mentioned activities. It also shows where the relevant requirements can be found.

Chapter no.	Activity	Examples of companies responsible for this activity
Chapter 2	Giving the order to transport feed	<ol style="list-style-type: none"> a production/trading company selling the product; a production / trading company purchasing the product; a transport company which outsources the transport to another company.
Chapter 3	Arranging the transport of feed for yourself or for third parties, including: <ul style="list-style-type: none"> accepting an order to transport feed; selecting a loading compartment; issuing an order for Loading Compartment Inspection; approval of loading compartment. 	<ol style="list-style-type: none"> an affreightment company arranging the transport for a third party; a transport company that arranges external transport a transport company performing these activities for its own transport a production / trading company with its own transport
Chapter 4	Transporting or feeding, including: <ul style="list-style-type: none"> Cleaning of loading compartment before loading; 	<ol style="list-style-type: none"> a transport company that provides transport as a service; a production / trading company with own transport

- | | |
|--|--|
| <ul style="list-style-type: none">• Physical transportation;• Documentation | |
|--|--|

In addition to the activities covered by the requirements in this document, there are other activities which are related to the transport process. For example, the loading of a loading compartment or receiving transported products on site. Detailed information about those related activities can be found in TS1.1 *Prerequisite program*, § 9.1.

2. Ordering the transport of feed

The certified company responsible for ordering the transport of feed must:

- a. provide the following information to the company responsible for the transport of feed to ensure that it can apply a correct cleaning regime:
 1. the product description, including the specific product characteristics;
 2. the physical state of the product (for example dry state, moist/liquid state, water soluble, greasy product)
 3. the name of the feed certification scheme which applies to the company receiving the physical products on site.
- b. ensure that in the event of short sea transport, inland waterway transport, sea transport and / or rail transport, a Loading Compartment Inspection (LCI) takes place to check the cleanliness of the loading compartments before loading begins.

3. Affreightment of loading compartments

3.1. Accepting an order to transport feed

Before accepting an order, the certified company responsible for the transport of feed -- or the certified company responsible for arranging the transport of feed -- must determine:

- a. the description (nature and type) of the product;
- b. the cleaning regime according to / based on:
 1. the International Database Transport (for) Feed (IDTF) (see [Appendix: Transport sequence, cleaning regimes and release procedure](#) in the case of road transport and rail transport -- excluding agri-only rail transport, see 2).
When transporting products to a company which participates in another feed certification scheme, the strictest of the two cleaning regimes in the IDTF List of Differences applies;
 2. brush cleaning in the case of agri-only rail transport;
 3. Appendix 1 of TS 3.3 *Inland waterway transport and short sea shipping of feed* in the case of short sea shipping and inland waterways transport;
 4. a hazard analysis in the case of sea-going vessels.

3.2. Requirements regarding loading compartments

3.2.1. Selecting a loading compartment

The GMP+ certified company selecting a loading compartment must:

- a. document at least the information as stated in the table below;
- b. provide the company responsible for the transport of feed with this information.

The company responsible for the transport of feed must confirm this documentation when accepting the transport.

Information to document	Means of transportation		
	Road	Inland waterway Short sea vessel Seagoing vessel	Railway
Name, nature and number of the (loading) compartments designated for the product to be transported	√	√	√
Prove that: 1. the purchased loading compartment is covered under the scope of the feed safety management system of the certified supplier or	√	√	√

Information to document	Means of transportation		
	Road	Inland waterway Short sea vessel Seagoing vessel	Railway
2. the release procedure, as specified in Appendix Transport sequence, cleaning regimes and release procedure, is applied.			
Description (nature and type) of the product	√ preferably IDTF number	√	√ preferably IDTF number
Loading compartments cleanliness clause*	√	√	√
Nature/name of the previous load(s) and the cleaning operations**	√ at least the last three previous loads and the cleaning operations performed after them	√ at least the last three previous loads and the last cleaning operation	√ at least the last previous load and the last cleaning operation
In the event of partial loads: specification of a non-GMP+ certified secondary load in another loading compartment ***	√	√	√
Indication of who will perform the Loading Compartment Inspection	Not applicable	√	√
Location of the Loading Compartment Inspection (not necessarily the loading place)	Not applicable	√	√
<p>* With this clause, the GMP+ certified company responsible for the transport of feed declarations to supply clean, empty, dry (if necessary) and free from undesired odors, loading compartments which are suitable in every respect for being loaded with -- and transporting -- the batch.</p> <p>** see Appendix Transport sequence, cleaning regimes and release procedure.</p> <p>*** The GMP+ certified company responsible for the transport of feed must notify the company responsible for arranging the transport of feed if the loading compartment has a non-GMP+ certified secondary load in another loading compartment. The GMP+ certified company responsible for arranging the transport of feed must report this to the company giving the order to transport feed.</p>			

