

**Oak Ridge National Laboratory (ORNL)
Transportation and Packaging Management (TPM)
Container Preparation and Filling Instructions/Checklist**

UN 85 Gallon Salvage Open Head (OH) Steel Drum

ORNL-CHK-28, Rev. 3

Issued: 5/15/1997

Revised: 2/1/2006

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INSTRUCTIONS: Complete the activities requested following the instructions below. Activities should be checked off as performed. The completed checklist should then be signed by the Operating Personnel completing the checklist and submitted to the Operations Supervisor for approval for shipment.

NOTE 1: The 85 gallon Salvage open head steel drum is UN marked for containing hazardous materials packagings as solid materials.

NOTE 2: The Salvage drum is intended for use in the shipment of damaged, defective, non-conforming, or leaking packages, or packages that have leaked or spilled and is used *only* for purposes of transport for recovery or disposal. The hazardous material must be compatible with the Salvage drum, its internal lining, as well as the internal packagings, and contain sufficient cushioning and absorbent material. The Salvage drum, and its contents, is authorized only for shipment for repackaging or disposal.

NOTE 3: The maximum allowable gross weight is embossed (bottom) and marked (side) on each drum in kilograms [ex., 400 kilograms (880 lbs)]. Allowable weight applies to Packaging Groups I, II, or III solid materials.

NOTE 4: Salvage drum lids used during in-house storage which contain vents/pressure relief devices must be removed and replaced with the original non-vented lid prior to offering for shipment.

**A. PRE-LOADING INSTRUCTIONS FOR
UN 1A2/X 85 Gallon Salvage OH Carbon Steel Drum
Stores Catalog No. 02-112-6430**

Note: Items marked (#) are solely generator's/filler's responsibility.

**Operating
Personnel**

- _____ 1. (#) Inspect the drum to be filled to ensure that it is in good physical condition and that no critical dents/damages, severe corrosion, etc. exist that could cause or develop into a leak during normal storage or in transportation.
- _____ 2. **WHEN** packaging hazardous materials/wastes in defective packaging as set-forth in [NOTE 2](#) above; **THEN**, ensure that the drum, with contents and internal packagings, meet the requirements/limitations specified in [NOTE 3](#) above.
- _____ 3. (#)Ensure there is sufficient and compatible absorbent material in the drum to eliminate any free liquid from the damaged packaging into the Salvage drum at the time of closing.
- _____ 4. Ensure there is sufficient and compatible cushioning material to prevent excessive movement of the damaged package within the Salvage drum.

FOR INTERNAL USE ONLY

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**A. PRE-LOADING INSTRUCTIONS FOR
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Operating
Personnel

- _____ 5. (#) Ensure that the material being filled into the drum is compatible with (will not react, corrode, or attack) the inside clear coating and internal steel of the drum.
- _____ 6. Ensure that the Salvage drum lid does not contain vents/relief devices when offered for shipment. Refer to [NOTE 4](#) on page one.

**B. CLOSING INSTRUCTIONS FOR
UN 1A2/X 85 Gallon Salvage OH Carbon Steel Drum
Stores Catalog No. 02-112-6430**

- _____ 1. For drums from *Greif Bros.* (drums marked **GBC**) see [Attachment #1](#).

NOTE: Drums must be closed in accordance with the specific instructions furnished, and tested, by the manufacturer for each specific type/size drum, in order to be in compliance with **DOT HAZMAT** regulations. [49 CFR, §78.2(c)(1)]

**C. POST-LOADING INSTRUCTIONS FOR
UN 1A2/X 85 Gallon Salvage OH Carbon Steel Drum
Stores Catalog No. 02-112-6430**

- _____ 1. Label and mark the drum in accordance with the markings on the damaged packagings and the current ORNL/Department of Transportation (DOT) requirements. For off-site shipments, contact the ORNL Transportation and Packaging Management Organization for appropriate DOT marking and labeling.
- _____ 2. Sign and date the checklist in the appropriate signature block verifying that the activities have been performed and the checklist completed.
- _____ 3. Submit this completed checklist to the Operations Supervisor for approval for shipment.

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**C. POST-LOADING INSTRUCTIONS FOR
UN 1A2/X 85 Gallon Salvage OH Carbon Steel Drum
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**Operations
Supervisor**

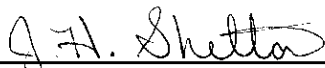
- _____ 4. Verify that all defined activities have been successfully completed.
- _____ 5. Sign and date the checklist in the appropriate signature block, approving the container for shipment.

APPROVED FOR SHIPMENT:

Operating Personnel:	Date:
Operations Supervisor:	Date:

Prepared by: ORNL TPM Organization

Approved by:



Jeff Shelton, Manager (576-6401)
ORNL TPM - Packaging Operations

February 1, 2006

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ATTACHMENT #1

FULL OPEN TOP STEEL DRUM
WITH BOLTED RING CLOSURE

LME5-6430

FORM # 002-S

DRUM CODE: Q85 BR 1.4-1.4-1.4

CUSTOMER Lockheed Martin

GBC ORDER NO. _____

DATE: 08/11/99

GREIF BROS. CORPORATION CLOSURE NOTIFICATION FORM

85 gal Salvage

Pursuant to the requirements of the Department of Transportation in CFR 49 Part 178.2(c)(1), this is your notification of the closing method used for the containers sold to you on the attached delivery ticket or bill of lading. This method of closure should be used to ensure that your containers have been closed in the same manner as when they were initially tested. If there is any question regarding proper closing methods, contact your local Greif salesperson or manufacturing facility.

To Close:

- 1) Place cover on drum.
- 2) Snap the closing ring over the cover and top lip of the drum. Make sure the ring's lugs point down below the ring. Also, make sure the bottom edge of the closing ring engages under the lip of the drum.
- 3) Insert the bolt through the lug without threads. Next, screw on the locking nut. Finally, screw the bolt into the thread lug.
- 4) While tightening the bolt, tap the entire perimeter of the ring with a mallet, starting directly across from the bolt.
- 5) Tighten the bolt until 50 foot pounds of torque is reached. The cover and ring should not spin, but the free ends of the rim should have a 1/4" space maximum.
- 6) Tighten the locking nut against the lug without threads. This prevents the bolt from backing out of the closing ring.
- 7) Drums closed in this manner have met the UN performance test requirements as specified in the container markings.

Received by Customer _____

Date _____

RF-749-A

ORIGINAL - CUSTOMER COPY

YELLOW - FILE COPY

REV-JG-11/04/98

DISCLAIMERS

Tests were conducted using water for liquid containers, sand and sawdust for solid containers, or water and anti-freeze mixture for plastic drums used to contain liquids. Your product may adversely affect container materials, bung threads, or closing devices. Product compatibility with the container is a shipper's responsibility.

These instructions for container closure are based upon the closure methods used to enable these containers to pass the United Nations test requirements as outlined by the UN marking on the package.

These closure recommendations do not take into account any hazards present in your facility, or the handling, filling, or shipping of your product. The use of sparkless tools and proper safety equipment is recommended. Consult your supervisor for your special safety precautions.

Any containers used for packing of hazardous materials should be inspected prior to filling and shipment. Containers with obvious damage or deterioration should not be filled or shipped.

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