



Inspection / Investigation Report No. 04452021

U.S. Department of Transportation
Research & Special Programs Administration
Office of Hazardous Materials Enforcement

Inspection Location:

Clawson Container Company
4545 Clawson Tank Drive
Clarkston, MI 48346

Principal Office (if different):

Contact: Robert Harding, Vice-President,
Engineering Manager
Phone: 800-325-8700
Fax: 248-625-3376

Contact: Robert Harding, Vice-President,
Engineering Manager
Phone:

Type of Inspection: PACKAGE PURCHASING

Result: ENFORCEMENT REPORT

Inspector: LYNCH, THOMAS
Code: DHM-45.2

Signature:

Title: HAZARDOUS MATERIALS
ENFORCEMENT SPECIALIST

Supervisor Name: Billy Hines

Inspector #2:
Code:
Title:

Title: Chief, Southwest Region

Authorization Date: 11/12/2004

Summary of Inspection

On April 12, 2004, Hazardous Materials Enforcement Specialists Thomas J. Lynch, randomly selected, purchased and photographed from Eldorado Chemical Company, Inc., San Antonio, TX, 5 - UN standard 31HA1 design type (new) packagings for testing by the Research and Special Programs Administration's (RSPA) contracted testing facility. The packagings were 275-gallon composite intermediate bulk containers (IBC) marked, in part, "UN 31HA1/Y/10 03/USA/M4858/4052/2066/1070/62kg/100kpa." The inspector affixed evidence tape marked with an assigned report number to each IBC and photographed the packages (Exhibits 2 through 10). The packagings were subsequently shipped to the US Army Material Command, Logistics Support Activity, Packaging, Storage and Containerization Center (LOGSA), Tobyhanna, PA, by common carrier. The inspector obtained a copy of the packaging's closure instructions and design qualification test report from Mr. Robert Harding, Jr., Clawson Container Company, Clarkston, MI by fax (Exhibit 11).

No compliance inspection was conducted at Clawson Container Company (Clawson), Clarkston, MI. The probable violations described in this report are based upon the packagings purchased by the inspector on April

Clawson Container Company
Inspection / Investigation Report No. 04452021

12, 2004. The tests were performed by RSPA's contracted packaging testing laboratory, LOGSA, Tobyhanna, PA. LOGSA's test report dated July 9, 2004, indicates that the UN standard 31HA1 design type tested failed vibration and drop testing (Exhibit 12). Possible sanctions were explained during the exit briefing (Exhibit 1). Clawson is a manufacturer of various size plastic containers.

No correspondence has been received from Clawson following the inspection.

Violation Number: 1

Number Discovered: 5

49 CFR Section:

178.801(b)

178.810

178.819

Exhibit: 12, 13

Violation Description:

Representing, marking, certifying and selling UN standard 31HA1 design type packagings as meeting the requirements of the Hazardous Materials Regulations (HMR), when the specific design type was not capable of passing the vibration and drop tests, in violation of 49 CFR.

Evidence Summary:

The packagings were tested by LOGSA as prescribed by 49 CFR Section 178.801. LOGSA's Report Number 04452021, dated July 9, 2004, contains the test results for the UN standard 31HA1 packagings (Exhibit 12). LOGSA staff also video taped the testing of the packagings (Exhibit 13). The inspector also obtained a copy of the packaging's closure instructions and design qualification test report from Clawson, Clarkston, MI (Exhibit 11).

Section 178.801 requires a prescribed number of samples of a specially prepared design type packaging be subject to, and successfully pass, the prescribed test requirements in the order presented in the HMR. LOGSA's Report Number 04452021, reflects the results of the vibration test for three samples, all of which received a result of "FAIL" (Exhibit 12 page 6).

Section 178.810 requires a sample of a specially prepared design type packaging be subject to, and successfully pass, the prescribed drop test protocols. LOGSA's Report Number 04452021, reflects the results of the drop testing for two samples, both of which received a result of "FAIL" (Exhibit 12 page 6 and 7).