3.2.2. Issuing an order for a loading compartment inspection

(only applicable in the case of short sea shipping, inland waterway shipping, transport by sea and rail)

The loading compartment inspection must be done by an external official control organization or loading inspector.

When GMP+ certified company responsible for arranging the transport of feed orders a Loading Compartment Inspection, that inspection must be carried out by an external official control organization.

However, GMP+ certified companies responsible for arranging the transport of their own products by rail wagons, are permitted to carry out the Loading Compartment Inspection themselves.

The GMP+ certified company which issues an order for a Loading Compartment Inspection must provide the control organization or loading inspector with at least the following information:

- a. location of the Loading Compartment Inspection;
- b. specification that the order concerns a loading compartment inspection within the framework of the GMP+ Feed Safety Assurance module;
- c. descriptions and quantities of the products;
- d. nature/name/number(s) and owner of the loading compartment(s);
- e. indication 'Agri-only' when applicable;
- f. quantity, number, mention of the loading compartment intended for the batch;
- g. if applicable, instructions with regard to:
 - partial load / partial stowage;
 - combined loading / separate stowage.
- h. in the event of:
 - short sea transport, inland waterway transport or sea transport: at least the last three previous loads and the last cleaning operation;
 - rail transport: at least the last previous load and the last cleaning operation.
- i. anticipated date of inspection;
- j. loading location;
- k. contact details for the loading location;
- l. details of the person to report to;
- m. the destination of the batch.

3.2.3. Execution of a loading compartment inspection

(only applicable in the case of short sea shipping, inland waterway shipping, transport by sea and rail)

The GMP+ certified company instructing the control organization or load inspector must ensure that the Loading Compartment Inspection is carried out in accordance with the following criteria:

- a. the loading compartment must be suitable for the transport of products to be loaded. It must be visually checked to make sure it is:
 - clean, empty, dry (if necessary) and free from undesired odors;
 - absence of elements that may have a negative impact on the safety of the products to be loaded, such as residues of previous loads and/or impurities;
 - absence of insects or pests;

- closable and in good condition. A check must be made to verify that the means of transport protects the products to be transported against influences from other products to be transported and against outside influences.
- b. It is clear how to act if nonconformities (as stated in a above) are found;
- c. findings are retained as documented information;
- d. reporting in writing on the findings of the Loading Compartment Inspection are provided to the GMP+ certified company instructing the control organization.

3.2.4. Acceptance of a loading compartment

(only applicable in the case of short sea shipping, inland waterway shipping, transport by sea and rail)

The loading compartment inspection report must contain the following information in order for the loading compartment to be accepted.

The loading compartment inspection report must contain at least the following elements:

- a. title: *Load Compartment Inspection Report - GMP+ Feed Safety Assurance module*
- b. identification of the load unit
- c. location and date of inspection
- d. destination
- e. name of instructing party
- f. intended weight (kg) to load
- g. name or product
- h. confirmation of acceptance of the previous loads within the GMP+ Feed Safety Assurance module and in the event of:
 - short sea transport, inland waterway transport or sea transport: at least the last three previous loads and the last cleaning operation;
 - rail transport: at least the last previous load and the last cleaning operation.
- i. confirmation that the load compartments comply with the following requirements:
 - empty
 - clean
 - dry, if necessary
 - free from undesired odours
 - free from insects
 - free from residues of previous loads
 - completely intact and can be closed
- j. type of heating (tankers)
- k. final result: acceptance or refusal of the load compartment(s)
- l. remarks
- m. name and signature of load inspector
- n. name and signature of the captain
- o. In the event of a partial batch the following information must be retained as documented information:
 - that the loading compartment is already partly loaded;
 - the visually established condition of the already present load;

- the intended method of loading and/or separation from the new batch.

