



## IMPORTANT LEGAL REGULATIONS FOR MOBILE FUEL SYSTEMS

Transport of hazardous substances, e.g. petrol or diesel, is generally subject to comprehensive national and international regulations.

### National:

- GGVSEB** Ordinance on the transport of dangerous goods by road, rail, and inland waterways
- GGVSee** Ordinance on the transport of dangerous goods by maritime shipping

### International:

- ADR** International agreement on transport of dangerous goods by road
- RID** International agreement on transport of dangerous goods by railway
- ADN** International agreement on transport of dangerous goods by inland shipping
- IMDG code** International agreement on transport of dangerous goods by seagoing vessels

For transport of hazardous substances, type-tested and approved containers like tankers, tank containers and packaging including intermediate bulk containers (IBCs) are generally required. Rietbergwerke manufacture tank containers, IBCs and packaging. In terms of their capacity, tank containers are theoretically unlimited; IBCs have a maximum capacity of 3,000 litres and packaging is restricted to a capacity of 450 litres.

As mentioned, the specified regulations are generally applicable. However, there are differences in application depending on the approval of the container and exceptions. Please note that the conditions for safe transport and universal application are only met by approved containers.

To ensure better readability, the term ADR is used in the following to refer to all regulations on transport of hazardous substances.

## PACKAGING AND IBCS

### Approval and type testing

Whether a container is approved packaging or an approved IBC can be identified clearly by its code.

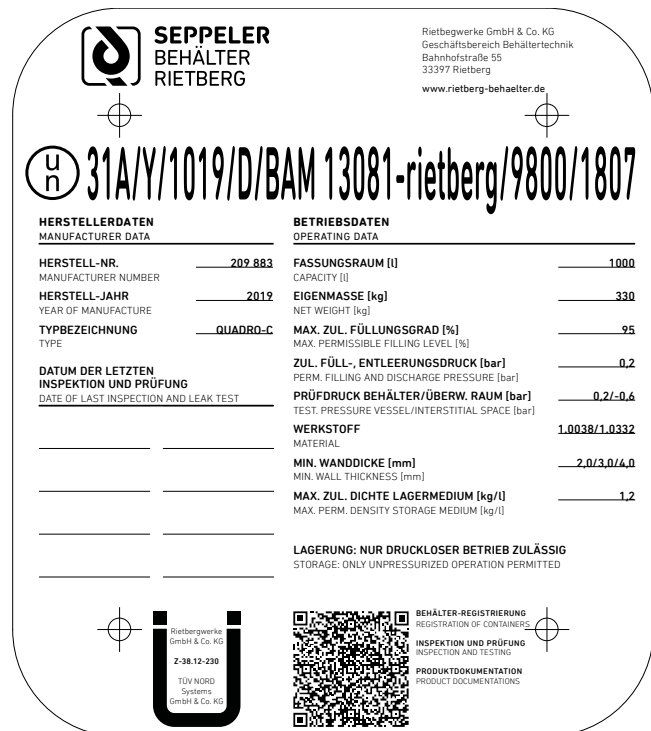


Fig. 1 -1: Example of a name plate for an IBC container

### Example for IBC coding of a Rietberg QUADRO-C 1000:

UN 31A / Y / 0120 / D / BAM 13081-rietberg / 9800 / 1807

1 2 3 4 5 6 7 8

- Manufactured, tested and approved according to UN packaging regulations
- Steel IBC for fluids
- Approved for substances of packaging groups II and III
- Manufacturing month and year
- Country of approval
- Approving institution, approval number and manufacturer
- Test load of the stacking pressure test in kg. "0" is specified if the IBC is not stackable
- Maximum admissible gross weight in kg

### Example for packaging coding of a Rietberg CONTY-B 450:

UN 1A2W / Y / 150 / 17 / D / BAM 14373-rietberg

1 2 3 4 5 6 7

- Manufactured, tested and approved according to UN packaging regulations

- 2 Steel barrel with fixed cover
- 3 Approved for substances of packaging groups I, II and III
- 4 Test pressure in kPa
- 5 Manufacturing year
- 6 Country of approval
- 7 Approving institution, approval number and manufacturer

**Marking**

Packaging and IBCs are to be marked as follows according to ADR chapter 5.2:

- > The UN no. of the transported substance (e.g. diesel: UN 1202)
- > The mark for environmentally hazardous substances (fish and tree, black on white surface)
- > Hazard label (e.g. diesel: no. 3, flame, black or white on red surface)

The specified markings have to be attached on two opposite sides of IBCs with a capacity of more than 450 litres and on one side of smaller packaging.

