



CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Dangerous Goods Packaging Approval

This is to certify that

Dangerous Goods Management Ltd

is approved to manufacture the following packaging:

Double Wall Bio Freeze Combination Packaging

The following specification markings shall be placed on the package in accordance with the Technical Instructions. The year of manufacture may alter with subsequent production of the packaging.



4GU/Class 6.2/13/NZ/CAA43582-22

This certificate is not transferable, and shall come into force on the 15th day of October 2013 and remain in force until the 15th day of October 2018 unless otherwise suspended or revoked.

Granted this 15th day of October 2013

A handwritten signature in dark ink, appearing to be 'H. P. ...', written over a horizontal line.

for Director of Civil Aviation

This certificate is granted pursuant to Civil Aviation Rule Part 92.53

No. 43582-22



DG OPS SPEC

Dangerous Goods Management Ltd

This Specification forms part of Certificate No. 43582-22 granted pursuant to CAR Part 92.53.

1. Section - Address for Service

Dangerous Goods Management Ltd
PO Box 53003
Auckland Airport
Manukau 2150

2. Section - Trading Names

Nil

3. Section - Nominated Senior Persons

Nil

4. Section - Packaging Details

Double Wall Bio Freeze Combination Packaging
Test Details Report No/Report Date/Facility/DOL/MOH

INZ43478-01

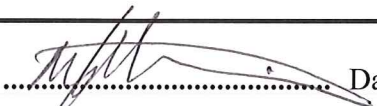
20-Apr-2004

SGS New Zealand Ltd

Packaging Type



4GU/Class6.2/13/NZ/CAA43582-22

Accepted By:  Dated 15 October 2013
Replaces Certificate Supplement Dated 15 November 2004

43582 Dangerous Goods Management Ltd

PACKAGING DESIGN APPROVAL CERTIFICATE No.: INZ43478-01

Client: **Dangerous Goods Management Ltd**

1. Packaging Details Supplied

Description: Double Wall Bio-Freeze Combination Packaging

Date of Manufacture: Jul 2013

Unique Identity Code: N/A

UN Code to be tested for: 4GU / Class 6.2

Packaging Group: N/A

Type of Substance: Liquids

Class: 6.2

2. Constructional Details:

2.1. Inner Receptacle of Combination

2.1.1. Unit Description: 3x Screw Top Glass Vial (as per photo)
Material/Grade/Specification: Glass
Overall Dimensions: Height x Diameter: 62 x 28 mm
Nominal Volume Rating: 45 ml
Tare Weight: 87g

2.1.2. Closure Description: Screw caps
Material/Grade/Specification: Plastic
Supplier: Arthur Holmes Ltd
Tare Weight: 3 g
Closure Requirement (Torque, etc.): Finger tight

2.1.3. Total Inner Receptacle Weight: 90 g

2.2. Secondary Receptacle of Combination

2.2.1. Unit Description: Double-wall bio-freeze bottle
Material/Grade/Specification: HDPE
Overall Dimensions: Height x Diameter: 250 x 145 mm
Nominal Volume Rating: 600 ml

2.2.2. Closure Description: Screw cap
Material/Grade/Specification: HDPE
Closure Requirement (Torque, etc.): Hand tight

2.2.3. Total Inner Receptacle Weight: 2 kg

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2.3. Cushioning/Absorbent Materials

2.3.1.	Unit Description:	Bubble wrap and sticker
	Size of bubble wrap bag:	325 x 210 x 5 mm
	Tare Weight:	11 g
	Closure Requirement:	Glass vials are wrapped in a bubble wrap, rolled, and taped closed.
2.3.2.	Unit Description:	Supasorb pad
	Tare Weight	2.6 g
	Location:	Inside plastic container
2.3.3.	Unit Description:	Expanded polystyrene supporting block
	Tare Weight	380 g
	Location:	Placed between carton and plastic bottle
2.3.4.	Total Weight:	394 g