The report on the findings of the Loading Compartment Inspection must be made known to the company responsible for ordering the transport of feed and -- in the event of short sea transport, inland waterway transport or seagoing transport -- to the owner of the loading compartment immediately after completion.

 Helpful tip:

The captain's signature on the report confirms the previous loads are as stated in the loading compartment inspection report.

4. Transport of feed

4.1. Cleaning of a loading compartment before loading

Before feed is transported, the loading compartment must be cleaned. The minimum cleaning requirements -- depending on the type of transport -- are the following cleaning regimes:

- a. the International Database Transport (for) Feed (IDTF) sequence, cleaning regimes and release procedure (see [Appendix](#) below) in the case of road transport and rail transport (excluding agri-only). When transporting products to a company which participates in another feed certification scheme, the strictest of the two cleaning regimes in the IDTF List of Differences applies.
- b. brush cleaning in the case of agri-only rail transport;
- c. TS3.3 in the case of Inland waterway transport and short sea shipping;
- d. a risk-based cleaning program in the case of sea going vessels.

The company responsible for the transport of feed must have a cleaning program, which includes at least:

- e. the responsibilities with regard to the cleaning;
- f. the cleaning methods;
- g. the frequency and timing of the cleaning;
- h. the use of cleaning and disinfection agents. These must be food-grade and suitable for the purpose for which they are used. Residues of detergents and disinfectants must be kept to a minimum.
- i. the implementation of the correct cleaning and disinfection regime ([IDTF database](#) / TS3.3 *Inland waterway transport and short sea shipping of feed*) depending on the previous load.

Rail transport: When Agri-only loading compartments are used -- the GMP+ certified company responsible for the loading compartment must set up a risk-based cleaning program, which includes at least the elements e) to i) above.

The water (including spring water, rainwater and/or open water) with which the loading compartments are cleaned, must not have a negative impact on the feed safety of the feed to be transported (TS1.1 *Prerequisite program*, § 4.2 Water and steam).

Check on the effectiveness of cleaning and disinfection systems

The company responsible for the transport of feed must assess the effectiveness of the cleaning and disinfection methods used. In order to do this, it must have a monitoring plan which includes the minimum frequency of the checks to be performed.

4.2. Transport of feed

4.2.1. Requirements for loading compartments

The transport of feed must take place in a clean loading compartment.

During transport, GMP+ assured feed must not become mixed with another product, including other batches of GMP+ assured feed.

Loading compartments -- and parts of the means of transport critical for feed safety -- must be clean. The company responsible for the transport of feed must ensure that loading compartments:

- a. are made from materials which -- in order to prevent contamination of feed -- can be cleaned. This applies in particular to surfaces that come into direct contact with feed;
- b. are suitable for the intended use and function in accordance with the intended use;
- c. enable good hygiene practices;
- d. provide prevention from contamination occurring during loading and unloading;
- e. (empty or loaded) are covered unless a risk assessment shows that not covering will not have an adverse impact on feed safety. Tarpaulins to be used for covering loading compartments must be clean for bulk loads and also be dry if the load consists of dry feed;
- f. are not accessible to unauthorized persons during resting hours and at night.

The company responsible for the transport of feed must be able to demonstrate that no forbidden loads have been transported in the loading compartment. If a forbidden load has been transported, there must be proof that the release procedure, as specified in Appendix *Transport sequence, cleaning regimes and release procedure*, has been applied correctly after this transport.

 **Helpful tip:**

When we refer to "Surfaces that can come into direct contact with feed" think about items like unloading hoses, and cleaning tools such as brooms and brushes. For example, brooms used for cleaning a loading compartment must be free of dirt before the start of the cleaning process.

 **Helpful tip:**

Forbidden Loads . All products classified as forbidden or not classified at all in the IDTF, are **forbidden** as loads (called "forbidden loads") for means of transport which transport products used for animal feed.

 **Helpful tip:**

It is useful to keep in mind that also in the purchased loading compartments no forbidden loads have been transported.