Additionally, the containers are to be labelled with substance-related hazard warnings according to GHS.

In addition to the container, we provide a set of adhesive labels

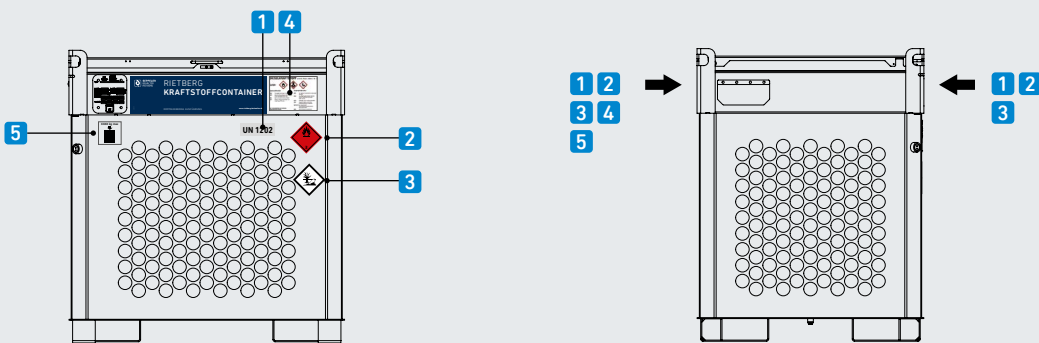
for initial marking.

Additionally, a pictogram on the ICB specifies whether the container is stackable or not.

The following illustration is an example for marking of an IBC for diesel.



**Exemplary illustration for the identification marking of an IBC for diesel**



No.	Type	Description	Mobile tank quantity/volume	
			< 450 litres	> 450 litres
1	UN 1202	Transported substance diesel	1	2
2		Hazard label	1	2
3		Environmentally hazardous substances	1	2
4		Safety information	1	1
5		not stackable	1	1
		stackable (admissible stacking load is specified!)	1	1



- ◀ Test place: Water pressure tests for pressure tanks; TÜV approvals by expert assessors; helium leak test for vacuum-sealed welded containers and vessels

### Services and Inspections

All IBC containers must be subjected to recurring inspections, calculated from the date of the initial (factory) inspection, based on a cycle of 2 ½ years as follows:

#### SERVICE AFTER 2½ YEARS

Implemented by a BAM registered servicing body II, according to BAM-GGR 002 – Part B, Paragraph B 1.2.1, B 2.1 and B 3.1

#### Scope of servicing:

- › Inspecting the external condition
- › Inspecting the identification marking
- › Inspecting the function of the operating equipment
- › Leak testing with air at 0.2 excess pressure

#### SERVICE AFTER 5 YEARS

Implemented by a BAM registered servicing body I, according to BAM-GGR 002 – Part A, Paragraph A 1.2.1, AB 2.1 and A 3.1

#### Scope of servicing:

- › Scope of the servicing after 2 ½ years
- › Inspecting the concordance with the construction sample
- › Internal inspection



**FOR PACKAGING, NO REPEATED INSPECTION AND TESTING IS REQUIRED.**

### INFORMATION

Every tested and inspected IBC must correspond with the construction sample. A test and/or inspection report must be created for every service and leakage test. This report must be retained by the owner at least until the next service. The inspections can be additionally documented in the service plan.