Section 178.801(b) states that is the responsibility of the IBC manufacturer to assure that each IBC is capable of passing the prescribed tests. Based upon LOGSA's test report, the packaging design type tested was not capable of successfully passing the vibration and drop tests.

Violation Number: 2

Number Discovered: *

49 CFR Section:
178.703(a)(1)(vii)

Exhibit: 2, 11

Violation Description:

Representing, marking, certifying and selling UN standard 31HA1 design type packagings as meeting the requirements of the HMR, when the specific design type was marked with the wrong stacking and tare weight for which it had not been tested, in violation of 49 CFR.

Evidence Summary:

Clawson's "UN DOT IBC QUALIFICATION REPORT #03-31199-2754", dated August 2003, states, in part, that "1.8 times the combined gross mass was used for the stacking test", i.e., $1.8 \times 2066 \text{ kg} = 3719 \text{ kg}$. However, the photographed IBC's were marked with a stacking weight of 4052 kg, which is 333 kg more than the IBC was design tested (Exhibit 11 page 2 and Exhibits 2 pages 5 and 6).

Also, Clawson's aforementioned test report states a "Tare Wt." for the 275-gallon IBC's is 73KG (160 lbs). However, the photographed IBC's were marked (embossed) with a tare weight of 62 kg (Exhibit 2 pages 5 and 6).

Section 178.703(a)(1)(vii) states the manufacturer must mark an IBC designed to carry a stacking weight, with the weight of the stacking load, in kilograms (kg). For IBC not design for stacking, the figure "0" must be shown. Section 178.703(b)(1)(ii) states that the tare mass of the IBC, in kilograms must also be marked on each packaging.

Violation Number: 3

Number Discovered: *

49 CFR Section:

178.801(l)(1)(6)

178.801(l)(1)(9)

Exhibit: 11

Violation Description:

Representing, marking, certifying and selling UN standard 31HA1 design type packagings as meeting the requirements of the HMR, when complete records of design qualification testing for those packages were missing required information as outlined in the HMR, in violation of 49 CFR.

Evidence Summary:

After reviewing Clawson's design qualification test records, the inspector noted the following information was missing (Exhibit 11 page 2)

- * description of the IBC design type, no description of the steel pallet (e.g., dimensions, materials, thickness, etc)

- * test description, weight actually used to perform bottom lift and stacking test (only gave formula) missing

Section 178.801(l)(6) and 178.801(l)(9) states that a description of the packaging design type and test description must be included in the test record retained.

Additional Information Pertaining to the Inspection:

No quality control items noted on the Exit Briefing (Exhibit 1).

No corrective action received within the 30-day time limit discussed during the Exit Briefing (Exhibit 1 page 4).

Exhibit Summary

Evidence		Obtained From		
No.	Description	Name, Title	Company	City, State
1	Exit Briefing		Inspector	
2	Packaging photo		Inspector	
3	Packaging photo		Inspector	
4	Packaging photo		Inspector	
5	Packaging photo		Inspector	
6	Packaging photo		Inspector	
7	Packaging photo		Inspector	
8	Packaging photo		Inspector	
9	Packaging photo		Inspector	
10	Package photo		Inspector	
11	Closure instructions and Design qualification test records.	Robert Harding, Jr., Vice-President, Engineering Manager	Clawson Container Company	Clarkston, MI
12	LOGSA test report	LOGSA, Staff	LOGSA	Tobyhanna, PA
13	Video tape	LOGSA, Staff	LOGSA	Tobyhanna, PA



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

Office of Hazardous
Materials Enforcement
Southwest Region

8701 South Gessner Road
Suite 1110
Houston, Texas 77074

October 8, 2004

Mr. Robert Harding, Jr.
Vice President Engineering Manager
Clawson Container Company
4545 Clawson Tank Drive
Clarkston, MI 48346

Dear Mr. Harding:

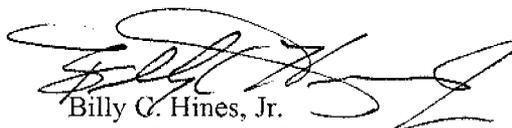
On April 12, 2004, an inspector from this office purchased five (new) of your "275-gallon 2SW" containers from Eldorado Chemical Company, Inc., San Antonio, TX. The containers were marked, in part, UN 31HA1/Y 0/03/USA/M4858/4052/2095/1070L/62KG/100KG, for the transportation of hazardous materials in accordance with the Hazardous Materials Regulations (HMR). The containers were submitted to a government contracted testing laboratory for analysis. The results of those tests are enclosed and forwarded for your information, comment and action.