4.2.1.1. Additional requirements for combination vehicles

When combination vehicles specifically designed for the transport of feed and forbidden loads are used, some additional requirements apply:

- a. feed and forbidden loads must not be transported simultaneously;
- b. there is a complete physical separation between compartments intended for transport of feed and compartments intended for forbidden loads;

- c. there is a complete physical separation between feed and forbidden loads during loading and unloading;
 1. This includes Avoiding cross-contamination around loading and unloading points, use of separated equipment for loading and unloading feed and forbidden loads (pipes, hoses, couplings, fittings, connectors etc.), and the prevention of overflowing during tank filling;
- d. the compartments used for the transport of forbidden loads are never used for transport of feed unless all parts that can come into contact with the load (loading compartments, pipes, coils, pumps, etc.) are replaced by new equipment;
- e. all compartments must be accessible for visual assessment;
- f. a device must be present for the removal of external soiling on the vehicle (for example, an integrated water tank with spraying device);
- g. the clear identification of load compartments must be guaranteed. It must be defined which load compartments are used for feed and which are used for forbidden loads.
- h. combined transport is carried out with vehicles with permanently installed solid compartments. Use of reusable flexible tanks/liners is only allowed under the following conditions:
 1. The flexible tank supporting system (the pump, as well as the piping and valves) is divided from the compartment intended for transport of feed in such a way that leakage from the supporting system cannot affect the compartment intended for the transport of feed.
 2. Before the flexible tank is used, the GMP+ certified company must ensure that the trailer is free from residues that can cause damage to the flexible tank.
 3. When not in use, the flexible tank must be stored behind a protective partition wall.
 4. There must be a clear identification label on each flexible tank and each supporting system unit.
 5. The useful life of the flexible tank is a maximum of 5 years after the first use, after which the bag must be demonstrably replaced. Earlier replacement is necessary if the flexible tank is subjected to wear and tear.
 6. The flexible system must be tested and approved by an independent inspection body for load securing (the system must be stable and not prone to rupture during transport). Part of the certification is a regular check, at least once a year, by the manufacturer -- or by persons authorized by the manufacturer -- in accordance with EN 12642 / EN 12195 or equivalent.
Defects in the body configuration as well as on the flexible tank system must be remedied immediately. The elimination of defects is only permitted by the manufacturer or by companies authorized by the manufacturer.
 7. The flexible tank must comply at least with the following minimum technical requirements:
 - Fabric: PET
 - Weight: 1150g/m²
 - Tensile strength: warp 5600 N/5cm, weft 5400 N/5cm
 - Tear resistance: warp 1000 N/ weft 900N
 - Temperature resistance: -30 ° C to +70 ° C
 - Resistance to damage by flexing: no cracks after 100,000 flexures

4.3. Documentation requirements

The company responsible for the transport of feed must retain as documented information:

- a. the successive transports;
- b. the cleaning operations between successive transports;
- c. inspections and checks;
- d. bulk transport in a journey sheet:
 - loads per loading compartment -- preferably with an IDTF number;
 - the cleaning operations performed after the transport of those loads;

The company responsible for the transport of feed must have available for inspection:

- e. the journey sheet on the loading compartment;
- f. the registration of the previous three loads (including cleaning operations) in that loading compartment provided with date and signature of the company responsible for the transport of feed;
- g. in the event of rail transport, the registration of the last previous load with its last cleaning operation;
- h. the legally required transport documents.

 **Helpful tip:**

It's useful to remember that it is still important to have the above-mentioned documented information available for Agri-only loading compartments. This information is necessary to facilitate the risk-based cleaning program as described in [§ 4.1](#).

 **Helpful tip:**

It's useful to keep in mind that also for the purchase of loading compartments for your own use the registration of the previous loads (including cleaning operations) must be available.

Appendix: Transport sequence, Cleaning regimes and Release procedures

This appendix includes:

- i. requirements for the determination of the correct transport sequence in relation to transported feed;
- ii. guidelines to the steps of different cleaning regimes;
- iii. requirements for the release of loading compartments after the transport of forbidden loads.
- iv. Release procedure in accordance with a documented procedure authorized by the competent authority

i. Transport sequence in relation to transported feed

Transport sequence

Only products listed in the [International Database for Transport of Feed \(IDTF\)](#) with one of the cleaning regimes A, B, C or D are allowed as previous loads before feed transported by road transport and transport by rail. For transport by inland waterway and short sea shipping vessels, the product list from Appendix 1 in TS3.3 *Inland waterway transport and short sea shipping of feed*, applies. In the event of transport by sea going vessel, the company responsible for arranging the transport of feed must draw up criteria with respect to previous loads on the basis of risk assessment.