### Simplified transport

Under defined conditions, ADR section 1.1.3.6 enables transport of hazardous substances under simplified conditions (without ADR certificate or vehicle marking, etc.) if the specified maximum capacity per transport unit, for example,

Medium	Pack. size	Transp. cat.	Max. capacity
Petrol	II	2	333 litres
Diesel	III	3	1,000 litres

is not exceeded.

If goods with different transport categories are transported in the same unit, the 1000 points rule applies. For determination of the total score, the volumes of transport category 2 are multiplied by a factor of 3 and the volumes of transport category 3 by a factor of 1. For simplified transport, the total score of 1,000 points must not be exceeded. For example:

- › Petrol, II, 2: 150 litres x 3 = 450 points
- › Diesel, III, 3: 500 litres x 1 = 500 points
- › **Total: 950 points**

Even though numerous ADR regulations do not need to be taken into account for simplified transport, a few rules still have to be observed:

- › Marking and labelling (ADR chapter 5.2) must be complete and readable
  - › A 2 kg fire extinguisher (ADR section 8.1.4.1 (a)) must be carried.
  - › A shipping document (ADR section 5.4.1) must be carried.
- Of course, it is also generally required that the container:
- › is technically intact
  - › is tightly sealed during transport and, as applicable,
  - › that repeated inspection and testing have been carried out.

# CRAFTSMAN REGULATION

This refers to containers which are used based on the exceptional regulation according to ADR 1.1.3.1 c), the so-called "craftsman regulation".

ADR defines various exemptions and exceptional regulations, among others those in connection with the type of transport. For instance, according to subsection 1.1.3.1 c), the provisions of ADR do not apply to "transports which are carried out by companies in connection with their main task". At the same time, however, direct "internal or external supply operations" are excluded from this exemption.

## What does that mean?

The implementing directives for hazardous goods (RSEB) provide annotations on the ADR and the following definition on subsection 1.1.3.1 c):

### Section 1-6.1

Exempted are transports for direct use, e.g.

- › Paint in the vehicle of a painter
- › Oxygen or acetylene cylinders in the vehicle of a welder
- › Fuel for filling lawn mowers in the vehicle of a municipal employee

### Section 1-6.2

Intermediate supplies for fuel systems do not directly fall under

the exemption regulation of subsection 1.1.3.1 c).

Therefore, one precondition for making use of the so-called "craftsman regulation" is that the fuel (together with the machine) is transported directly in order to be consumed directly, while only residual quantities are transported back again.

The "craftsman regulation" does not include transports for distribution purposes, i.e. the supply of multiple machines on different construction sites (supply operations) as well as drives to the next service station (intermediate supplies), for instance. However, the "craftsman regulation" also indicates that containers can be used which are neither type-tested nor comprise a UN approval.

Notes on the use of the different container types can be found on page 36 f.

# STATIONARY USAGE

Mobile fuel systems, which are operated in one place for a specific operational purpose for a period of more than six months are regarded as stationary. They are then subject to the regulations of the German directive on systems to handle substances hazardous to water (AwSV).

# SHIPPING DOCUMENT

## What is a shipping document?

A shipping document is generally a shipping note with the following mandatory information according to ADR section 5.4.1.

The transport document is not bound to any layout and the position and order of the information may be freely selected.

The information on a), b), c), d) and k), however, must be specified in this order without any additional information, i.e. for diesel:

Pflichtangaben	Beispiel Diesel
a) The UN number of the substance.	[UN 1202]
b) The official designation of the substance.	[Diesel fuel]
c) The number of the hazard label/hazardous goods class.	[3]
d) The packing group of the substance.	[III]
e) Number and description of the transport item.	[1 unit, IBC]
f) The total quantity of hazardous goods.	[950 litres]
g) The name and address of the sender.	[Subconstruction company]
h) The name and address of the recipient.	[Subconstruction company – construction site X]
i) A declaration according to the provisions of a special agreement. (Naturally, this is only demanded if this is in fact the case!)	[Transport without exceeding the permitted limits defined in subsection 1.1.3.6]
j) --- (not specified in current ADR)	
k) The (if assigned) tunnel restriction code.	[D/E]