

Transport of Festool battery packs

(Lithium-ion batteries, hereafter battery or battery pack)

1. Foreword

ATTENTION!

The following leaflet describes on the one hand **the transport of Festool battery packs with a lithium-ion basis with and without equipment** and **on the other hand, the transport of used battery packs and batteries** for shipment within the return system.

Persons carrying out the transport of hazardous goods to ADR must commission a hazardous materials manager who will be able to, following the necessary training with examination, compose the specific guidelines to adhere to in transport for them. Alternatively, an external hazardous materials manager can also be commissioned.

General obligations from the hazardous goods law, such as training, instruction or the provision of a hazardous materials manager are to be observed separately.

Please obtain information on further general obligations as supplier, shipper, vehicle owner and/or transporter of hazardous goods.

This short presentation of obligations according to the hazardous goods law does not release you from your own due diligence as well as the observation of guidelines according to the original legal text.¹

Please note that violations of these guidelines will be prosecuted with severe penalties. Only hazardous goods legislation is considered in this leaflet. Please note that the requirements arising from other legal areas (such as commercial law, vehicle law etc.) must also be observed.

The nickel metal hydride battery offered by Festool (BPS 12 S NiMH) is actually assigned a UN number (UN 3496), however, to date it has only been rated as class 9 hazardous goods in maritime traffic. These batteries are not currently considered hazardous goods in road transport.

¹ See

- (1) "Verordnung über die innerstaatliche und grenzüberschreitende Beförderung gefährlicher Güter auf der Straße, mit Eisenbahnen und auf Binnengewässern (Gefahrgutverordnung Straße, Eisenbahn und Binnenschiff – GGVSEB)" (Ordinance on the Transport of Dangerous Goods by Road, Rail and Inland Waterways (GGVSEB)) **in the respectively valid version;**
- (2) "The European agreement from 30th September 1957 concerning the International Carriage of Dangerous Goods by Road (ADR)" **in the respectively valid version.**

2. Framework conditions for using the leaflet

The details in this leaflet are restricted to the typical situations which can occur for Festool dealers and **only to battery packs transported alone as hazardous goods** (the only exceptions are the explicitly detailed case studies).

Persons transporting hazardous goods require a hazardous materials manager (examination with CCI required), provided exemptions are not exclusively used.

A possible exemption is transport according to the "1000 point rule", whereby certain (not all!) ADR guidelines do not have to be observed.

If lithium-ion batteries are transported as the sole hazardous goods and the **maximum amount does not exceed 333 kg**, then this rule can be applied.

If transports are only carried out under these conditions, then no hazardous materials manager is necessary and no additional requirements must be fulfilled for the vehicle and vehicle occupants. In particular, the vehicle occupants must not have passed the hazardous goods training (with examination).

As this makes it easier for Festool dealers to transport lithium batteries this leaflet is restricted to this situation.

For larger quantities of lithium batteries (over 333 kg) or generally for the combined transport with other hazardous goods, transportation as hazardous goods transport must be carried out with adherence to the ADR guidelines on the roads. The leaflet cannot be used. In these cases, the guidelines must be clarified with an expert or your hazardous materials manager.

For lithium batteries, the quantity limit of 333 kg is decisive for partial exemption from ADR guidelines which corresponds for the heaviest battery pack at the moment, the BP 18 Li 6.2 AS, to a quantity of 450 of these battery packs. Correspondingly, a larger number of smaller battery packs can be transported under these conditions.

For battery packs with equipment (packed with them or contained in equipment) only the weight of the batteries needs to be taken into consideration for the quantity limit according to the hazardous goods law.