International Database Transport (or) Feed (IDTF)

The IDTF contains the requirements relating to transport sequence and the cleaning and disinfection regimes for a large amount of products. The IDTF can be consulted via <https://www.icrt-idtf.com/>. The list with established cleaning and disinfection regimes may change over time. The changes are published in GMP+ newsletter. A request for (re-)classification of products with one of the cleaning regimes may be submitted to GMP+ International (<https://www.icrt-idtf.com/procedures/>).

Cleaning regimes

The basic principles for different cleaning regimes can be found in [chapter 2](#), below. The established cleaning regimes are to be considered as a minimum requirement. If the loading compartment is not clean after the cleaning operation in question -- then additional cleaning must take place.

Release procedure

Products which are not listed in the IDTF database or in Appendix 1 in TS3.3 *Inland waterway transport and short sea shipping of feed* with one of the cleaning categories regimes A, B, C or D are forbidden as loads for means of transport in which feed is also carried. The company responsible for the transport of feed must be able to show that in the past no forbidden loads were transported. After transport of a forbidden load, the loading compartment in question may only be used for transport of feed after a release of the means of transport:

- by an independent loading compartment inspector, or

- in accordance with a documented procedure authorized by the competent authority. See for this [§ 4](#) below.

ii. Cleaning and Disinfection regimes

Four basic regimens can be distinguished with respect to cleaning and disinfection:

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

Within a cleaning regime it is allowed to deviate from the steps described below, based on the assessment of the effectiveness of the cleaning and disinfection methods ([see § 4.1](#)).

Cleaning regime A (dry cleaning)

Application:

- After the transport of dry 'neutral' products, before the first transport of feed.

The general cleaning regime is as follows:

- a. clean the means of transport by suction, 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.

Helpful tip:

When dry cleaning, it is worth remembering that generally there is a preference for suction, as this cleaning method ensures no spreading of dust or dirt.

Cleaning regime B (cleaning with water)

Application:

- After the transport of products with cleaning regime B, before the first transport of feed.
- After the transport of, for instance, vapor or sticky substances or possibly harmful chemicals.
- Companies carrying out transport using bulk tankers must wet clean these tankers at least once every three months unless it can be demonstrated that there are no remains present in the bulk tanker.

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 cold water, or warm if necessary, and pay attention to difficult places;
- c. manual cleaning;
- d. high pressure cleaning with water;
- e. dry through ventilation or hot air dryer.

Helpful tip:

If you are cleaning open vehicles, it is usually best to use a high-pressure cleaner with a flat nozzle with at least 25 bar pressure or higher. If you need to remove chemicals (for example chemical fertilizers), warm water (at least 60°C), is best in order to dissolve the chemicals more easily. It is worth remembering that places that are difficult to reach can if necessary be cleaned separately with additional means, such as brushes. It is important to remember that the water must be able to be drained off.

Cleaning regime C (cleaning with water and cleaning agent)

Application:

- After the transport of a load containing protein or grease, before the first transport of feed.
- Only food grade cleaning agent may be used.

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 or 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.

Helpful tip:

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 proteins 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.

Cleaning regime D (cleaning and disinfection)

Application:

- After the transport of products with cleaning regime D, before the first transport of feed.
- When preceding loads are microbiologically unacceptable (detectable signs of decay)
- When it is known that loads carry micro-organisms that cause disease, such as Salmonella.
- Only legally-permitted food grade disinfectants may be used.
- Another form of disinfection (for example high humidity steam, smoke bombs) may only be applied if its effectiveness has been established.

The general cleaning regime is as follows:

- a. cleaning in accordance with cleaning regime A, B or C
- b. disinfection with a disinfectant at a dosage indicated in the instructions for use.
- c. If necessary wet rinse
- d. if necessary dry through ventilation or hot air dryer.

 Helpful tip:

It is helpful to be aware of the different types of cleaning and disinfectant products. 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 feed transport vehicles, use of a disinfectant approved for the food industry is the only other alternative.

Keep in mind that the use of a combined cleaning and disinfecting agent containing active chlorine is only possible when it is used on smooth surfaces that are easy to clean, such as stainless steel.

In all other cases it's really better to clean first and then disinfect afterwards. In that case, it is advisable to use disinfectants containing active chlorine, when disinfecting open vehicles.