Your facility self-certified and mark the UN standard 31HA1 composite intermediate bulk containers (IBC) as meeting the requirements of the HMR. However, as indicated by the test results, the containers were not capable of passing the vibration and drop tests as required by the HMR and therefore, the composite IBC's were not capable of successfully meeting the performance-oriented packaging testing requirements in Subpart O of 49 CFR, Part 178, Section 178.800. Section 178.801(b) states in part, "it is the responsibility of the IBC manufacturer to assure that each package is capable of passing the prescribed tests."

Please provide to this office your justification and mythology for certifying the packagings as you have done. You may submit any documentation to support your certification, including laboratory test results and any other information you believe relevant to the matter. If you agree that your testing protocols are incorrect, please take immediate corrective action to prevent any further violation of the HMR and provide us with information and documentation concerning that corrective action.

If a company representative(s) wishes to examine the test samples before making a formal response, arrangements can be made by contacting Dour Smith at (202) 366-4700. Further, enclosed is an Exit Briefing noting three probable violations based upon LOGSA's test report. Please review, sign and date page three and return by fax to this office. Your signature(s) on the Exit Briefing is not an expression of agreement with the findings, but only serves as an acknowledgment of receipt of a copy of the form. If you have any questions please contact Inspector Thomas J. Lynch at 713-270-1524, (fax) 713-270-9075. Please respond within five working days of receipt of this letter.

Sincerely,


Billy C. Hines, Jr.
Chief, Southwest Region

Attachments

U.S. DOT/RSPA/OHME/SOUTHWEST REGION
REPORT NUMBER: 04452021
EXHIBIT NUMBER: 1
PAGE NUMBER 1 OF 4



U.S. Department of Transportation

Research and Special Programs Administration

Office of Hazardous Materials Enforcement Southwest Region

8701 S. Gessner Road Suite 1110 Houston, Texas 77040

EXIT BRIEFING

(This document is not a final report.)

Date: 10/08/2004

Report Control #: 04452020 & 04452021

Company Name: Clawson Container Company

Address: 4545 Clawson Tank Drive, Clarkson, MI 48346

NAME OF INDIVIDUALS RECEIVING BRIEFING:

Name: Mr. Robert Harding, Jr. Title: Vice-President, Engineering Manager

Name: Title:

This has been a compliance inspection conducted in accordance with Title 49 U.S.C. Section 5121(c). This exit briefing addresses only the areas noted, and it is not a finding of general compliance in any other areas covered by the Hazardous Materials Regulations that were subject to the inspection.

During the course of the inspection the following probable violations of 49 CFR and/or quality control items were noted.

1). Sections: 171.2(c), 178.801, 178.810 and 178.819

Explanation: See enclosed LOGSA Testing Report No. 04452020, dated 09/30/2004.

* Inspector purchased five, 330-gallon (3SW) Intermediate Bulk Containers (IBC) marked, in part, "UN 31HA1 / Y / 10/03 /USA/M4858/..." for package testing.

* One failed the vibration test and three failed the drop tests.

2). Sections: 171.2(c) and 178.801(l)

Explanation: See Clawson's test record entitled "UN/DOT IBC QUALIFICATION REPORT – # 04-40399," dated February 2004, missing the following:

- * *Description of the IBC design type; no description of the steel pallet (e.g. dimensions, materials, thickness, etc.)*
- * *Test description; weight actually used in stack test (178.815) was not recorded, gave only a formula to be used.*

3). Sections: 171.2(c), 178.801, 178.810 and 178.819

Explanation: See enclosed LOGSA Testing Report No. 04452021, dated 07/09/2004.

