



TNO Certification B.V.

TNO-report

VERP 09.13917/PS

Packaging of dangerous goods

Packaging approval n. o. 2554

TNO Certification B.V.

Packaging Research

De Rondom 1

5612 AP Eindhoven

P.O. Box 2635

5600 HE Eindhoven

The Netherlands

Phone +31 40 265 03 26

Fax +31 40 265 03 02

Email packaging@quality.tno.nl

Date

March 2, 2009

Author(s)

P.J. Sikkens B.Sc.

Holder UN-mark

Mauser Benelux B.V.

P.O.Box 235

4900 AE OOSTERHOUT

THE NETHERLANDS

Manufacturer

Mauser Benelux B.V.

P.O.Box 235

4900 AE OOSTERHOUT

THE NETHERLANDS

TNO Project number

08.10168

Project manager

P.J. Sikkens B.Sc.

Number of pages

3

All rights reserved.

No part of this publication may be reproduced and/or published by print, photoprint microfilm or any other means without the previous written consent of TNO.

In case this report was drafted on instructions, the rights and obligations of contracting parties are subject to either the Standard Conditions for Research instructions given to TNO, or the relevant agreement concluded between the contracting parties. Submitting the report for inspection to parties who have direct interest is permitted.

Description of the packaging

Plastics drum with removable head

Packaging code : 1H2
Type identification : 60 l Vat-4 (060V4)
Drum material/grade : Polypropylene

Method of manufacturing : Injection moulding
Nominal capacity : 60 litres
Dimensions : 404 x 335 x 640 mm
Nominal mass : 1415 g
Closure device : Injection moulded lid:
- plain lid, nominal mass 350 g
- grip lid, nominal mass 372 g
- porthole lid, nominal mass 393 g
- insert lid, nominal mass 86 g

Lid material/grade : Polypropylene

Remark : Lid sealed to drum with adhesive hotmelt

Reference regulations

Sea transport : IMDG Code, 2006
Air transport : ICAO TI, 2007/2008
Road transport : ADR, 2007
Railway transport : RID, 2007

Reference reports

WIVA report : 94.076, dated April 14, 1994
TNO report : 94.10248, dated May 20, 1994
WIVA report : 94.089, dated December 15, 1994
TNO report : BU4.95/1114/KMG, dated January 13, 1995 (UN1769)
WIVA report : 94.098, dated June 15, 1995
TNO report : BU4.95/000964 1/ja, dated September 12, 1995
WIVA report : 98.138, dated October 2, 1998
TNO report : BU4.99/028741 1/PS, dated February 8, 1999
WIVA fax : Aanvulling deksels, dated July 5, 1999 (WIVA project no. 98057)
WIVA report : 99.145, dated July 8, 1999
WIVA report : 2000.151R4, dated June 6, 2000
WIVA report : 2000.155, dated February 2, 2001
WIVA letter : dated September 3, 2001
WIVA report : 2001.163, dated November 7, 2001
WIVA report : 2002.172, dated May 31, 2002
Mauser Benelux report : 2005.199, dated October 10, 2005
Mauser Benelux report : MB 2008.213, dated June 13, 2008
Mauser Benelux report : MB 2008.214, dated January 14, 2009

Contents to be transported

Solids belonging to packing group II and III with a maximum gross mass of 30 kg.

Characteristics of the test contents

- Expanded clay pallets with a bulk density of 500 kg/m³ and a particle size of 4-8 mm.
- Mixture of (non-infectious) medical waste with an (overall) apparent bulk density 500-600 kg/m³ and consisting of animal bones, flesh and fat (as a test dummy for pathological waste with a maximum bulk density of 1250 kg/m³), glass tubes with blood samples, hypodermic syringes, liquid filled glass ampoules and several kinds of disposals.
- Mixture of (non-infectious) medical waste with an (overall) apparent bulk density 500-1200 kg/m³ and consisting of animal bones, flesh and fat (as a test dummy for pathological waste with a maximum bulk density of 1250 kg/m³).

UN-mark

TNO Certification BV as competent authority has issued the following mark:

 1H2/Y30/S/--/NL/WIVA 2554

-- the last two numbers of the year in which the packaging was produced should be entered here.

This mark can be used by the holder of the UN-mark of the packaging, Mauser Benelux B.V., Oosterhout, The Netherlands, to indicate that the packagings produced meet the requirements.

Quality assurance

Manufacturing of packagings bearing this mark must be according to a quality assurance system as laid down by TNO Certification BV in the Guideline as applicable.

Use of packagings


The use of packagings of the approved type for the transport of dangerous goods has been laid down in the regulations applicable in the mode of transport.

Validity

This report replaces all approvals issued earlier.

The use of packagings, manufactured in a period in which a previous approval was valid, is allowed.


P.J. Sikkens B.Sc.
Project manager


Approved by:
A. de Vendt B.Sc.