3. Exemption from the hazardous goods guidelines (ADR)

In the following cases, the guidelines for the hazardous goods do not apply (full exemption):

Transporting groups	Prerequisites	Characteristics
Private people	Intended for household or private use and packed for retail	Retail packing applies to the original Festool packing
Commercial customers which transport battery packs for operation in their equipment in the scope of their main activities (for example, carpenters, painters, carpentry businesses)	Quantities below 333 kg and note for the driver that this concerns hazardous goods and <u>no supply journey</u> (supply journeys would be the collection of battery packs in the customer's own commercial warehouse)	Quantities of 333 kg only apply to the <u>sole transport</u> of battery packs as hazardous goods; with other hazardous goods, the quantity for exemption is drastically reduced or omitted entirely! No total exemption is possible for supply journeys. ➤ see also here case study A
Festool External service Customer adviser	Quantities below 333 kg (only Festool battery packs) or compliance with the 1000 point rule (further hazardous goods; only partial exemption) ➤ see also here case study D	As the batteries are required to demonstrate equipment, transport falls under the scope of your main activity, "the demonstration of equipment". The sale of batteries does not fall under this exemption.

Practical tip:

You must believe your commercial customers if they assure you that it does not concern a supply journey as you cannot check this.

Should it emerge in the scope of a police check that this was the case you will be held responsible in your function as a shipper.

In cases of uncertainty you can obtain written confirmation that this does not concern a supply journey and the exemption can be used. This gives you assurance that you have not acted with negligence or intent. In these cases, also try to gain confirmation that no further hazardous goods are loaded and that the driver has been made aware of hazardous goods with lithium batteries.

4. Road transport under simplified conditions

4.1 Basic duties

Assuming that you are at least active for Festool as a **shipper** in the sense of ADR you are responsible to adherence to the following guidelines.

The **shipper** must check when handing over hazardous goods whether the packing has been damaged. It is to ensure that a deliver item is only shipped if the packing is securely packed. The necessary hazard note and other labels are to be observed.

Furthermore, the vehicle driver must be made well aware of the hazardous goods.

The **shipper and the vehicle driver** must observe the guidelines regarding loading and handling:

- Receiving inspection (for example, fire extinguishers, devices for loading safety, cleanliness – no leaked hazardous goods)
- Loading ban in the event of defects
- Mixed loading ban and quantity restrictions per vehicle, separation rule for foodstuffs, beverages and tobacco products
- Guidelines regarding uncleaned empty packing must be observed
- Loading safety: individual delivery items must be stored and secured in such a way that they can only minimally change their position in relation to each other as well as to the vehicle walls
- Smoking ban near all loading work

If you also package goods yourself, the following applies to you:

As a **packer** you must adhere to the packing guidelines, in particular regarding the labelling and delivery notes as well as the mixed packages ban. Only sealed packing may be used. The guidelines regarding the use (and labelling) of outer packing is also the responsibility of the packer.

Additional reliefs can also be used for batteries with low levels of energy storage. These are described in chapter 4.3. Only the batteries listed there require guidelines. All other batteries must be transported according the guidelines in chapter 4.2.

If you wish to transport batteries which are listed in chapter 4.3 together with batteries which are not listed there in one package, then the guidelines in chapter 4.2 apply to the batteries in this package.

If the batteries named in chapter 4.3 are in one (or several) package(s) which correspond(s) to the requirements in regard to the type and label according to chapter 4.3 and the batteries not labelled there are in one (or several) other package(s) which correspond(s) to the requirements in chapter 4.2 all delivery items can be sent in one delivery. However, in the transport papers only the batteries packed according to chapter 4.2 are to be listed in the transport paper.

4.2 Transport guidelines under simplified conditions

The following information relates to the Festool battery packs (lithium-ion batteries) and cannot be applied to other batteries. In particular, largely the same guidelines apply to lithium metal batteries, but other UN numbers, so that separation is required.

In addition to the guidelines described here there are separate guidelines which can currently only be used with the following batteries due to the amount of energy stored in the Festool batteries (see chapter "4.3 Special cases"):

BP 18 Li 5.2 AS

BP 18 Li 3.1 C

BP-XS 2.6 Ah Li-Ion.

Decisive for the designation of the hazardous goods is whether they concern

- **Only battery packs or**

if these are

- **Battery packs packed with equipment or**
- **Battery packs contained in equipment**

for transport.

There are different UN numbers and designations here for hazardous goods.