- * *Inspector purchased five, 275-gallon (2SW) Intermediate Bulk Containers (IBC) marked, in part, " (UN) 31HA1 / Y / 10/03 /USA/M4858/..." for package testing.*
- * *Three failed vibration testing and two failed the drop tests.*

4). Sections: 171.2(c) and 178.703(a)(1)(iv)

Explanation: See Clawson's test record entitled "UN/DOT IBC QUALIFICATION REPORT – # 03-31199-275," dated August 2003.

- * *Containers were improperly marked with a stacking weight of 4052 kg. Clawson's test report states "loading to 1.8 times combined gross mass (1.8 x 2066 kg = 3719 kg)", which is 333 kg less than weight used in test. Also, test report states "4067/2066" but IBC marked "4052/2095."*
- * *Weight used in stack test must be marked in certification marking.*

5). Sections: 171.2(c) and 178.801(l)

Explanation: See Clawson's test record entitled "UN/DOT IBC QUALIFICATION REPORT – # 03-31199-275," dated August 2003, missing the following:

- * *Description of the IBC design type; no description of the steel pallet (e.g. dimensions, materials, thickness, etc.)*
- * *Test description; weight actually used in stack test (178.815) was not recorded, gave only formula to be used.*

This document is not a final report. The information gathered at this inspection and any probable violations noted will be reviewed prior to finalizing the report. Probable violation(s) may be removed or others may be added during this review. In addition, quality control items may be revised to become probable violations during this review.

Upon determination that a probable violation exists, the Associate Administrator for Hazardous Materials Safety is authorized to impose certain sanctions, including warning letters, tickets, compliance orders, and civil penalties. In addition, court actions, including injunctive or criminal proceedings, may be initiated. Title 49 U.S.C. Sections 5123 and 5124 provide for civil and criminal penalties for violation of the Hazardous Materials Regulations.

A civil penalty of not more than \$32,500, but not less than \$275, per violation may be imposed through administrative proceedings initiated by the Office of Chief Counsel of the Research and Special Programs Administration. When a criminal violation has been determined by a court, a fine, or imprisonment for not more than 5 years, or both, may be imposed for each violation.

The inspector does not determine which sanction, if any, may be imposed and cannot provide information concerning what proceedings will be initiated or sanctions imposed.

Documentation of corrective action submitted in writing to the inspector within 30 days of the inspection may be considered for mitigation should the sanction imposed result in the issuance of a notice proposing a civil penalty. However, any documented corrective action would not eliminate or preclude the initiation of a civil penalty proceeding, a finding of violation, or assessment of a civil penalty.

Our objective is to ensure a fair regulatory enforcement environment. If you feel you have been treated unfairly or unprofessionally, you may contact John O'Connell at 202-266-4700, or e-mail us at OHME-HQ@rspa.dot.gov. You also have a right to contact the Small Business Administration's National Ombudsman at 1-888-REGFAIR, or www.sba.gov/ombudsman regarding the fairness of the compliance and enforcement activities by this agency. The Research and Special Programs Administration strictly forbids retaliatory acts by its employees. As such, you should feel confident that you will not be penalized for expressing your concerns about compliance and enforcement activities.

I certify that I received the above briefing as it appears on this form. I understand that by signing this form I am in no way expressing agreement with its contents. I am only acknowledging that I have reviewed it and have received a copy.

T. Remaz Lynch
Signature of Inspector(s)

H.A. Holton
Signature of Representative(s)

10/7/04
Date

10/16/04
Date

PHOTOGRAPHIC EXHIBIT

Location: Eldorado Chemical Company, Inc.
San Antonio, TX

Photographer: Lynch, Thomas J



PHOTOGRAPHIC EXHIBIT

Location: Eldorado Chemical Company, Inc.
San Antonio, TX

Photographer: Lynch, Thomas J



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Location: Eldorado Chemical Company, Inc.
San Antonio, TX

Photographer: Lynch, Thomas J



PHOTOGRAPHIC EXHIBIT

Location: Eldorado Chemical Company, Inc.
San Antonio, TX

Photographer: Lynch, Thomas J



INVOICE

CLAWSON CONTAINER TERMS AND CONDITIONS OF SALE:



EXCLUSION OF WARRANTIES - THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE ARE EXCLUDED FROM THIS CONTRACT.