2.4. Outer Package

2.4.1.	Description:	Fibreboard Carton
	Material/Grade/Specification:	Single walled corrugated fibreboard
	Overall Dimensions:	Height x Length x Width: 335 x 260 x 260 mm
	Manufacturers Joints:	Lapped and glued
	Closure Requirements:	Folded and tapped at the bottom; Folded and clipped in as per the design
2.4.2.	Tare Weight:	308 g

2.5.	Package Gross Weight:	2.8 kg
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3 Specification:

- 3.1 **IATA Dangerous Goods Regulations 54th Edition Effective 1 January 2013**
 Section 6: Packaging Specifications and Performance Tests:
 6.5 Infectious Substances Packagings
 Packaging Instructions 620 and 650
 6.2 Specifications for UN Outer, Single and Composite Packagings – 6.2.12 Fibreboard Boxes

4 Test Results of Combination Package:

4.1 6.5 Packagings for Infectious Substances of Category A

6.5.4 Tests

- 6.5.4.1.6 (d) Stacking Test according to Section 6.3.6 while empty:
 Conditions: 3 samples, loaded to at least 23kg each at ambient for 24 hours

Results: No failure in the outer packaging, **COMPLIES**

- 6.5.4.1.6 (e) Absorbent Material Test:
 Amount of pockets: 2

Results: Absorbed the entire liquid content of the inner receptacles,
COMPLIES

- 6.5.4.2 Samples prepared as for transport, primary receptacles were filled to 98% capacity with water/antifreeze water.

6.5.4.4 Drop Test:

- 6.5.4.4.1 Drop Height: 9 m

6.5.4.4.2 Drop Orientations:

5 samples dropped in sequence: Flat bottom
 Flat top
 Flat long side
 Flat short side
 Top corner

6.5.4.4.6 Water Spray Test:

5 samples were subjected to water spray that simulates exposure to rainfall of approximately 5 cm/hr for at least 1 hour and then subjected to drop test as per 6.5.4.4.1 and 6.5.4.4.2

Results: Nil leak or failure from primary receptacles, **COMPLIES**

6.5.4.4.7 Cold Conditioning Test:

5 samples were conditioned at -18°C or less for at least 24 hours, and then subjected to drop test as per 6.5.4.4.1 and 6.5.4.4.2

Results: Nil leak or failure from primary receptacles, **COMPLIES**

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6.5.4.5 Puncture Test

6.5.4.5.1 Sample gross weight less than 7 kg, drop rod onto sample.

Weight of cylindrical steel rod: 7 kg

Height of rod: 1 m

Samples orientations: 1 on Top,
1 on Side

Results: Nil leak or failure from primary receptacles, **COMPLIES**

4.2 Packaging Instructions 620 and 650

4.2.1 Leakproofness test on Secondary Packaging

Pressure: 95 kPa (0.95 bar, 13.8lb/in²)

Temperature: Ambient

Duration: 5 minutes

Results: Nil leaks or failure, **COMPLIES**

Note: A coat of silicone spray over the cap rubber seal was required to achieve the desired leakproofness. (Product: CRC 808 Silicone Spray)

4.3 6.2.12 Fibreboard Boxes

6.2.12.2 Cobb Test

Conditioning: Fibreboard was conditioned for at least 24 hours at
23 ± 2°C and 50 ± 2 % R.H.

Duration of test: 30 minutes

Criteria: 155 g/m² maximum

Results: 129 g/m², **COMPLIES**

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5. Summary:



4GU/Class6.2/13

(Markings as identified by competent authority)

- 1] The package prepared as for transport was tested in accordance with the appropriate provisions of Section 6. The leakproofness test was NOT carried out throughout the entire temperature range as required by the code. The use of other methods or components may render this test invalid.
- 2] Validity of packaging design approval: 5 years as identified by competent authority



Figure 1: Double-wall Bio-freeze combination packaging

Tested By: T Qiu (IANZ)

Date: 27th Sept 2013

Checked By: N Woods (IANZ)

Date: 27th Sept 2013

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 14 days only.