The following simplified transportation conditions result taking into consideration a maximum transported quantity of 333 kg lithium-ion batteries (no other hazardous goods):

Transport goods	Battery pack	Battery pack <u>packed together with equipment</u>	Battery pack <u>contained in equipment</u>
UN number	UN 3480	UN 3481	UN 3481
Hazardous goods designation (for details in transport note)	LITHIUM-ION BATTERIES	LITHIUM-ION BATTERIES, Packed with equipment	LITHIUM-ION BATTERIES contained in equipment
Packing guidelines	Packing must correspond to the guidelines of packing group II.	The battery packs must have inner packing made from cardboard which corresponds to the guidelines of packing group II.	The outer packing must be strong enough to prevent unintentional operation of the equipment during transport.
Labelling of delivery items	 <p>(Nr. 9A)</p>		
Simplifications	<ul style="list-style-type: none"> • No written indications necessary • No vehicle labelling necessary (orange board) • Drivers do not require an ADR certificate • No tunnel restrictions apply • Additional passengers may be taken as well as occupants of the vehicle • Vehicles do not require hazardous goods approval 		
Necessary vehicle equipment	<ul style="list-style-type: none"> • Devices for safe loading • At least one fire extinguisher (fire classes A, B, C with a minimum capacity of 2 kg powder; sealed; observe check date; protected against the weather and attached in an easily reachable position in the vehicle) 		

Transport papers

Transport papers with the following information are to be kept in the vehicle or handed over (in written form):

- **UN 3480** or **UN 3481**
(corresponding to transport goods, see above)
- **Waste**
(only for removal)
- Hazardous goods designation
(corresponding to transport goods, see above)
- **9**
(Hazardous goods class, also label with note 9A)
- **II** or **VG II**
(Packing group)
- **(E)**
(Tunnel code)

Note:

The information must appear in this order.

Examples:

UN 3480 Lithium-ion batteries, 9, II, (E) or

UN 3480 Waste lithium-ion batteries, 9, II, (E) or

*UN 3481 Lithium-ion batteries packed with equipment,
9, VG II, (E)*

(The further information can appear in any order but it must be present)

- *Quantity and description of the delivery items (for example, 2 barrels)*
- *The total quantity of lithium batteries being transported (in kg)*
- *Name and address of the sender (your address) as well as of the recipient*

4.3 Special cases (simplified transport conditions)

If the stored energy is at a maximum of 100 Wh, simplified transport conditions can be used according to Special Provision 188 ADR. If the requirements of this special provision are fulfilled, no further ADR guidelines must be followed.

Currently, the following listed requirements apply only to the batteries which are currently deliverable:

BP 18 Li 5.2 AS

BP 18 Li 3.1 C

BP-XS 2.6 Ah Li-Ion.

Thus, this exception is generally also used for delivery on the part of Festool and the packages can also be used in this form for further delivery. The exception does not require transport papers according to the hazardous goods law (may be necessary for freight).

Transport goods	Battery pack	Battery pack packed with equipment	Battery pack contained in equipment
Application	Nominal energy of the battery pack up to 100 Wh		
Packing guidelines	Batteries must be fully enclosed by inner packing; short circuits must be prevented; strong outer packing		Batteries secured against damage and short circuit; effective agent against unintentional operation; sufficiently strong outer packing
Designation	 Dimensions: 120 mm wide and 110 mm high See also note on labelling		
UN number to be given	3480	3481	
Note regarding telephone number	The respective telephone number of the service company in the respective country is to be given [for information if there are queries].		
Characteristics	Max. gross quantity per delivery item of 30 kg packing must sustain a drop test from 1.2 m height	Packing must sustain a drop test from 1.2 m height	

It is recommended to use the original Festool packing and labelling.

Driving is only possible according to the hazardous goods guidelines listed above **or** this special provision. A mixture always represents a violation of hazardous goods law and will be prosecuted as appropriate administrative offences.