BUYER'S REMEDY - IF THE MATERIAL FURNISHED TO THE BUYER SHALL FAIL TO CONFORM TO THIS CONTRACT, EXPRESS OR IMPLIED WARRANTY, THE SELLER SHALL REPLACE SUCH NON-CONFORMING MATERIAL.

THE BUYER'S EXCLUSIVE AND SOLE REMEDY ON ACCOUNT OR IN RESPECT OF THE FURNISHING OF MATERIAL THAT DOES NOT CONFORM TO THIS CONTRACT, OR TO ANY EXPRESS OR IMPLIED WARRANTY, SHALL BE TO SECURE REPLACEMENT THEREOF AS AFORESAID. THE SELLER SHALL NOT IN ANY EVENT BE LIABLE FOR THE COST OF ANY LABOR EXPENDED ON ANY SUCH MATERIAL OR FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES TO ANYONE BY REASON OF THE FACT THAT SUCH MATERIAL DOES NOT CONFORM TO THIS CONTRACT OR TO ANY EXPRESS OR IMPLIED WARRANTY.

0102
01

Attention Regulatory Manager

49 CFR § (II) NOTICE

Per 49CFR§178.2(c)(ii), the below listed closures and gaskets were used to qualify Clawson Container Company's IBCs. You must use the approved gasket and closure tightened to the appropriate torque to meet the DOT Requirements.

ROTATIONALLY MOLDED 31H1, 31H2, 31HA1 AND 31HH1 CLOSURE DESCRIPTIONS

per below or print

LID: 17" HDPE with cross link #6 Poly gasket or 7" HDPE with O-flex or PE foam gasket, 2" PP emergency plug with EPDM, Viton® or Teflon® gasket; 2" vent (HDPE, 316 stainless steel, Hastelloy C with EPDM, Viton® or Teflon® gasket). Tighten 17" or 20" lid to 180 foot pounds, 7" lid to 40 foot pounds, 2" bung plug to 20 foot pounds.

BOTTOM DISCHARGE: 2" flange/valve/adapter combination (PP with glass and carbon black: EPDM, Viton® or Teflon® o-rings, Teflon® seats and stem bushings), 2" dust cap (PP with glass and carbon black and 2" EPDM, Viton® or Teflon® gasket) and 2" flange o-ring gasket (EPDM or Viton® or Teflon®). Tighten bolts to 210 inch pounds.

BLOW-MOLDED 31HA1 CLOSURE DESCRIPTIONS - per below or print



LID: 6" HDPE with Santoprene®, Viton® and EPDM combine, Viton®, EPDM or NBR gaskets and with or without 2" NPT bung. Tighten 6" or 9" lids to 30 foot pounds, Tighten 2" to 30 inch pounds.

BOTTOM DISCHARGE: 2" flange/valve/adapter combination (PP with glass and carbon black EPDM, Viton® or Teflon® o-rings, Teflon® seats and stem bushings), 2" dust cap (PP with glass and carbon black and 2" EPDM, Viton® or Teflon® gasket) and 2" flange o-ring gasket (EPDM or Viton® or Teflon®). 2" valve with metal collar outlet to be tightened to 45 foot pounds, or 2" valve with plastic collar outlet to be tightened to 36 foot pounds.

METAL 31A CLOSURE DESCRIPTIONS - per below or print

BUNG: 2" 304 stainless steel or carbon steel with EPDM, Teflon®, Viton®, silicone or Buna gasket. Tighten 2" bung plug to 10 foot pounds.

DRUM COVER: 22" stainless steel or carbon steel with Santoprene®, Viton®, silicone, Buna, neoprene or Teflon® gasket; bronze fusible vent with EPDM, Viton®, Buna silicone or Teflon® gasket; dead blow mallet to tap while tightening clamp ring.

