

# Packaging containers with UN approval

## What is a container with UN approval?

The person who fills a package with hazardous materials is responsible for its safety on dispatch. In a UN approved container you can transport hazardous goods safely without having to repack them and thus save costs.

## What is "UN-approved"?

The UN has drawn up a list of more than 6000 hazardous substances classified according to the risk that they represent; this determines their packaging group. Packaging group I (X) corresponds to a high degree of risk represented by the contents, e.g. very corrosive substances; packaging group II (Y) a medium degree of risk and packaging group III (Z) less hazardous substances.

The UN approval describes the type of packaging to be used for the transport of hazardous substances. The certificate is issued by recognized material testing institutes. In mass production the manufacturer must guarantee that the product meets the specifications for the type of packaging and that the packaging is manufactured and tested according to a quality assurance program recognized and monitored by the registration office.

## Test criteria (limits must not be infringed)

- ▶ chemical compatibility
- ▶ temperature
- ▶ flash point < 61 °C
- ▶ drop height
- ▶ pressure (i.e. vapor pressure of the contents plus partial pressure of any gases that may be present)
- ▶ packaging groups I, II, III (density kg/l)
- ▶ shelf life from filling date (if applicable)

## Approval numbers

- ▶ The identification contains the symbol for UN-tested packaging, the code for the container material, packaging group, test pressure in kPa, year of manufacture, country of approval, registration office, approval number and manufacturer.
- ▶ If the approval number contains a letter (e.g. F or S) in the position that would otherwise be occupied by the test pressure in kPa then the packaging is only approved for use with solids, not with liquids.
- ▶ New approval numbers apply for all types of transport, i.e. there is no longer any limitation to road, rail, sea or air transport.



**Transport bottle**  
UN-certified bottle for chemicals



**Wide-neck reagent bottle**  
rectangular/space-saving, sturdy, with UN approval for solids



**Aluminum bottle**



**Aluminium bottle**  
with UN-approval for the transport of dangerous goods



**Jerrycans**  
electrically conductive



**Jerrycans**  
stackable, made of transparent HDPE, space-saving



**Wide-mouth containers**  
extra-wide opening for secure filling



1B1 / X / 250 / 15 / D / BAM 1234 XYZ

Symbol for UN-tested packaging

Code for the container material

Packaging group

Test pressure in kPa

Year of manufacture and country of approval

Registration office, approval number and manufacturer