5. Case studies

The following situations are considered as case studies:

- Collection by a commercial customer within the scope of their main activity (case study A)
- Delivery to a customer commissioned by a forwarding company (case study B)
- Delivery to a customer with own vehicles (case study C)
- Transportation of demonstration devices with battery packs by the Festool external service (case study D)

(A) Collection by a commercial customer in the scope of its main activity

Transport by the customer can take place in certain conditions as described above under 4.2, provided it carries out the transport within the scope of its main activity and the quantity does not exceed 450 litres (for batteries: 333 kg).

For carpentry businesses this means, for example, working on a roof structure, using necessary equipment which requires lithium-ion batteries.

If collection takes place in its internal or also in an external warehouse (supply journey), the exception is not applicable and transportation must occur according to ADR regulations.

Since, as a shipper, you could be held responsible you should obtain written confirmation that this is not a supply journey.

Otherwise you must check during the lading whether the listed vehicle equipment is present and you must give the driver transport papers with the required information (see also basic duties).

(B) Delivery to a customer: you commission a forwarding company

In this case, you are the **sender** and **shipper** according to ADR.

You must inform the forwarding company of the hazardous goods and must, in addition to the UN number and quantity of hazardous goods (here battery packs in kg), also provide the total gross weight of the goods being transported (if the batteries are transported with equipment).

This data puts the forwarding company in a position to decide, depending on its other loaded goods, whether it can use an exemption or has to carry out transport under the full ADR regulations. You must hand over transport papers with the complete information.

As **shipper** you must observe the basic duties described above when making a collection.

(C) Delivery to a customer: you deliver to a customer yourself

1. Normal case (according to chapter 4.2)

You must adhere to the listed regulations for “Road transport for Festool battery packs under simplified conditions”. You have the duties of the **sender, packer, shipper and transporter**.

As **sender** you must inform your drivers of the hazardous goods. You must ensure that only approved and suitable packing is used. You are obliged to give the vehicle driver the transport papers for each delivery.

As **a transporter / vehicle owner** you are responsible for ensuring the vehicle driver has access to the necessary equipment for loading safety and that the on-board fire extinguishers are checked every two years (within the Federal Republic of Germany).

2. Special case (according to chapter 4.3)

Only if exclusively the batteries named in chapter 4.3 taking into consideration the packing and labelling described there are transported can further requirements be omitted.

3. Mixed (according to chapters 4.2 and 4.3)

The batteries named in chapter 4.3 may not be located in delivery items in which the unnamed batteries are also packed.

However, should this be the case, this delivery item must correspond to the requirements in chapter 4.2 regarding type and labelling. Only the batteries which are packed according to chapter 4.2 need to be considered in the required transport papers.

Otherwise, all delivery items can be delivered with a single transport.

(D) Transport of demonstration devices with battery packs by the Festool external service

If only Festool battery packs are transported as hazardous goods according to ADR, there is a transportation of the battery packs by the Festool external service employee within the scope of its main activity (demonstration), meaning you can make use of the same exception, for example, carpentry businesses, forestry businesses or road maintenance depots (see chapter 3). Transporting batteries for sale or for third parties is not covered by this exception.

The highest quantity here is 333 kg. Transport takes place with exemption from all ADR regulations. Nonetheless, loading safety should also be observed.

6. Return of used batteries

A return system for used device batteries is to be set up by the member states of the European Union.

As this EU guideline is to be implemented by the member states as national law, this implementation is taking place in different ways. For this reason, no detailed information can be provided regarding collection and return systems for used Festool batteries in this leaflet. There may also be separate return guidelines for lithium batteries.

Please observe the disposal guidelines in your country in relation to this. Do not dispose of batteries in household refuse or in other ways.

This information has been compiled with the advice of the Umweltkanzlei Dr. Rhein Beratungs- und Prüfgesellschaft mbH, Sarstedt – www.umweltkanzlei.de

This leaflet aims to compile legal guidelines in a more succinct and understandable form. Due to the complexity and the possible variations on location, this leaflet cannot be complete. In case of doubt please seek clarification from Festool, the authorities or another competent expert.