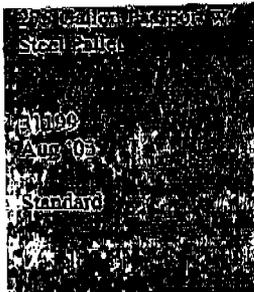
BOTTOM DISCHARGE: 2" 316 stainless steel or bronze ball valve, Teflon® seats & stem bushings and 2" PP or 316 steel plug with EPDM, Viton® or Teflon® gasket. Tighten bottom outlet assembly to 10 foot pounds.

U.S. DOT/RSPA/OHME/SOUTHWEST REGION
REPORT NUMBER: 04452021
EXHIBIT NUMBER: 11
PAGE NUMBER 1 OF 2

CLAWSON CONTAINER COMPANY
4545 CLAWSON TANK DRIVE
CLARKSTON, MI 48346

UN / DOT IBC QUALIFICATION REPORT #03-31199-275

Part Name



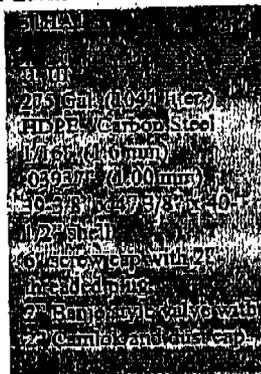
UN Design

Packing Group
Capacity
Material Type
Thickness - Nominal
- Minimum

Size
Opening Top

Bottom

Misc



Tare Wt.
Empty bottle Wt.
Gross Wt.

161 lbs. (73 kg)
41 lbs. (19 kg)
455 lbs. (206 kg)

Sp. Grav.

1.0

Print
Date

Customer

CFR 49 REF	UN/DOT TEST	TEST DESCRIPTION	FILLING SUBSTANCE	TEST DATE Month Year	TEST RESULT Pass or Fail
5178.819	VIBRATION	1 hr. on Rotary double amplitude vibration platform	Water	Aug '03	Pass
5178.811	BOTTOM LIFT	Container raised and lowered twice with fork truck, 3/4 penetration, from each position of entry	Water & Additional Load	Aug '03	Pass
5178.815	STACKING	Loaded to 1.8 x combined gross mass when stacked for 28 days at 40 degrees C (104 degrees F)	Water & Additional Load	Aug '03	Pass
5178.813	LEAKPROOF	3 PSIG (20 kPa) for 10 minutes with soap solution over entire surface	Compressed Air	Aug '03	Pass
5178.814	HYDROSTATIC	14.5 PSIG (100 kPa) for 10 minutes	Water	Aug '03	Pass
5176.810	DROP TEST	6' 3" (1.9 m) drop on flat unyielding surface. One pallet corner to hit first	Water & Anti-Freeze mixture cooled to -18 degrees C (0 degrees F) or Lower	Aug '03	Pass

COMMENTS -

UN MARKINGS: UN31HA1/Y/B 03/USA/M 1858/4067/2066/1070/73kg/100kPa/8 03/8 03

WITNESSED BY: [Signature]

APPROVED BY: [Signature]

THE TESTING WAS CARRIED OUT ON AN IBC WHICH WAS PREPARED AS FOR TRANSPORTATION AND TESTED IN ACCORDANCE WITH THE APPROPRIATE PROVISION OF CFR 49. MANUFACTURING AND TESTING FACILITY - IBC North.

Report Number: 04452021

Performance Oriented Packaging Testing
Of
Intermediate Bulk Containers

U.S. DOT/RSPA/OHME/SOUTHWEST REGION
REPORT NUMBER: 04452021
EXHIBIT NUMBER: 12
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Part 1. Report

Report Number: 04452021

Title: Performance Oriented Packaging Testing of Composite Intermediate Bulk Containers

Report Date(s): July 9, 2004

Revision Date: N/A

Performing Activity: LOGSA Packaging, Storage,
and Containerization Center
ATTN: AMXLS-AT
11 Hap Arnold Boulevard
Tobyhanna, PA 18466-5097

Performing Activity's Reference(s): TT 34-01; 8HTIR; TE 45-97

Requesting Organization:

U.S. Department of Transportation
Research and Special Programs Administration
Office of Hazardous Materials Enforcement
Attention: Mr. Douglas S. Smith, COTR, DHM-40
400 Seventh Street, S.W., Room 5410
Washington, DC 20590-0001