However, using cleaning agents containing chlorine is not advisable on materials which corrode easily -- or after an acid cleansing -- due to the possibility of toxic chlorine gases forming. In that case, quaternary ammonium compounds may be used as an alternative (except for tank cleaning with spray balls due to foam forming). The advantage of quaternary ammonium compounds is that they stick better and therefore work longer. The disadvantage is that they are more difficult to remove.

For closed tankers, you can consider using acetic acid. Its advantage is that it is activated less by residues than active chlorine is. However, it does have a penetrating odor and also harms rubber -- two disadvantages. Remember that disinfectants must be given at least five minutes to take effect.

It really is advisable to rinse after disinfection, in order to avoid the risk of residues, unless it can be demonstrated that residues do not constitute a risk. Also good to remember: in some cases, removing the disinfectant can lead to the development of surviving bacteria if the surface remains wet for too long.

You can carry out various extra checks to assess how effective the cleaning and/or disinfection method you have used was:

- ATP (Adenosine Tri Phosphate) 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 application of ATP is not useful in most cases of transport of chemicals.
- Agar stamps can be used in order to verify the effectiveness of a particular disinfection technique in use.
- HPLC and Mass Spectrometry (MS) may be used for checking on chemical residues and pesticides.
- Microscopic screening methods laid down in [Regulation \(EC\) No 152/2009](#) may be used for checking on components of animal origin.

iii. Procedure for the release of Loading compartments after the transport of Forbidden Loads

The company responsible for the transport of feed must be able to show that in the past no forbidden loads were transported. After transport of a forbidden load, the loading

compartment in question may only be used for transport of feed after a release of the means of transport

- by an independent loading compartment inspector, or
- in accordance with a documented procedure authorized by the competent authority (see [§ 4](#) below.)

Note: loads containing one of the products mentioned in [§ 4](#) can only be released by the competent authority. The release options in [§ 3](#) below cannot be applied for loads containing those products.

a. Road transportation

The company responsible for the transport of feed has two possibilities for releasing a loading compartment after the transport of a forbidden load:

Option A: Release by a control organization or certification / inspection body

The following steps must be taken in the sequence specified in order to obtain admission of a loading compartment after the transport of a forbidden load.

1. A cleaning operation designed specifically for the nature of the forbidden load must be carried in accordance with a protocol worked out in advance by the company.
2. Assessment of the loading compartment - at the company's expense - before loading with feed and after the above-mentioned cleaning operation by a qualified loading inspector from an independent control organization or a certification / inspection body. See F0.2 *Definition list*.
The loading inspection verifies on the basis of the logbook which previous forbidden loads have been transported and which cleaning and disinfecting operations have been performed. The loading compartment of the means of transport is then assessed visually for any residues, especially in places which are hard to clean.
3. Depending on the previous loads and the results of the visual inspection, additional hygienic measurements can be performed - in the judgment of the loading inspector and at the expense of the company - by means of ATP measurements or agar stamps. Another possibility is an analysis of the flushing water.

Issue by the loading inspector of a statement (at the inspection address) which must show that the transport means / loading compartment can be used again for the transport of feed.

Option B: Release by a loading inspector from a GMP+ certified company.

The following steps must be taken in the sequence specified in order to obtain admission of a loading compartment after the transport of a forbidden load.

- After the transport of a forbidden load, the company must carry out 5 loads with cleaning A, B or C, in so far as these are not feed, before this loading compartment can be released for feed;

- A cleaning operation designed specifically for the nature of the last forbidden load must be carried out in accordance with a protocol worked out in advance by the company. The company must demonstrate the performance of the cleaning and/or disinfection by means of a European Cleaning Document (ECD) or an equivalent cleaning certificate from the cleaning station.