Requesting Organization's Reference(s):

- (1) Interagency Agreement No. DTRS56-01-X-0045, dated 8/5/01-8/4/04
- (2) Background test documentation-- Clawson Container Test Report #03-31199-275
- (3) Reference Documentation-- Clawson Container Closing Instructions
- (4) Title 49, Code of Federal Regulations, Parts 106-108, current as of October, 2003

Part 3. Test Preparation**Section I. Container Loading and Closing**

Five containers were received in good condition. For testing purposes, containers were marked 1-5, and sides were marked A-D.

For the vibration test, the container was loaded to a maximum capacity with water.

For the drop test, the container was filled to the maximum capacity with a 50% solution of propylene glycol.

Containers were closed per the closing instructions provided by Clawson. Specifically, the 2" bungs were torqued at the factory, and the 6" covers were torqued to 30 ft. lbs. at Tobyhanna.

Section II. Conditioning

For the drop test, containers were conditioned at 0° F for a period of 72 hours prior to testing. All other tests were performed at ambient conditions.

Part 2. Package Data:

Section I. Test Package Description

Steel and plastic composite with plastic bottle inside wire cage. Wire and steel pallet integral to container. 6" center cap with a 2" bung inside, and 2" discharge valve at base.

Identification Code:

U

N31HA1/Y/1003/USA/M4858/4052KG/2095KG/1070L/62KG/100kPa

31	Rigid container for liquids
HA1	Steel outer, plastic inner, for stacking
Y	PG II & III
10/03	October, 03
USA	Country of manufacture
M4858	Approval/certifying agency
4052KG	Stack test load (8,927 lb)
2095KG	Maximum gross mass (4615 lb)
1070L	Rated Capacity (282 gal)
62KG	Tare mass (137.0 lb)
100KPA	Hydrostatic test pressure
10/03	Date of Leak Test
10/03	Date of inspection

Section II. Markings, Dimensions, and Weight

A. Markings:

Sides B & D-- None

Side A (valve side)-- Embossed on steel plate - CLAWSONCONTAINER.COM



31HA1/Y/10/03/USA/M4858/4052/2095/1070L/62kg/100kPa/10/03/10/03

2SW

Molded into plastic bottle-- graduated markings in gallons and liters

Side C label-- 2KMVR Order # - Stock Size - 275 gal Pallet - Steel
Final Assembly checked by/Valve-Kamlock/Date/Final Inspection by

Top-- Date Clock  31HA1 M4858/USA

Bottom-- None

B. Dimensions:

Nominal Exterior Dimensions (container)-- 40" by 46½" by 45¼"

	Plastic	Steel Rod
Nominal Material Thickness-- Top -	.132" (3.35mm)	Horizontal - .236" (6.0mm)
Side -	.109" (2.77mm)	Vertical - .201" (5.12mm)
Corner -	.150" (3.82mm)	

C. Weight:

Tare weight-- 137.0 lbs. (62 Kg)

Part 4: Test**Section I. Individual Test Discussions and Results**

Containers were subjected to the applicable tests in the order presented as specified in 49 CFR §178.803.

Container #1 - Vibration (49 CFR §178.819) Test Date: 26 May 04

Discussion: Container #1 was filled to 98% of maximum capacity as noted in Part III, Section I, and placed on a 4,000 lb. vibration table. The vertical linear motion of the table was adjusted to 161 RPMs, the point at which a .063" metal strap could be inserted between the table and the container base. After 1 minute the container began leaking at the 6" bung.

Test Duration: 1 minute

Test Result: FAIL

Container #2 - Vibration (49 CFR §178.819) Test Date: 26 May 04

Discussion: Container #2 was filled to 98% of maximum capacity as noted in Part III, Section I, and placed on a 4,000 lb. vibration table. The vertical linear motion of the table was adjusted to 230 RPMs, the point at which a .063" metal strap could be inserted between the table and the container base. After 2 minutes the plastic section developed cracks on sides B and D.

Test Duration: 2 minutes

Test Result: FAIL

Container #3 - Vibration (49 CFR §178.819) Test Date: 27 May 04

Discussion: Container #3 was filled to 98% of maximum capacity as noted in Part III, Section I, and placed on a 4,000 lb. vibration table*.

*The vibration table was put into motion. After several minutes, the table malfunctioned. The test was resumed on 2 June using a 12,000 lb. vibration table. The vertical linear motion was adjusted to 207 RPMs, the point at which a .063" metal strap could be inserted between the table and the container base. After 45 minutes, the inner container developed a crease and broke at the top corner of sides B and C.

Test Duration: 45 minutes

Test Result: FAIL

Container #4 - Drop (49 CFR §178.810) Test Date: 10 June 04

Discussion: Container #4 was filled to 98% of capacity with propylene glycol mixture, conditioned for 72 hrs. @ 0° F, lifted to the specified height of 6.2 feet, and dropped onto a steel plate on the bottom of the container. Upon impact, the valve broke off and the contents were released.

Test Result: FAIL

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Part 4. Test: Section I (continued)**Container #5 - Drop (49 CFR §178.810) Test Date: 10 June 04**

Discussion: Container #5 was filled to 98% of capacity with propylene glycol mixture, conditioned for 72 hrs. @ 0° F, lifted to the specified height of 6.2 feet, and dropped onto a steel plate on the bottom of the container. Upon impact, the valve broke off and the contents were released.

Test Result: FAIL

NOTE: The DOT Inspector instructed LOGSA PSCC Testing Laboratory to do the vibration test until there was a pass. If there were no passes by the 3rd specimen, the last two specimens were to be drop tested.

Section II. Test Personnel

The following personnel performed the aforementioned testing, or had a role in the testing, evaluation, and/or documentation, as reported herein-- Richard D. LaFave, Stuart N. Crouse, Michael J. Barnansky and Karen K. Kimsey

Section III. Equipment

Item	Manufacturer	Serial No.	Calibration Expiration Date
12,000-lb vibration table	M/RAD Woburn, MA	563-84	see note
4,000-lb vibration table	Gaynes Engr. Co. Franklin Park, IL	G20765	see note
10,000-lb scale	J.J. McIntyre & Sons USA	5931A	4/05
Drop tester	Lansmont Corp. Monterey, CA	M-12906	N/R
Digital Caliper	L.S. Starrett Athol, MA	99190365	3/05
Torque wrench (150 ft-lb)	Norbar Torque Tools Banberry, UK	2003/431074	10/04
Walk-in chamber	Tenney Environmental Williamsport, PA	27218	4/05

Note. Equipment is calibrated in accordance with International Safe Transit Association test equipment verification requirements, ANSI/ISO 17025 (General Requirements for the Competence of Testing and Calibration Laboratories) and TB 43180 (Calibration and Repair Requirements for the Maintenance of Army Materiel).



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

Office of Hazardous
Materials Enforcement
Southwest Region

8701 South Gessner Road
Suite 1110
Houston, Texas 77074

October 8, 2004

Mr. Robert Harding, Jr.
Vice President Engineering Manager
Clawson Container Company
4545 Clawson Tank Drive
Clarkston, MI 48346

Dear Mr. Harding:

I have been informed by Inspector Thomas J. Lynch of your request for a copy of the video tape of recent package testing conducted on UN standard 31HA1 composite, intermediate bulk containers (IBC) manufactured by your facility. The video tape was produced by the U.S. Army Materiel Command Logistics Support Activity (LOGSA), Tobyhanna, Pennsylvania under an interagency agreement with the US DOT, Research and Special Programs Administration (RSPA) and OHME. In response to your request, I am enclosing a copy of the video tape which references Reports No. 04452021 which represents the testing of your UN standard 31HA1 IBC marked, in part, "UN 31HA1/Y 10/03/USA/M4858...."

If you have any questions regarding this tape, please contact Inspector Lynch at (713) 272-2812.

Sincerely,



Billy C. Hines, Jr.
Chief, Southwest Region

Enclosure

U.S. DOT/RSPA/OHME/SOUTHWEST REGION
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