At least the following must be indicated:

- identification of the loading compartment
 - date and time of the cleaning operation
 - last forbidden load
 - cleaning steps
 - of what has been cleaned with success identification: tanks (compartments), ancillaries and components having contact with the product
 - cleaning agents / disinfection agents that have been used
 - water temperature
 - cleaning process duration
 - tests that have been carried out.
- Assessment of the loading compartment before loading with feed and after the above-mentioned cleaning and disinfection by a qualified (own) loading inspector of the GMP+ certified production or trading company which will load the next GMP+ load in the loading compartment. For (own) loading inspector see F0.2 *Definition list*. A GMP+ certified company is not allowed to release its own means of transport in this way.
 - The above-mentioned loading inspector verifies on the basis of the logbook which previous forbidden loads have been transported and which cleaning and disinfecting operations have been performed. The loading compartment of the transport means is then assessed visually for any residues, especially in places which are hard to clean.
 - Depending on the previous loads and the results of the visual inspection, additional hygienic measurements can be performed - in the judgment of the loading inspector and at the company's expense - by means of ATP measurements or agar stamps. Another possibility is an analysis of the flushing water.
 - Issue by the loading inspector of an attestation (at the GMP+ certified loading address) which states that the transport means / the loading compartment can be used again for the transport of feed.
 - For the following forbidden loads the release is only allowed by a loading inspector from a control organization or a certification / inspection body as described in Option A.
 - Category 1, 2 and unprocessed category 3 material - Regulation (EC) Reg. (EC) 1069/2009 and Reg. (EC) 142/2011
 - Gasoline
 - Lubricating oil
 - Mineral clay that has been used for detoxification
 - Radioactive material

- Domestic waste and all fractions derived from it
- Untreated food remains
- Sewage slurry

b. Inland waterway transport and short sea shipping

For release procedure for inland waterway vessels and coasters which have transported forbidden or unlisted loads, see:

- TS3.3 *Inland waterway transport and short sea shipping of feed*, HACCP WORK PLAN 9c;
- [§ 4](#) of this Appendix.

c. Rail transportation

The following steps must be taken in the sequence specified in order to obtain admission of a wagon after the transport of non-agri products.

- A cleaning operation designed specifically for the nature of the non-agri product must be carried out in accordance with a protocol worked out in advance by the company. Only food grade cleaning agents and disinfectants may be used.
- Assessment of the wagon – at the company's expense – before loading with feed and after the above-mentioned cleaning operation by a qualified loading inspector from an independent control organization or a certification / inspection body. For further information, see F0.2 *Definition list*.
- The loading inspector verifies on the basis of the logbook which previous load has been transported and which cleaning and disinfecting operations have been performed. The wagon is then assessed visually for any residues, especially in places which are hard to clean.
- Depending on the previous non-agri load and the results of the visual inspection, additional hygienic measurements can be taken – in the judgment of the loading inspector and at the company's expense – by means of ATP measurements or agar stamps. Another possibility is an analysis of the flushing water.
- Issue by the loading inspector of a statement (at the inspection address) which must show that the wagon can be used again for the transport of feed.

iv. Release procedure in accordance with a documented Procedure authorized by the Competent Authority

Loads containing one of the following products are excluded from release via the procedures described above:

1. Processed animal proteins.
2. Blood products derived from non-ruminants.
3. Fishmeal.
4. Dicalcium phosphate and tricalcium phosphate of animal origin.
5. Products derived from ruminants other than:
 - 5.milk, milk-based products, milk-derived products, colostrum and colostrum products;

- 5.dicalcium and tricalcium phosphate of animal origin;
- 5.hydrolyzed proteins derived from ruminant hides and skins.

These loading compartments must be cleaned in accordance with a documented procedure which has been given prior authorization by the competent authority, in accordance with the requirements from [Regulation \(EC\) No. 999/2001](#).



Feed Support Products

Where to find more about the GMP+ International Feed Support Products

Fact sheets

More information: <https://fsd.gmpplus.org/pagina/6/fact-sheets.aspx/>

<https://gmpplus.org/feed-certification-scheme/scheme-documents/>

We enable every company in the
feed chain to take responsibility for
safe and sustainable feed.

GMP+ International

Braillelaan 9

2289 CL Rijswijk

The Netherlands

t. +31 (0)70 – 307 41 20 (Office)

+31 (0)70 – 307 41 44 (Help Desk)

e. info@gmpplus.org

Disclaimer:

This publication was established for the purpose of providing information to interested parties with respect to GMP+-standards. The publication will be updated regularly. GMP+ International B.V. is not liable for any inaccuracies in this publication.

© GMP+ International B.V.

All rights reserved. The information in this publication may be consulted on the screen, downloaded and printed as long as this is done for your own, non-commercial use. For other desired uses, prior written permission should be obtained from the GMP+ International B.V.